

THESIS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

Wild Poethics

Exploring relational and embodied
practices in urban-making

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CHALMERS UNIVERSITY OF TECHNOLOGY
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Abstract

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Nature is not something separated from the city. With this in mind, this research emerges from the act of urban gardening, staging space for naturecultures that reinforce a direct relation to an urban nature. Alternate agencies can motivate ecological mindsets in urban approaches, bypass the hegemonic and paralysing attitude of the Anthropocene and render a more profound relation with the spatial environment. This catalyses a potential in embodied methodologies to generate vibrant materialist relations in urban-making.

The research is positioned with a two-fold challenge; urban-making and naturecultures. The aim is to reorientate methodologies in urban-making to approach relational space matters, and promote ecological poethics relevant for practice, research and education. Three thresholds of engagement structure the exploration: the embodied, the relational and the situated. Alongside explorative practices are built up cartographies of theoretical neighbourhoods that provide alternate knowledge generation on individual, shared and collective levels. Experimental embodied interventions are grounded in artistic research through choreographical approaches using Butoh, Body Weather and swarm-behaviour practices. These approaches are set in a voyage-metaphor to a fictional *Island of Encounters* reaching four destinations. Each *encounter* unravels a particular perspective into relational and embodied practice: Alba (body/curiosity), Agora (fiction/performance), Clinamen (atmosphere/imagination), and Plūris (metaphor/swarming). A methodological choreography which corresponds with the theoretical cartographies, reveals and opens up for an urban-making founded in situated knowledges to generate a corporeal *poethics* – poetic, politic, and ethical. As the activated practice unfolds, interventions are supported by their theoretical neighbourhoods nested in feminist spatial practice, vibrant relationscapes, worlding, affective atmospheres, imagination, spatial-temporal in-betweenness and assemblage-thinking. Accompanying each destination are five film essay(s), each pertaining to the particular artistic interventions in the research.

Using corporeal imagination and re-enactment modes of enquiry such as thinking with paper modelled texts, creating fictocriticisms with clouds, using dynamic biomimesis, and mimicking swarms, generates an enlivened relation with naturecultures that gestures the body into becoming a reflective and profound membrane with space. By encountering and immersing the body in a space/time construct, a critical materiality practice emerges that can infuse urban-making, render the body a more refined medium and reactivate architectural thinking and making.

Keywords: urban-making, embodied methodology, artistic research, relational assemblages, naturecultures, imagination, critical spatial feminist practice, choreography, poethics, affective atmospheres.

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For collaborations, I wish to thank the Gröna Linjen team, the Living Archives team, and to Butoh dancers Caroline Lundblad and Carmen Olsson for my training and introducing me to this wonderful form all these years, and to Hyekyung Imottesjo for our work together on Urban CoMapper. Also, thank you to all Chalmers students who participated in the interventions and workshops, especially Danni Tian and Johannes Luchmun. To Lena Falkheden, Emilio Da Cruz Brandao, Inger-Lise Syversen, I thank you for your belief and continued interest in my research. I am grateful for my PhD colleagues; Thierry Berlemont, Jonathan Geib and Hyekyung Imottesjo for your enduring positive encouragement and fabulous company. To Marie Koldkjær Højlund, Ami Skånberg Dahlstedt, Lisa Bomble, Johanna Eriksson, Pernilla Hagbert, Helena Hansson, Marie Markman and Sigrid Östlund for being a part of this journey. And, to Åse Eg Jørgensen for her astute graphic input. Gratitude must extend to Meike Schalk for her invaluable feedback at 50% seminar, and Eeva Berglund at 90%. Lastly, to Doina Petrescu and the examining committee – Elke Krasny, Derek McCormack, and Gunnar Sandin – the dream team, for their commitment and engaging discussion at the final PhD defence.

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Preface

In my first year I heard a lecture by Professor of industrial design Alain Findeli who laid out the particularities of doing a PhD. He drew two parallel lines above each other. One line represented academia; the researcher, the theorist, the practitioner. The other line, specifically drawn above, was the personal line; the woman, the foreigner, the body (hungry, tired, inspired, beguiled), with her thoughts and emotions that emerged along the way. He spoke to an audience of about 20 fresh-eyed doctoral students, explaining how the journey ahead contained both lines and that each should be taken care of and nurtured if they are to remain positive and fruitful experiences. He was correct; this PhD has proved itself to be a parallel of both worlds; in good and in difficult moments.

As the PhD began, and as the knowing moved along, it was entangled in my personal life. It knotted into my immersed research into gardening. As a result, the academic work slowly manoeuvred further into the corporeal activity as well, my body began to be included in the research practice. In essence, the thesis took on the body as a result of the gardening. From the beginning, the central challenge was urban food, which also became the theoretical, philosophical and very much intimate material in the 'everyday' of the doctorate.

All in all, what began as a PhD in urban sustainable development through a lens of urban agriculture, ripened into something more intimate and personal in terms of what it means to be a human species using their own body as part of this effort. And how the emotive, sensorial and visceral factors of urban-making weave into the parallel lines of the PhD as a practitioner, a researcher, and a human species. And, in turn, how this influences architectural research, education and professional orientation.

My professional and research background has strongly influenced my research and sheds light on the logic of my argument above. There are three periods that have led me here; the architect in training, the architect in practice internationally, and the architect bridging into explorative and artistic enquiry. All three have been motivated by the same ethos – towards an ecological objective. Living abroad, I received my first Bachelor/Master education (1994-1999) from the University of Oregon in the United States, one of the first US architecture departments using ecological design as their pedagogic driver. Following my training, I worked for several international firms both in the US and UK where their main focus was on ecological projects and research. When I moved back to Europe to the United Kingdom, London, I needed to supplement my US education with a Part 3 RIBA education and received a second degree for practicing as an architect in Europe. With this came the opportunity to work for diverse firms in London. Offices included small firms such as Anne Thorne Architects Partnership conducting a feminist approach to ecology to social housing and schools, to larger firms such as Ove Arup,

Shigeru Ban, and Grimshaws who concentrated on material research, aesthetics and mechanics of environmental design. In my professional practice, I worked between interfaces of practice and research; I joined the Foresight and Innovation Research & Development team at Arup's. I took the leading role alongside Michael Pawlyn for creating the Green Research Group at Grimshaw. Pawlyn became a mentor, who opened up the opportunity for me to practice biomimicry as an ecological approach to architecture both at Grimshaw and later at Exploration Architecture (2006 to 2009). However, my first contact with the field of biomimicry came in 2003 straight from the source, Janine Benyus, when I worked with her at Arups doing research into biomimetics for the publication 'Drivers of Change'. The world of mimicry has taken an important role in my work and in this thesis also. An organism's form and visceral intuition help them survive: for procreation, thermo-regulation, food-finding, protection and how they view and treat their surroundings. It seemed natural to keep exploring further modes to take biomimicry into the urban realm. At Exploration Architecture, biomimicry morphed into a study of edible routes through London, and it was at this stage that urban foodscapes began to shape my work as a vital, vibrant and active urban-making device. I wanted to understand why food was not considered as a viable resource for urban-making whilst energy, wind and water were so readily discussed? Food itself is an energy source, and a common resource to all species. Consequently in 2009, I established my own atelier while simultaneously collaborating with the transdisciplinary research laboratory FoAM in Brussels and started a branch of their Nordic studio in Stockholm in 2010. My practice at this stage was part of the 'explorative and artistic enquiry' phase. I was awarded an artistic grant from Innovativ Kultur by the Stockholm Municipality to study the interface overlaps between food, biomimicry and artistic urban practice. This resulted in a publication entitled 'Foodprints' in 2012, supported by extensive travel to numerous urban gardening interventions throughout Europe and the United States.

Now, a decade into this alternate form of urban-making, I have had the marvellous opportunity to continue this research in depth. In this thesis, there has been the potential to critically evaluate several standpoints of what it means to make ecological cities. Personal questions have arisen; what is nature for urbanism and what nature am I trying to protect when I practice and teach? I am no longer just an 'architect', I am an in-between practitioner in the interfaces between various organisms (biomimicry), urban materiality, art, food, bodily practice and philosophy. I recognize the shortcomings to sole use of technology to tackle environmental challenges, after all, how does technology solve the relationship between nature and humans? And, why do nature and humans continue in a binary composition when approaching urban design? What remains in my approach is the same ambition, how to encourage ecological cities, lifestyles and ways of becoming whether through teaching, research and/or practice. The PhD has involved reorientating myself as an architect, an artist and an ecological thinker working from all three interfaces simultaneously. The work has brought me to use the body as a living and acting methodology. I have challenged the way I practice, learn about and teach urban-making and placed it under diverse conditions. These conditions explore alternative approaches to ecological

design within art, architecture, and urbanism with a peripheral attentiveness to edible matter by using the corporeal encounter as a mode for inquiry to situate the everyday body.

Biomimicry is not considered an artistic practice, however, I would argue that the immersion of it into a transdisciplinary process reflects an artistic practice. Translation from biology into architecture may prove uncomfortable but it creates the opportunity for an ‘otherly’ thinking that opens up for different approaches. For instance, in my collaborating with biologists, we would use diverse methods of design such as making models mimicking animal forms to find the best conditions for efficient and resilient structure. One insect in particular – the Namibian fog basking beetle – took a central role. On this occasion, I worked with carpenters to create mock-ups for the beetle’s form to mimic the process it uses to harvesting water in a very dry climate. Some would argue that this is not architecture, but, this tiny beetle came to give my practice at Exploration Architecture one of our largest commissions, the Sahara Forest Project. The purpose is that though biomimicry is not an artistic practice, it does entail an artistic process and thinking. It finds its best solutions in the imagination through nature.

My first encounter of crossing art with environmental activism was at the COP15 Cultures Futures’ Symposium and conference in Copenhagen DK. The symposium, in preparation for COP15 summit, brought together creative experts to discuss the role of art in climate change. There I met Nik Gaffney – director of FoAM with Maja Kuzmanovic, which would provide the path for my extended artistic practice. FoAM is a transdisciplinary laboratory, with studios in Brussels, Amsterdam, Cornwall, and in Sweden where I am. We are an international network of artists, gardeners, chefs, IT designers, architects, astronauts, composers etc. who gather collaboratively for larger artistic cultural grants working under the motto of ‘grow your own worlds.’ As a practitioner, I continue to work with FoAM and to teach in the interfaces of biomimicry, art, urbanism and food. All these experiences have given me the opportunity to work with a span of incredible disciplines; from ecologists Louise Hård af Segerstad and Fredrik Moberg at the Stockholm Resilience centre for the eco-systemic conditions, designers from Nordic networks to artists who span from performance, textile and food design, chefs, poets, visual artists, singers and sound artists, to circus acrobats and other bodily ‘dance’ artists. These encounters have played a significant role in the ongoing shift in my practice and also in creating the AHA festival at Chalmers University which investigates the muddled interfaces between art and science. Through these experiences, I have found that creative approaches to environmental challenges have potential to reach and include more stakeholders and transdisciplinary collaborations in comprehensive manners. This playful perspective helps in unravelling the complexity through creative and curious processes that can readily inspire more audiences.

Along the PhD journey, there was a transformation in the way I view *sustainability*. The word had lost steam. Therefore, my undertaking is not to use the ‘S’ *word* unless it appears in a quote. This has nothing to do with beyond sustainability or beyond green. But rather, I want to explore through the interventions and the language I use, the complexity of what it means to become a practitioner who cares about urban-making for the planet. I intentionally use the key term

urban-making throughout in order to link the action (making) to the environment (urban). The term will be further unfolded in the introduction of chapter 1.

Consequently, many things have transformed for me during the doctorate. This thesis has been a journey of looking for answers, experiences and new forms of exploration in urban-making. Whilst beforehand I had worked for various architectural firms that were technocratically motivated using green technology (Arup, Grimshaw, Shigeru Ban, Exploration Architecture), I am not certain I can return to teaching about these experiences in the same way as before. The knowledge and skill gained in the past years has given me a more critical voice and profound view, or as Donna Haraway reveals, a mode of '*staying with the trouble*'. This critical knowing asks for all bodies to become physically involved in the trouble. For me, this has been a *becoming* of a different kind and it is why this PhD is dedicated to the body. Specifically, this call for *encounter* is a call for generating relations. The body is an entity we can all relate to, understand, and move with. It links us in a commons with every other living species who also have bodies that relate back to us.

List of Papers and other Publications

Scientific Journal Publications

Paper 1 Orrù, A.M., (2015). Extracting Urban Food Potential: design-based methods for digital and bodily cartography. *Future of Food: Journal on Food, Agriculture and Society*, 3(1 Special Issue: Finding Spaces for Productive Cities), pp.48–62. Available at: <http://fofj.org/index.php/journal/article/view/147>.

Conference Papers and Abstract Presentations

Paper 2 Orrù, A.M., (2015). Time for an Urban (Re)evolution - Negotiating Body, Space and Food. In *The 1st PARSE Biennial Research Conference on Time*. Gothenburg, Sweden.

Paper 3 Orrù, A.M., (2017). Corporeal Encounters with Farmscapes: curating an embodied methodology for ecological urban-making. In *8th AESOP Sustainable Food Planning Conference*. Coventry, UK. (paper accompanied with film)

Paper 4 Orrù, A.M., (2017). Body Weathering-nebular intentions. In *Art of Research Conference*. Helsinki, Finland. (paper accompanied with film)

Abstract Presentations

Orrù, A.M., (2012). ‘Foodprints’ - a project investigating the role of Artistic and Design-based research within urban agriculture. In *4th AESOP Sustainable Food Planning Conference*. Berlin, Germany. (November 2012)

Orrù, A.M., Schaffer, C., (2013). ‘Alternative Foodscapes: The potential of food in sustainable urban development through an increase in organoleptic quality and social cohesion. In *IV EUGEO Congress Conference*. Rome, Italy. (September 2013)

Orrù, A.M., Imottesjo, H. (formerly Lim), (2014). CO-MAPPING: The Sustainable Compact and Green City. In *IGU Urban Commission Conference*. Poznan, Poland. (August 2014)

Other Publications

Licentiate Thesis Orrù, A.M., (2016). *Organoleptic Interfaces: Exploring Embodied Methods in Foodscapes*. Chalmers University of Technology. Available at: <https://publications.lib.chalmers.se>

Essay 1 Orrù, A.M., (2016). Matkultur. Framtidens metabolismer. In Spridd, ed. *Future People’s Palace*. Stockholm, Sweden, pp. 123–154 (Chapter in a Compilation)

Chapter Orrù, A.M., (2017). Extracting Urban Green Potential: Critical Design-Based Use of Digital and Bodily Cartography Methods (part IX, Chapter 44). In *Agriculture in an Urbanizing Society Volume 2: Proceedings of the 6th AESOP Conference on Sustainable Food Planning*. Cambridge Scholars Publishing. Newcastle upon Tyne, UK, p. 1097-1122.

Book Orrù, A.M., (2012). *Foodprints, Innovativ Kultur: Kulturförvaltningen*, Sweden. Available at: www.annamariaorru.com/Foodprints

Digest Series

Orrù, A.M., (2015). *Digest 01 Green Line*, Gothenburg, Sweden: Vegetable Lamb Press

Orrù, A.M., (2015). *Digest 02 Urban CoMapper*, Gothenburg, Sweden: Vegetable Lamb Press

Orrù, A.M., (2015). *Digest 03 Instant Cartography*, Gothenburg, Sweden: Vegetable Lamb Press

Orrù, A.M., (2015). *Digest 04 Transit: A Swarm in Five Acts*. Gothenburg, Sweden: Vegetable Lamb Press.

Orrù, A.M., (2017). *Digest 05 Organoleptic Paper Interfaces*. Pietrasanta, Italy: Vegetable Lamb Press.

Orrù, A.M., (2017). *Digest 06 Butoh Meets Architecture*. Pietrasanta, Italy: Vegetable Lamb Press

Orrù, A.M., (2017). *Digest 07 Body Weathering*. Pietrasanta, Italy: Vegetable Lamb Press

Available at: www.vegetablelambpress.com

List of Film Essays

Encounter 1 (chapter 3)

Frauke – How to be invisible (Credits: Frauke & Robert Eklund 2013)

Bodily choreography – Butoh Workshop (Credits: Anna Maria Orrù 2014)

Stone Butoh – Burial and birth (Credits: Anna Maria Orrù 2017)

Encounter 2 (chapter 4)

Organoleptic Interfaces (Credits: Anna Maria Orrù 2014)

Encounter 3 (chapter 5)

Body Weathering – Nebular intentions (Credits: Wiredfly & Anna Maria Orrù 2017)

Encounter 4 (chapter 6)

Transit – A swarm in four movements (Credits: Wiredfly & Anna Maria Orrù 2017)

NOTE: All links to films: www.annamariaorru.com/Publications

List of Events

Festivals and exhibitions

Orrù, A.M., Christensson, P., Caldenby, C. et al., (2014). AHA! Festival 2014. Göteborg: Chalmers University of Technology.

Orrù, A.M., Christensson, P., Caldenby, C. et al., (2015). AHA! Festival 2015. Göteborg: Chalmers University of Technology.

Orrù, A.M., Nilsson, F., Christensson, P. et al., (2016). AHA! Festival 2016. Göteborg: Chalmers University of Technology.

Moderna Museet, (2017). Making Effect Exhibition: Insights and Overview of the Research Projects. [exhibition]. Stockholm, Sweden. Retrieved August 25, 2017, from: <https://www.architecturemakingeffect.se/exhibition-1/>

AHA Festival, (2017). AHA! Art & Science Festival Exhibition: Encountering: artistic research in architecture. [exhibition]. Gothenburg, SE: Chalmers University of Technology. Retrieved October 25, 2017, from: <http://ahafestival.se/>

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List of Abbreviations

aaa – Atelier d'Architecture Autogérée
AESOP – Association of European Schools of Planning
COP – Conference of the Parties (United Nations Framework Convention on Climate Change)
CPUL – Continuous Productive Urban Landscapes
EUGEO – The Association of Geographical Societies in Europe.
FAO – Food and Agriculture Organisation of the United Nations
Formas – Swedish Research Council
IFPRA – International Federation of Parks and Recreation Administration
IGU – International Geographical Commission: Urban Geography Commission
PARSE – Platform for Artistic Research Sweden
ResArc – Swedish Research School in Architecture (resarc.se)
SF – Speculative fabulation
UA – Urban agriculture
UG – Urban gardening

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Intermission

A letter to Mr. Beckett

March 7, 2012

Dear Mr. Beckett,

There has been much to read about the Anthropocene, which I would think interests you as well. You have a certain bleakness to your writing, but I thought I would ask you specifically about one play in particular.

I have been reading 'Waiting for Godot', as my loving companion recommended it when we were discussing the Anthropocene. It seems to me, there is an analogy to make between the two subjects. Godot may be used as a metaphor, a static and grand one nevertheless, but a metaphor that can correlate with this act of waiting. For me it likens to a paralysis of sorts. Similar to the paralysis caused by the Anthropocene. I intend to explain this further, just wait.

Dark, mute, doomed. No redemption there.

Only, a loss of hope...

We wait, this humanity waits. It waits for technological solutions to make it acceptable to keep depleting resources. For the politicians to organise themselves and agree. For the green businesses to revolutionize the way some live and work. All in all, humanity waits for 'someone' or 'something' else to take care of the environmental challenges. It waits for stronger signs of climate change. It buckles in the seatbelt, and waits in hope that it won't be as bad as the scientists are telling us. Bruno Latour brings up an interesting point when it comes to scientific statistics about climate change. He says:

'How are we supposed to react when faced with a piece of news like this one from Le Monde on Tuesday, May 7, 2013:

"At Mauna Loa, on Friday May 3, the concentration of CO₂ was reaching 399.29 ppm" How can we absorb the odd novelty of the headline: "The amount of CO₂ in the air is the highest it has been for more than 2.5 million years—the threshold of 400 ppm of CO₂, the main agent of global warming, is going to be crossed this year"?' (Latour 2014, p. 1)

He is right, what are we to do? I cannot grasp the mental, physical nor emotional capacity to deal with this. Neither can Latour. How should my body react to this news? He further expresses this inability so eloquently,

'people are not equipped with the mental and emotional repertoire to deal with such a vast

scale of events; that they have difficulty submitting to such a rapid acceleration for which, in addition, they are supposed to feel responsible while, in the meantime, this call for action has none of the traits of their older revolutionary dreams' (ibid).

It is an action that does not arrive because inaction seems to be an easier course. But, is this it? Are we to continue waiting? Waiting for what? Waiting for Godot? The Anthropocene is one story, but I prefer another. Another story that summons movement, that motivates the body to intervene, a body to encounter this darkness beyond the stage curtains.

So, I write to you about this inaction, this paralysis, this waiting in vain. I write to you about the 'deer in the headlights'; the story of our encounter, and the journey we shall embark on. Where does this deer come from? He comes from the backstage landscape, to bring a playful hope and to take us into differently orientated encounters of potential. Encounters that nudge us away from the place we are waiting in, towards a land of curiosity-driven interventions encouraging an agential role for humans and nonhumans. And therefore, the relations constructed along the way are supporting. The encounters on this journey find ways to generate these kinships; a relation to the clumsy word nature, and a relation to transform architectural agenda and thinking.

Along the journey I write to the deer in the headlights for it is her who has brought the topic of Anthropocene to my attention. We met in an encounter and she introduced me to several other encounters, and enlightened me to the actuality that we can move, be moved, and move together in many ways.

The boys: Estragon, Vladimir and Pozzo are still huddled at Giacometti's tree – waiting for Godot (Beckett 1954). Please send them along my way. Tell them they have rights, they have not given them away. There is no commitment to continue waiting for Godot, it is a vague supplication. If they continue to wait, their pockets will remain empty, and all the resources will run out. The only commitment to be had is to keep going, spade in hand, to try all we might to live in care for nature, for the environment, for the ground, for a future and for a survival. Again, we must stay with the trouble.

*Sincerely yours,
Anna Maria Orrù*



gröna linjen safari
survival guide



TELIA 3G

17:59

216.66.81.48

58 %

Survey

Potential Foodscape Site

challenges

- mean neighbours
- industrial site = bad soil
- who owns this land?
- we need funding/supplies
- vandalism exists
- heavy traffic nearby
- there's no place to sit

Anything else you want to tell us?

Cancel

OK



























• Karl-Henrik Åsberg • Gunnar Arvidsson • Lars Erik Arlebo • Göran Amborger • Jan Arvidsson • Arne Aronsson • Dan Aronsson • Inge Aronsson • Börje Arrdal • R. Arvidson • Petter Arvidson • Olie Arvidson • Lars Arvidsson • Lars Arvidsson • Ing-Marie Askner • Olie Askler • Christer Askne • Ingemar Asplund • Nicholas Asplund • Jan Assarsson • Eva Asztély • Jan Attri • Göran Avås • Anders Axelsson • Bror Axelsson • Göte Axelsson • Harald Axelsson • Ingemar Axelsson • Rune Axelsson • Stellan Axelsson • Lennart Axhamn • Christian Baartid • Birger Back • Leif Backé • Gösta Backmark • Patrik Baldemark • Bengt Banck • Håkan Bard • Bengt Barne • Anders Belfrage • Bengt Belfrage • Bengt Bengtsson • Bengt Bengtsson • Britta Bartholdson • Jan Bartholdson • Hans Baumann • C. Bergström • Ingvar Bengtsson • Märta-Lena Bengtsson • Kjell Bengtsson • Magnus Bengtsson • Per-Olov Bengtsson • Rune Bengtsson • Svante Bengtsson • Benjegård • Jan Berg • Lars Berg • Lars-Erik Berg • Bror Bergbom • Tommy Bergdahl • Johan Berg • Lars Bergenheim • Nils Berggren • John-Olof Berggren • Mats Berggren • Svante Erik Berggren • Ulla-Britt Bergqvist • Thomas Berglin • Jan Bergqvist • Arne Bergman • Carl-Ivar Bergman • Kenneth Bergman • Mats Bergqvist • Henrik Bergqvist • Karl Bergqvist • Svante Bergqvist • Lars Ulrik Bergström • Leif Bergström • Mats Bergström • Tomas Bergström







SWARM RULES
HAVE NO
CENTRAL
COORDINATION

Max
400 KG

A3

© Wiredfly: Urte Oettinger, Johan Oettinger



PART ONE

OUTSETS

chapter one

urban-making and relational becomings

Introduction

This thesis begins with my hands immersed in the soil. In this simple and satisfying act, I come to realise that my body has a greater agency when I garden because I participate in the making of spatial configurations that play a critical role in the urban public realm. In doing so, I connect directly to the complex relationality that broader space is made of, and I develop a reformed relationship to the space simply through the gesture of dipping hand into soil. On contemplating this bodily contact further, I want to understand why gardening is important for encouraging an ecological ethics in *urban* space by opening up to explore other means of using the body and how it can contribute to this ethics. After all, not everybody wants to garden but everybody does have a form of bodily contact with space. In this dynamic relationship, how can embodied and situated practice stimulate an ecological reorientation with space that gestures a deeper commitment and a *poethical* approach to nature?¹

The term '*poethics*' is a crucial catalyst throughout as it stems from encouraging ethos as a poetic and political embarking, and reconfiguring it into a mode of relationality. Alongside poethics is the term 'wild' which hints at the ecological ethics driving the research, but it also gestures to the complexity of nature, all of which is discussed in depth in chapter 2. The two terms 'Wild Poethics' form the rebellious mould on which to critically and creatively inquire processes of spatial, social, ecological and ethic-political emergence in urban-making through the poetic explorations of chapters 3-6. The thesis intends to find new ways of becoming environmentally responsible by exploring the implications of the corporeal in critical spatial practice taking into consideration naturecultures.² It is concerned with exploring and developing alternate embodied methodologies for how the body can be involved in ecological urban-making and becoming

1 The term *nature* is complex and will be further elaborated in chapter 2, however, my initial entrance into the discourse has been through the act and research into the urban gardening movement published in the licentiate (Orrù 2016).

2 Natureculture is an important term that will be further unfolded in chapter 2 (specifically section entitled Natureculture nodes). Briefly, Donna Haraway (2003) refers to human | non-human relations as 'naturecultures' in her Companion Species Manifesto which allows us to think through these relationships from a horizontal perspective.

responsible. These new ways of responsibility connect to reorientated knowledge practices, therefore, I stage interventions as artistic and practice-based endeavours in order to formulate and put forth such new practices.³ The four knowledge-searching approaches are referred to as 'encounters' with (see section on An encounter with interventions): Body/curiosity (chapter 3 – encounter 1), fiction/performance (chapter 4 – encounter 2), imagination/atmosphere (chapter 5 – encounter 3), and mimicry/swarming (chapter 6 – encounter 4). These approaches are drawn from critical spatial practice that, in a period of ecological vulnerability, give the body and movement a more central place in architectural practice and theory. I open up to new perspectives on the relationships between body(ies) and urban space by exploring the potential of embodied knowledge in architectural practice, to add a straightforward bodily dimension to research about spatial relations between human and humans and nonhuman: a vibrant matter (Bennett 2010). I expand on theoretical perspectives by exploring alternate methods for practice and further the discourse on how the idea and knowledge of architecture can be reorientated in order to be more relevant for the ecological ethics our society is looking for. It is necessary to keep the urban-making at the fore while finding other ways to approach ecological matters that rethink action and perspectives towards an urban nature and forge efforts and spaces to think and act outside market trajectories. By introducing urban-making as a term, I want to highlight the necessity of making, thinking and doing when activating the complex relationality between bodies, materialities and spaces in the process of becoming urban. But why use the body? One simple answer is that in order to face environmental behaviour and challenges, all bodies must be included – human and nonhuman. The first part of the challenge is how, and the second is why? The why is relatively easily answered – because policy and technology approaches are not enough in terms of shifting behaviour and transforming it. They are not enough in terms of building an ecological ethos and in giving agency to all included 'bodies', the nonhuman ones as well. A shift in urban kinship and creation of spaces with the specific capacity to act need to emerge in order to envisage new forms and modes for understanding and exploring urban life. The how then is the challenge, and the remainder of the thesis attempts to explore this poetically through four encounters.

Research Entrance Points

Scene roots

This thesis maintains that there is a lack of the corporeal by enduring a non-visceral approach in urban-making. If urban inhabitants are to become agents for ecological everyday living, truly

³ Another term for knowledge practices is knowledge-production, although I must confess that I feel uncomfortable with the term itself due to its 'productive' capacity and link to a capitalistic language which I try to avoid in this thesis. Furthermore, I feel that knowledge-production sits uncomfortably in artistic research. I have therefore decided to use knowledge-practice, commonly used in the humanities, or knowledge generation.

the body must become a central method within urban research. The body is a crucial ingredient to study the complex relation urban inhabitants have with nature. But nature is not an innocent concept and has a variety of diverse motifs (chapter 2). Which nature, whose nature and how nature is crucial to situate and is explored via way of the embodied methods and theoretical neighbourhoods.

The research challenge presented throughout is two-fold as all the research aims deal with both urban-making and with the natureculture approach. I approach this challenge at an embodied level in order to investigate the body's potential role to enable situated knowledge practices. Though the urban gardening offers the potential to level out and make horizontal this binary relationship between nature and culture and opened up the background for the research work, it needed more profound exploration. In the licentiate, I explored the garden with the potential it holds for becoming an arena for a poethical practice. This is where the politics of urban space can be discussed, where ecological living and ethics can be taught, talked about, practiced and moulded because a certain poetry and creativity takes place in the act of growing. The garden became the space for the initial manifestations to occur because of its neutrality and in-betweenness. It behaves as a catalyst to begin my queries. Urban gardens, or rather 'foodscapes', have become a well-studied thematic in the past decade (Bohn and Viljoen 2014), and for the sake of clarity, the research has initially concentrated on the foodscape condition of growing food.⁴ Within the scope of my research, foodscapes refer to spaces where food is grown as part of urban-making. The research considers the direct physical planting, the setting, the preparing, and the instinct to set up this 'activity' as a transformative form of instigating ecologically ethical behaviour in urban cities. The act of growing food asks for a new bodily relation with urban space and between urban inhabitants – human and nonhuman. Food activist and writer Michael Pollan (1995, p. 190-191) describes the agency of the gardener as 'a creator of ecologies. In this sense the garden could provide a powerful paradigm of how urban cultures can operate, and how we can move forward as humans in addressing the many ecological challenges of contemporary globalism.' Growing food allows a glimpse into the studying of relations through using relations. Relation to the ground, to seasons, and to our own body and other bodies. I refer to this as a corporeal and relational poethics and use both as key terms in the research.

Scene setting

The research presented in this thesis addresses alternate ways to deepen relational involvement through the body in architectural thinking and urban-making. The overall aim with the research is to suggest relevant methodological choreographies and cartographies bridging between corporeal practice and theoretical configured settings that can enhance relational architectural

4 Foodscape entails a number of definitions. The term 'foodscapes', originates from the field of geography and refers to urban food environments (MacKendrick 2014). In urban studies, foodscapes consider places and spaces where food is acquired, prepared, bought, traded, produced, talked about, and shared. Foodscapes are spatial, social and cultural spaces, in which actors encounter food-related matters such as gardening, eating, cooking etc.

thinking and alter outlets for knowledge generation responding to increased demands for ecological urban-making in society.⁵

It responds to extensive challenges in contemporary society to enhance ecological awareness and insight in urban-making as new kinds of situated commitment, and to provide alternate outlets for urban transformation considering aspects of the political, the making and its approaches to beauty through making (poetics) and the ethical – the poethics of urban-making. This requires vital and critical reconsidering of human relationships to nature and culture, expressed as natureculture, which concerns not the least, embodied dimensions of being in the world, and the need to enhance an affective and caring understanding of the worldly environments we are a part of. Hence, the research is anchored in an embodied, relational and contextual approach to aspects of the human-urban-nature complexity (see research aims).

The methodology is based in artistic research that involves experimental as well as theoretical components. It contributes to architectural knowledge generation, expanding on the themes of urban gardening and foodscapes, and explores modes to promote awareness of corporeal aspects in order to deepen the contextual insights of embodied approaches that indicate new directions for relational action. Hence, the methodology is intended to open up for new modes of fostering architectural insights into urban naturecultures. And furthermore, it aspires to provide a more profound relational knowledge approach into the humans-urban-natureculture complexity that is grounded in corporeal-material and theoretical-artistic knowledge practices. At length, it intends to form a stable basis for gradual change in architectural thinking-doing-learning to provide means for necessary reorientations in urban-making and ecological transformation, in other words, to bring about a poethical turn in the urban-making.

The thesis is intended to be inspiring and useful for professional practice, research and education; for authorities, organizations and participants with engagement in urban gardening, foodscapes and urban public space transformation; for expanded democratic processes in urban-making; and for more profound architectural thinking and academic research within this knowledge domain.

Phase 1 of the research contained garden-based explorations, and was published half point of the thesis, in the licentiate work *Organoleptic Interfaces* (Orrù 2016), partly also included in the catalogue here. It grounds the arguments that urban gardening has effect on the public realm by inciting growing stewards to change how they use urban commons, think about foodscapes and provide a frame through which people can generate agency via their own situated knowledges and experiences. The gardening topic has also initially helped to level out the binary discussion about natureculture division.

Phase two of the research, which is presented in this thesis, further explores extended acts of gardening and urban foodscapes as a corporeal practice in relation with the space and

⁵ The term urban-making integrates traits such as transformation of urban space and time, urban matters, urban processes, urban thinking and urban socio-ecological behaviour.

soil, searching new understandings between body, space and time contexts, as well as a more permeated and wide-ranging awareness of relational space.

Therefore, the reflective practices of Butoh, Body weather and Swarming are introduced in the research. They tap into the knowledge embedded in the acts of gardening and foodscapes in urban-making, and help to bring out the ethical and relational layers. As reflective practices, they offer methods that go beyond the descriptive methodologies of phase 1.

The findings show that the embodied and the relational are needed in order to solve the complexity of challenges addressed in urban-making, and demonstrates and that the body must be included in the research process. Hence, the methodology in phase 2 aims to open up more profound knowledge practices of embodiment associated with extended aspects of gardening and foodscapes on individual, inter-subjective, shared and collective levels, to indicate alternate ways to approach the relational aspects in architectural thinking, and to bring about a poethical turn in the urban-making.

Research dynamics – bringing in the organoleptic

or•gan•olep•tic *adjective.*

- 1: being, affecting, or relating to qualities (as taste, colour, odour, and feel) of a substance (as a food or drug) that stimulate the sense organs
- 2: involving use of the sense organs
- 3: organoleptic properties are the aspects of food or other substances as experienced by the senses, including taste, sight, smell and touch

in•ter•face *noun.*

- 1: a surface forming a common boundary between adjacent regions, bodies, substances, or phases
- 2: a point at which independent systems or diverse groups interact

The direct correlation to the sensorial, framed within the concept of *Organoleptic Interfaces*, has navigated this research from the beginning as a critical aspect of embodied practices. The organoleptic arose from my research into food studies and urban agriculture, while interfaces denoted the various overlapping fields in the research. I first stumbled across the word organoleptic at the Sustainable Food Planning Berlin Conference in 2014. Wiskerke and Viljoen (2012, p. 20) utilize it to denote urban food challenges, they state, 'Irrespective of food, if cities are to expand as predicted, and residents are to remain connected to seasonal cycles, the outdoors, and a sensual experience of the world urban organoleptics, then the spatial implications of new

food paradigms need to be considered.⁶ My initial research interpretation of the compound was to view it as stimulating the corporeal senses. I assumed that there is a sensorial link and relationship between the foodscape, the senses, and behaviour, and that the senses play a leading role in the production of design processes and space. I realized that senses do not act in isolation, but that they are activated through diverse bodily engagements such as gardening. Cultural historian Constance Classen has particularly underlain my research into the sensorial realm as a merging with eco-logic too. She writes,

‘As we rethink urban design within the context of ecological sustainability, we need to look for urban models that can fruitfully sustain our sensory lives. The best way to encourage people to commit themselves to new modes of urban existence is by engaging them through pleasurable sensory experiences: green pleasures, rediscovered and reimagined through a revitalised cityscape: [...] the aesthetic of sustainability is not about recovering preindustrial ways of life or making cities into green machines for living. Rather, such an aesthetic calls for new ways of perceiving and interacting with Earth and its inhabitants, based on justice, compassion and cooperation – the sharing of pleasure. Think of green pleasures as a way to cultivate a more ecological way of relating to the world, with both our minds and our bodies’ (Classen 2010, p. 73).

Hence, building on Wiskerske's and Viljoen's definition, I interpret urban organoleptic to denote sensorial qualities not only associated in food but also in urban spaces as a confrontation and experience between the body, sense and space. Through the contact with foodscapes, the senses are engaged. Hence I assumed that the organoleptic experience space could stimulate ecological commitments. With the encounters in phase 1, I became aware that the significant impact of the sensorial experience in the corporeal research was important to develop further. Indeed, the encounters themselves became the intended aim, rather than confirm a particular sensorial truth, to open up for ongoing embodied-driven methodologies.

I began to doubt the urban response to current environmental challenges as I saw an untapped potential to approach these issues from more alternate, critical, intimate and corporeal practices. In making these shifts in the research process, I moved from an architecturally recognizable and comfortable place (*cartography, mapping*) to more unknown contexts (*choreography*).

Initial groundwork

As mentioned, the early research work in phase 1 started with hands immersed in soil through gardening – an embodied act. For 3 years I was involved in two gardening community projects in Stockholm – Hornstull and Mälarpiraternas – and continued cultivating gardening projects at home throughout the research. In addition, I travelled extensively to visit urban farms prior

6 In urban agriculture literature, I found that Wiskerske and Viljoen (2012) also bring up the a related term ‘urban organoleptic’, but their use of it differs from the way in which I interpret it through my research. Specifically, they use the term in regards to a decline in the organoleptic quality and diversity in food varieties due to the focus on high production of mono-varieties, the standardisation of production and processing techniques, and strict food hygiene rules and regulations.

and during the research period (Canada, Usa, Belgium, Italy, France, Netherlands, Germany). Foodprints and Essay 2 from the publications list, are both a collection of my visits to these sites. I have chosen to include them as publications because this active research is important to the spatial resonance explored in the Butoh work which, although it does not take place in urban garden sites, is intended as a thinking through this space typology. The use of my body in these sites and with gardening led me to the Butoh itself, as well as my work into biomimicry. These initial research methods were framed into two categories: digital and bodily cartography (phase 1), gradually moving to bodily choreography (phase 2) which is the research focus in this thesis (see figure 2 at the end of chapter 1).⁷ I have chosen to include the systematically-driven phase 1 interventions in the PhD because they provide the groundwork for my shift into the bodily choreography research. A more in-depth description of phase 1 sits in the catalogue section of the PhD. However, here I provide a summary of these interventions as they reposition the research from an instrumental 'finding' to an adaptation of embodied methods that build up to the encounters (chapters 3-6).

Phase 1

During phase 1, the Gröna Linjen Platform was set up as a vibrant transdisciplinary unit that came together around our common commitment to food and farming activities in Stockholm; virtually, digitally and in real-life. We created a variety of interventions with the public that introduced them to urban gardening sites, provided opportunity for dialogue, introduced critical cartographical approaches, and contributed to the food movement by providing an alternative meeting space for the urban citizen with Stockholm planners. The Gröna Linjen immersions, Safari and Urban CoMapper, became strong catalysts for exploring cartography through diverse forms of bodily 'mapping.' Their playful nature and collective experiencing inspired citizens to participate more readily than through normative participatory planning events. Our task was to provide an alternative channel for interaction with planners and we drew in a diverse audience of all ages from all regions of Stockholm, representing a wide range of stakeholders; citizens, planners, experts, artists etc.⁸

The digital and bodily cartography looked to organising cartographic modes of inquiry staging various modes of movement and immersion into several existing and potential sites for foodscapes. The bodily cartography experiments in this phase put the body into many forms of practice; cycling on a green safari, intercepting the space by foot, experiencing through the mouth and stomach, planting a seed or experiencing the outcome of a freshly planted crop. This series of interventions was aimed at placing the body in various explorative junctions in the context of foodscape. For example, the safari placed the body into several actions and movements

7 Also, for a graphic description of the PhD time-line see figure 1 opposite page to figure 2.

8 The Gröna Linjen team staged the following immersions: Safari 1 and Safari 2 (expeditions through existing and potential growing sites), Urban CoMapper (an alternative digital smart phone app for urban agriculture), and Instant Cartographer (an intervention examining mapping as memory).

such as bicycling, walking, eating, gardening, sitting, talking, close, far, near, soon...over. The Urban CoMapper intended to make the body stop and reflect into the digital device, a moment of silence and withdrawal from the safari group. Furthermore, by staging the experiments at different seasons, activated and amplified the senses in different ways and pointed to the notion of time and seasonality in the research (chapter 5).

The main purpose of the cartography is as a medium that brings to the fore ways of moving through the urban landscape and tracing a series of embodied immersions, not as a device for drawing borders and territories. The body is inside a map, and at times, the body is the map.⁹ In Marta Mendonça's (2010, p. 325) mapping exercises for naming in-between spaces in Portugal, she relays the agency of mapping in relation to the body, 'The individual is a body of experiences and a cognitive preceptor, thus 'a mapper'. What emerges from this bodily mapping is precisely what Haraway refers to as situated knowledge, for what was invisible becomes visible and an experience.¹⁰ These immersed knowledge practices of alternate urban activities become agents in themselves; they are embodied stewards, knowledge containers, and means for transformative behaviour to occur. The importance of weaving in-between nature spaces into the urban fabric, these 'gaps in an urban life-world' as Mendonça refers to them, is crucial for modelling alternate natural qualities in the city but also for staging relationships.

Mendonça describes the intention of in-between urban spaces as a way to 'investigate ways of supporting the social and perceptual integration of urban components, transforming these spaces into a continuous urban experience' (Mendonça 2010, p. 325). The importance of such spatial integration is that it promotes relation-making for humans and nonhumans, stomachs to food, space to inhabitant's hands and so forth. Architect Doina Petrescu supports such potentials for cultivating relationships and refers to them as *relationscapes* in her projects at Atelier d'Architecture Autogérée (aaa), a concept which will be picked up again in the chapter on spatial agency (chapter 4) and in assemblages (chapter 6). She writes,

'Together with other tactical devices, the mapping process itself worked for us like a plug-in; an activity that was added to the project to help us make visible to and discuss with others the facts and things that would have otherwise remained invisible and non-articulated (for example, the evolutive roles of a person or a device, the changes in the

9 This brought up an interesting relation between the cartography and choreography inherent in the research because it became clear that both modes of exploration were entangled. The PhD has transitioned from mapping as a cartography to mapping as a choreography in phase 2, when the body becomes a central artefact in the investigations. However, the cartography becomes apparent again once the encounters were set onto a cartographical construct of interventions in four encounters. In fact, the theoretical neighbourhoods too bring in a type of cartography of theory between theory and practice (see section on Research aims).

10 Situated Knowledge is a notion introduced by Donna Haraway (1988) that is expanded in Chapter three: 'An embodied prism'. The parameters of a situated practice are entangled in sense-making. Nel Janssens (2012) views sense-making as a poetic knowledge building; as a form of transdisciplinarity not only in practice but also in theory development. She notes that sense-making allows for situational awareness and reflection to occur in situations of highly complexity and uncertainty, as is the case with environmental challenges. Poetic knowledge building is closely connected to sense-building, supported by an poethical approach in the research.

motivations of certain users, transformation in use, and so on)' (Petrescu 2012, p. 139).

Such relation-making interventions in the urban space can hone in the potential that they are no longer seen as occasional acupuncture points in the city, but rather, they can become a seamless urban signalling for another way of living in the city and cohabiting with others including nature. Whether you participate in them, or are a mere passer-by, there is still an impact.

Another platform included in phase 1 to which I was invited to partake was the Living Archives research unit at Malmö University (see Catalogue), where I created the Instant Cartography intervention. This research overlapped the practice of mapping as memory and form of contact. The group had been exploring archives as living matter and as vibrant social resources by using somatically-driven methodologies and cases for embodiment.

The list of interventions below is a brief outline for phase 1. A table listing these interventions and their research questions is available in the catalogue.

- **Safari 1 and 2** – The team staged urban safaris used to explore the digital and cartography research on two overland bike-ride expeditions tracing distinct routes of food growing in Stockholm. These events intended to foster interest and know-how about urban farming, encourage a tactile engagement with the city's edible fabric, knit together existing farming initiatives, and showcase potential sites for gardening. The body was activated as a main interface to explore and engage with soil (gardening), body (biking, walking) and stomach (eating).
- **Urban CoMapper** – This is a digital cartography interface created as a smart phone app designed record urban green potential in both existing and potential urban farming sites. The interface's intention was to build a virtual platform where citizens, the urban environment and experts could collaborate through critical mapping and contribute to the urban green planning process.
- **Instant cartography** – The intention was discovery, memory and way-finding. Similar to eating, 'showing the way' is a basic human condition, and participants were asked to arrive to find transient guides who would provide them with hand-drawn maps to find their way back to the urban garden at Leonard's Terrace (Malmö).

The Instant cartography intervention helped to bridge to phase 2 interventions, where cartography and mapping exercises become a bodily act.

Phase 2

The second phase of research into bodily choreography is reflected in the four encounters herein. These explorations have occurred under another platform of research – the AHA festival. The festival is an annual event created in 2014 as a continuing part of my artistic research in order

to investigate the disciplinary borders between art and science (see catalogue).¹¹ Laying the ground for artistic research, architecture professor and researcher Catharina Dyrssen (2010, p. 231) speaks of an explorative experimentation that encourages these type of crossover teams and events. She states that the importance and inclusion of

‘This diversity of voices would also open up interesting possibilities for communication between scientific and artistic modes of making-thinking, e.g. by critically re-contextualizing scientific data, or creatively expand a logic argument into artistic, associative experimenting’ (Dyrssen 2010, p. 231).

Both voices are necessary when considering the complex challenges surrounding environmental ethics, and encounter 2 and 4 in this series particularly examine the use of scientific concepts (natural farming and Panarchy) as an artistic performativity. The festivals have become a knowledge container for the research into a bodily choreography. Phase 2 of the research holds a series of workshops (Paperscapes, Butoh and Body Weather), performances (Organoleptic Interfaces, Body Weathering and Transit), and other Butoh training interventions (Frauke - How to be invisible and Summer Butoh training).

As the research has progressed from focusing on cartography towards more emphasis on choreography, all approaches have emphasized bodily reflection and relation as main modes of enquiry. The shift from first to second phase also highlighted a change in context from less in-situ contact with garden sites, to more emphasized relation and contact with imagined ‘scapes’ of mimicry and in-depth bodily practices. The aim was not to highlight a ‘best practice’ method or prove whether this method is ‘true’, but rather, it was to reveal that a combination of activities with a choreography creates different forms of reflection needed to examine deeper commitments to the environment.

Disseminating research, papers and publications

There are four papers that I have produced during the thesis, Paper 1 in support of the interventions in phase 1, and papers 2, 3 and 4 to support phase 2. In addition, I submitted two other publications in the first half of the thesis; Essay 1 and Foodprints as pre-study publications because they created the contextual foundation for the PhD. Both illustrated case scenarios for imagining the diversity of food growing and network options, and relayed my previous research into urban agriculture.

Furthermore, the PhD research was exhibited on two occasions in its final stage; at the Moderna Museet in Stockholm as part of the ‘Making Effect Exhibition: Insights and Overview of the Research Projects,’ and again at the AHA festival 2017 as part of their ‘Encountering:

¹¹ The first AHA festival was a way to collect the various artistic initiatives occurring at the Department of Architecture over the preceding years e.g. Poetry Evenings, Art Laboratories, Artistic Research. For a detailed rendition of each festival please also see the film documentaries, which are also included in the list of publications (AHA Festival 2014, AHA Festival 2015, AHA Festival 2016, AHA Festival 2017).

artistic research in architecture'. On both occasions, I took the opportunity to showcase the five films that have been produced alongside the researched encounters. For a more in depth look into the four papers and essay, please refer to Part Four (See Additions).

Research aims

Explorative artistic and pedagogical studies, involving Butoh, Body Weather and Swarming, constitute the research approaches in this thesis as four situations of study. The studies link methodology to corporeal practice in a range of four encounters that address the ecological and poethic aims to urban-making: Body/Curiosity (encounter 1); Fiction/Performance (encounter 2); Atmosphere/Imagination (encounter 3); Metaphor/Swarming (encounter 4) (chapters 3-6). These encounters address the ecological and poethic aims to urban-making within the embodied, the relational and the contextual on three levels – individual, shared and collective levels.

The three entrances into the research aims – the embodied, the relational and the contextual - each offer particular perspectives to address the research process and are developed both on the individual, the shared and the collective level. On an embodied level, the aim is to establish both situated and corporeal knowledge practices into urban-making. These practices open up and enable a knowledge generation from a bodily, visceral, behavioural and ethical perspective and are here specifically orientated towards an investigation of the collective affect and relation with the surroundings, relevant for urban-making.

The second threshold, the relational, addresses the deep understanding of how to consider architectural thinking and urban-making, shifting from an instrumental approach to a more profound level of bodily investigation. Relational spaces are significantly grounded in contextual urban-making. The relational methods presented throughout the thesis are existentially embedded in the space matters by creating a new set of embodied methods allowing urban-making to open up to the profound levels of body, space, time.

The aim is to suggest and support modes to approach relational space matters. Each of the encounters in the research indicate ways to approach relational space through types of applied methodology that seek the relevant theoretical configurations, developed in the 'theoretical neighbourhoods', to create a theoretical cartography that supports the embodied methodologies. The encounters show a palett of possible methods that could be applied in research, practice and education in order to reveal new perspectives to the relational.

The third threshold into the research is through the contextual, expressed both as theoretical landscapes and as situated encounters. The theoretical aim is expressed as a cartography and the embodied methods as a choreography of how to move with the body by setting up the relation of the body/space/time. Each encounter investigation combines a series of embodied interventions with relevant mappings of theory, as theoretical neighbourhoods, to the investigated practice situations that form configurations of action and thought that develop appropriate methodological choreographies. The neighbourhoods of each encounter indicate how the embodied context can

be addressed both theoretically and methodologically as mappings of the relevant theory needed to conduct such knowledge practices. This is a mode of *theoretical-methodological cartography*. In all, this process helps to form a series of eight relevant sets of theoretical-methodological relationscapes for ecological urban-making (see figure 2).

The embodied methodologies reach architecture and urban-making on a basic level of investigation that open up possibilities for a fundamental change in architectural practices, research and education. Therefore, they are no longer only an environmental approach to urban food matters, but they think through matter, time and space with a potential to transform what architecture and urban-making can be about, what it does, and how to understand and approach relational space. These approaches are informed by artistic research practices as they open up for the investigations to be an exploration which cannot be instrumental, but an open gesture and space in which to conduct this kind of relational work.

To sum up, the research responds to the following gaps and indicates a methodological and relational itinerary for the:

- Embodied: Exploring embodied methods and visceral approaches in architecture and urban-making practice particularly to deal with the complexity inherent in environmental approaches to space matters. Responding to a need for understanding how corporeal behaviour in spatial practices links to the ethics of space, natureculture and environment as an opening up gesture.
- Relational: Setting up a mode of relational spatial practice through embodied methods for a deeper understanding in architectural thinking and urban-making, redirecting basic research and foundations in education from an instrumental to a profound level of knowledge generation. The research is a further probing of the relationality in naturecultures and embodied modes of inquiry to include both human and nonhuman matter in environmental approaches (naturecultures).
- Contextual: Setting up a cartography and choreography between theoretical neighbourhoods and embodied practices that are embedded in situated knowledge.

Thus, the research queries are about the relational aspect of urban-making and architectural thinking. An overarching question leading the research is how embodied methodologies could be developed in order to contribute to a relational approach for generating a situated, ecological and poethical reorientation in urban-making? Therefore, the contexts of relevance falls into these three points:

1. Situated – what kind of embodied and situated immersions using the body(ies) could generate relational knowledge practices to lift up the profound knowledge that is embedded in a contextualised practice?

2. Ecological – how can environmental challenges be addressed to reinforce a profound relational approach to architectural thinking, practice, research and education. The ecological query takes care of the expansion from urban gardening into natureculture relations.
3. Poethical – how can a poethical approach be harnessed within an artistic research approach. The poethical takes care of the poetic, political and ethics of urban-making that need further consideration.

It is important to note that the relational approach applies to all three spectrum of the research queries. These contexts of justification are relevant for professionals in urban-making, for pedagogic approaches in education, and have implications for approaches to basic research in the architectural field. Furthermore, the methodologies presented here position artistic research as an integral process for inquiry in architectural academia and practice within the area of environmental approaches.

Research approach

An encounter through interventions

There is a distinction to be made between intervention and encounter within the research. An important part of my research practice is in the staging of interventions which are the artistic practice itself as workshops, performance, writing and choreography. I see intervention as a form of intervening and contacting space. To *intervene* is to enter in-between which is a critical component of working from the feminist corporeal practice. The encounter is the entire process towards a knowledge generating practice; the thinking, making, doing and practicing, as well as the theoretical underpinnings. A collection of interventions creates the encounter, weaved together with the theoretical neighbourhoods as a part in this relationship. An encounter might specify the nature of the intervention, but there is also a possible interesting tension or paradox to highlight; the encounter is unplanned and without purpose (but not without an outcome), and the intervention is deliberate, planned, staged and with a purpose. The unplanned encounter is a specific affect of an artistic research process discussed further onwards in this chapter. The focus of each encounter has been on relationality and agency as they connect to the intended ecological poethics. Each encounter allows an exploration of diverse embodied methods to create relations to urban space. A driving inquiry is how the staged encounters serve as embodied methods that actively involve experiences, immersions and relations, and so doing, contribute to engaging curiosity, imagination, fictions and collectivity. Methods include: doing and acting (encounter 1), performing, becoming and thinking in other fictions (encounter 2), imagining and cultivating corporeal atmospheres that explore time and space (encounter 3), and mimicking and moving together and with otherness as a collective agency and understanding of assemblages (encounter

4). The intent is to create an embodied relationality that instigates a new kind of responsibility to nature. This is done by embracing a series of embodied methods that stem from urban gardening as a catalyst, but are different in that they are focused on the reflexive nature of such corporeal methodologies. The different encounters address different ways of approaching embodiment, using choreography, imagination, metaphor and collective behaviour as mechanisms of complex relationality. As relations themselves are key constituents in this thesis, perhaps the best place to begin is with the word relation.

Heterogeneous relations

There are certain relations that need to be explored in order to reinforce the link between the environmental agenda and architectural thinking. In developing these relations, I envisage encounters that open up for and generate certain orientations, affects and enchantments, specifically in relation to nature. I speak of nature in relation to the human species, but one which all the while provides agency for other species and non-human agents, recognizing them as essential actants. Bennett explains that a vibrant materiality is a pluriverse of relations, she writes,

‘I believe that this pluriverse is traversed by heterogeneities that are continually doing things. I believe it is wrong to deny vitality to nonhuman bodies, forces, and forms, and that a careful course of anthropomorphization can help reveal that vitality, even though it resists full translation and exceeds my comprehensive grasp. I believe that encounters with lively matter can chasten my fantasies of human mastery, highlight the common materiality of all that is, expose a wider distribution of agency, and reshape the self and its interests’ (Bennett 2010, p. 122).

As I consider myself to be an enthusiastic vibrant materialist, along with Bennett I think that the realm of ethical behaviour is also ‘human participation in a shared vital materiality.’ She writes that ‘We are vital materiality and we are surrounded by it, though we do not always see it that way. The ethical task at hand here is to cultivate the ability to discern non-human vitality, to become perceptually open to it’ (Bennett 2010, p. 14). This materiality has effect through the building of relations. The practice of this kind of ethical perception can be a poetical undertaking and I approach it through the Butoh, Body Weather and swarming practices. In each practice, I erase my social self and distance myself through the exploration from the moral discipline of urban gardening. I wanted to focus on the corporeality itself, its inner-workings and the underbelly of an act of contact and relation making. This gesture can also be referred to as a bodily materialism (Bennett 2004, p. 348), locating the body inside a natureculture (Haraway 2003) setting, or in a bioculture as it is sometimes referred to in Bennett’s (2004) writing. Within this materialism is a force that plays itself out on micro and macro levels that sits under the radar, and new modes of enquiry are necessary to bring these workings to the surface. This trained sensitivity and perception to the vibrant materiality in things, I argue, encourages a stronger ecological and ethical sense. But the question still remains: which nature, whose nature, and how nature? And with which body and how?

Inspired by the writing of corporeal feminist Elizabeth Grosz, the main line of investigation is about approaching architecture (urbanism) from the outside, from in-between, from otherness. She stimulates me to think of and in architecture differently without assuming a fixed role between a body and the space. How to think about architecture beyond binaries and hegemonies that can emerge through economics, politics, gender and/or ecology? Here the aim is about how to think in these ways while moving, doing, and making. Grosz's prime question is 'about how to think, to think while making or rather while doing: to think as doing?' (Grosz 2001, p. 59). 'How to disturb architecture? [...] How to infect architecture with its outside? In other words, how to force an encounter, to effect a transformation or becoming, in which the series that is architecture can be intercut with an element (or several) from its outside?' (Grosz 2001, p. 64). This outside, the in-between, is the unseen. It is the unthought, the lines of flight, and that which resists and that which is an 'other.' The aim with the four encounters I developed in the research is to uncover this invisible layer. In addition, from this outside space architecture can be seen more as an assemblage from which emerges a mode of enquiry into environmental discourse on how to approach ecological urban thinking – a nature – that is not bound but is contingent to the multiplicity of the context at hand and that takes a viewpoint from the in-between into a becoming.

'Becoming is what enables a trait, a line, an orientation, an event to be released from the system, series, organism, or object that may have the effect of transforming the whole, making it no longer function singularly: it is an encounter between bodies that releases something from each and, in the process, releases or makes real a virtuality, a series of enabling and transforming possibilities. Becoming-animal only makes sense insofar as both the subject and the animal are transformed in the encounter' (Grosz 2001, p. 70).

The body is a much-needed actant as the urban environmental agenda has run out of visceral steam, especially when we start to propose the Anthropocene as a catalyst and smart green cities as answers. The relation to and with nature has become muddled. Nature is not an innocent bystander in a binary relation with human species. For we too are nature, and, we are not the only nature. There are assemblages of nonhumans, matter and materialities that need to be carefully include. (Bennett 2010, Haraway 2016)¹²

The red thread in this thesis is the corporeal. The body is used for constructing several affects and relation-making encounters in order to see how an ecological responsibility might emerge. This corporeal poetics is used:

- As a method for carrying out a visceral approach to urban space.

¹² I am aware that when I use the word body, I touch upon complex implications. I would therefore like to clarify that my use of the word *body* is in terms of a wider body, an atmospheric body, not a body that is separated by mind and body implications. Situated senses help to think with the wider body and themselves become what the body can know. I further expand on the notion of the body in chapter 3. For a perspective on the wider body from a deep ecology approach, Stephan Harding has created a formative formulation in his short film description on 'Encountering Another Being' which views the encounter with nature as surpassing the intellect and harnessing the poetics of relation. (Empathy Media 2017)

- As a relational study of the body to space / body to naturecultures / body to body(ies).
- As a way to meet nature through initially growing food and bodily contact.
- As a mode of encounter with ‘otherness’ in urban space; particularly spaces that make us ecologically aware and behave accordingly.
- As a way to meet other body(ies) – the naturecultures: human and nonhuman – and how to assemble and swarm together.
- As a way of worlding, creating fictions to become with.

Each corporeal encounter creates new agencies for urban-making and conceptualizing, as well as assembling a new relation with naturecultures. In moments of evoking new nature fictions with the help of feminist writer Marilyn Strathern whose mantra of “it matters what ideas we use to think other ideas”, I call on her to keep the boat steady while we soon voyage through the island of encounters:

It matters what thoughts think thoughts.
 It matters what knowledges know knowledges.
 It matters what relations relate relations.
 It matters what worlds world worlds.
 It matters what stories tell stories.

(Strathern cited in Haraway 2016b, p. 38-39)

Research framing

‘Wherever you go, there you are’ (Oedipal Logic – Morton 2016, p. 9).

This body, my body, and the body of other matter, as it relates to life and its dependency on nature’s life – food – within the urban everyday is at the epicentre. The research process is about situating and staging these body(ies) in a series of encounters in an explorative manner, both on the level of individual contact, shared and the collective relation with space. According to Dyrssen (2010, p. 225),

‘Architectural thinking always involves the relationship body-space and often uses an active decoding of its surroundings that integrate all our senses and anchor them in bodily experience. In heterogeneity, the body is drawn into practice as an actively constructing, discursive agent. It emphasizes the ‘multiplicity of subjects’ and the ‘relative other’ challenging neutral relationships between body, perception, representation and space, instead raising questions such as: whose body, whose space, which sight, how, when, why?’

This probing has been done via way of all the interventions. What is important is to challenge the binaries in the concepts that come up using the methodology and theoretical construction;

through the body, through the metaphors, through the action, through the interventions, through choice of concepts – which all return to this banal way of understanding space – through the body. The research develops a distinctive path for a shift in behaviour that needs to occur, and it privileges the body and perceptions rather than a smart green planet; movement, listening, smell, taste and the 33 doors of perception are privileged over rationalized thinking as ‘other ways of knowing’ that generate different types of lingering memory. Architecture needs alternative methods and discourses beyond smart green planet. As a reminder, the research aims to elaborate upon deeper and more meaningful strategies between the body, urban space and environmental behaviour. And to reflect on the implications of artistic research with its contribution to architectural thinking and making.

An embodied methodology

The purpose of the research is to explore and develop alternative embodied methodologies for how the body can be involved in the ecological discourse of urban-making. I believe this is important because it creates new agencies, alternate fictions and reformulates the architectural agenda to develop methodologies from the perspective of artistic research in ecological discourses. One approach to developing the ‘human’ body as a mode of embodied methodology has been to view it as a form of materiality. Jane Bennett (2004, p. 348) refers to this as ‘body materialism’, which comes from a long line of political-theoretical work. She claims that,

‘One hallmark of this “body materialism” (as I will call it) is its insistence upon locating the body inside a culture or bio-culture. It has examined the micro- and macro-political forces through which the (human) body is, among other things, gendered, sexed, pacified, and excited. Body materialism, in other words, reveals how cultural practices shape what is experienced as natural or real’ (Bennett 2004, p. 348).

With body materialism at the core of the research, the aim is to turn the search light on nature. The stratum of the PhD helps to understand the transitions in the research; nature to food, food to foodscape, foodscape to urban space. The ‘food’ actant can be followed through from eating, landing in the body, and then released metabolically back to nature. Hence, body is nature in the realm of urban space. These layers are relational and unfold in the following manner:

- The outer layer is covered by ecological concern and ethos. The intent and motivation for the research is within the realm of ecological care in the urban-making field.
- The next layer is this eco-intent which is concentrated on edible matters rendered through many years of working in architecture with this resource of growing food. How food arrives in the city, what we eat, how we can grow food together, and how food becomes both an artefact for making a collective space with other urban inhabitants are important research trajectories. They explore ways in which to create vibrant and meaningful everyday urban life.

- Peeling further, I find that the act of eating food is potentially the closest contact we make with nature on an everyday basis, it is a part of our connect to nature that puts us in an intricate relation to every other living entities; both human or nonhuman.
- The following layer is one where food enters and exits us through a body – our body. This link is so basic that it is almost banal to define that our body is also our nature.
- Therefore at the core of the layers, we land in the heart of the research – the body.

Reflecting on these peeled away layers, reveals the aim of using the body as a direct link to environmental poethic-making to formulate another way the embodied in urban space. The embodied encounters uncover modes on how to view space, and space views us, to reach a transformation in behaviour towards the environment. The interventions are a collection of experiences, and a reformulation of urban matter into choreographed and cartographed happenings. The aim is to use diverse modes to create encounters as fleeting places of exchange and relation-making, which shift interfaces between space, body and time.

Modes of artistic research

The artistic research in the thesis explores varying forms of encounters and relations. I create an explorative programme of interventions by constructing fictions and using choreography through performative and modelling practices. All encounters use dynamic metaphors working within critical feminist practice.

I believe there is a lack of such methods contributing to the field of urban-making, especially in environmental approaches. Methods that include the body(ies) as key actants. In their 2015 yearbook, the Swedish Research Council's (Vetenskapsrådet) Committee for Artistic Research characterizes the experimental condition's potential and pertinent role of artistic research,

‘Artistic research often takes as its starting point the scope for the art to shed light on value-related and communicative questions concerning creation of meaning and quality. The research methods tend to be action-oriented, performative and interactive with artefacts and the surroundings. This is some-times described as “through the making”, where the researcher is an active participant in the investigative process’ (on behalf of Vetenskapsrådet, Dyrssen 2015, p. 23-24).

Through such investigative processes, a relation is created, rooted and embedded, in which the process itself is important in creating reinvigorated relations, in this case, to naturecultures. In postmodern performance notions of theatrical representation, Elin Diamond (1996, p. 1) describes this process as ‘different ways of knowing and doing that are constitutively heterogeneous, contingent, and risky.’ The risk factor is a part of the doubt, unknowing and discomfort associated with artistic research. The difference between ‘knowing of’ and ‘knowing how’ rests in mobilizing the creativity of the body into playful encounters which bring this situated ‘know-how’ to the surface.

The diverse array of artistic research approaches explore an embodied methodology and materialism – from tactility to senses, from immersion to creative engagement, from imagining atmospheres to moving collectively, and also through performance and performativity. Dyrssen (2010, p. 224) suggests that an art-based research approach to architecture brings in a spatial conception as ‘constantly changing, relational, diverse and heterogeneous but still bodily and multisensorially experienced.’ Spatial-making in this manner belongs to the realm of critical feminist spatial practice which is explored from a sense of movement, physically and theoretically. Artistic Research is brought into the research process here because it seems particularly apt to investigate the four topics essential in light of the research aims. The approaches are an exploration for relation. They are an exploration of time beyond the seasonal rational. They are an exploration of the senses through performativity, contact and movement. And, they are an exploration of being curious, of imagination and of fictional becomings by storying, cultivating atmospheres and metaphors.

I want to mention the crossover between architecture and art in this context and my role. I prudently approach the artistic field, not being a trained artist myself, because I know that I open my disciplinary background up for criticism. However, my intent is not to begin a discussion into whether architecture is art. Dyrssen (2010, p. 224) reveals that artistic-thinking in architecture does not have to be pure art, she states that

‘architectural thinking-making-composing is largely a complex, artistic activity, a mode of finding hidden connections between seemingly disparate elements to construct new coherencies. It investigates situations through spatial understanding in a wide sense, design actions, tentative proposals and explorative experiments.’

Likewise, when considering this in terms of urban-making and complex relationality, Isabelle Stengers (Blok and Farías 2016b, p. 14) uses the concept to think and enable ‘cosmopolitical’ situations. These are ones in which ‘the unknown, that which has been excluded from our common world, may suddenly become visible, problematic, generative of new relationships and forms of knowing and caring.’¹³ The four encounters have maintained a discovery mode of emerging throughout the practice, though prior to these, the beginning stages of the research did embark on more recognizable forms of architectural approaches (see catalogue). To clarify, my research assumes that practices in architecture can be artistic and that urban-making benefits from the artistic realm because it involves space and people in other ways to engage their curiosity. This is a crucial point because without imagination, new narratives and methods cannot develop. And with new narratives, new meanings arise or rather meaningful ways to relate to the world. The same can be said for certain practices in the sciences, and certainly that

13 To briefly introduce the term cosmopolitical into the thinking; ‘cosmopolitics implies a politics of the cosmos, a politics of exploring and provisionally settling what does and does not belong to our common (urbanized) worlds [...] the most radical challenge of cosmopolitics: to conceive of the cosmos, this shifting and provisional articulation of human and non-human cohabitation, as the always problematic, unknown, uncertain object around which all of politics, urban and otherwise, turn’ (Blok and Farías 2016b, p. 7-8).

many artists are bordering over into the realm of architecture. It should be mentioned that the separation between art and science practice did not occur until the 19th century. However, in the instance of blurring borders and interfaces between diverse fields, interesting potential is sure to happen in this in-between space (Grosz 2001). This belief of engaging in nebulous borders between art and science turned into the yearly AHA festival which I was privy to initiating and organising with colleagues since 2014.

When crossing borders, a more recognizable term needs mentioning – transdisciplinarity – a thorny term as it has various interpretations of disciplinarity cross-overs depending on which field you come from. Doucet and Janssens' (2011) definition and approach is best suited to my research as they clarify transdisciplinarity in terms of the knowledge it produces in architectural thinking. They outline that this knowledge generation is formed by three major features, 'the integration of discipline and profession (theory and practice) in knowledge production, the ethical dimension, and the importance of experimental, designerly modes of inquiry' (Doucet and Janssens 2011, p. 2). They explain further by highlighting that 'transdisciplinary knowledge production entails a fusion of academic and non-academic knowledge, theory and practice, discipline and profession,' and cite Julie Thompson Klein (2001, p. 7) who adds that, 'Transdisciplinarity is a new form of learning and problem-solving involving cooperation among different parts of society and academia in order to meet complex challenges of society' (2011, p. 4). I suggest that the artistic research in the thesis is also a transdisciplinary process and both merge. I have collaborated in several initial encounters with diverse artists using dance and performance. But at a certain stage in the research it became crucial that I too enact the artistic mediums myself, and thus I began to train Butoh and Body Weather.

Congruent to the artistic research is critical feminist spatial practice. The encounters rest in the realm of critical spatial practices to find new modes of inquiry in order to reformulate architectural thinking, especially when it comes to environmental concerns and matters of and *for* care. Inspired by Jane Rendell's (2006) early account and overlap between art and architecture, she affirms that 'to develop as a critical practice architecture must look to art, and move outside the traditional boundaries of its field and into a place between disciplines [...] art can offer architecture a chance for critical reflection and action [...] art is better positioned to initiate critical spatial practices that can inform the activity of architectural design and the occupation of buildings' (Rendell 2006, p. 191). This rings in line with Doina Petrescu's call for artistic practice in addressing urban challenges through fluid forms. She supports that an art-related spatial practice

'can provide tools and critical methods to approach what goes beyond strict management, to reveal the political nature of space [...] Within these practices, 'art remains free to deploy all its symbolic force in lending enhanced visibility and legibility to social processes of all kinds. Art perceived as a 'latent activity' has another function, or in Wright's terms, a 'use value': 'it crops up in the everyday not to aestheticise it, but to inform it' (Petrescu 2007, p. 3).

The interventions in this research revalidate everyday urban life activities such as growing food in urban spaces, and via the artistic forms of Butoh, Body Weather and swarm-renactment, consider urban-making in terms of the body as a mode, aptitude and process. In this intersection between art and architecture, a suture of potential and spatial relations can be explored and reconfigured. The editors in a recently published compendium on feminist spatial practice define the interfaces between critical and feminist spatial practices. They say,

‘While critical spatial theory may generally examine how a particular social-spatial order is constructed, and critical spatial practice may work to destabilize that order, feminist spatial practice questions and opposes, but it also projects, activates, and enacts alternative norms or ideals – for example as “embodied utopias” ’ (Schalk et al. 2017, P15).

Practices that fall into this category include action research and emerging methods that include critical cartographies of mapping otherwise, performative acting out, mimicking, and critical fictions. Furthermore, Dyrssen (2015, p. 25) points out how artistic research is also a critical mode for reorientating, she writes

‘In today’s knowledge society, artistic endeavours and forms of communication play an active and necessary role in critically examining contemporary phenomena through practice-related perspectives and capacity for re-interpretation. Artistic research and artistic practice contribute to innovative forms of expression, cultural output, critical examination of and new thinking on issues such as democracy, the development of industries and services, globalization, and not least issues touching on values, quality, learning, and processes of knowledge and innovation.’

Furthermore, Jane Rendell proposes five qualities attributed to feminist modes of critical spatial practice; collectivity, interiority, alterity, materiality, performativity (Rendell 2011, p. 24). Together these qualities allow for the fluid and open-ended development of knowledge practices that seek to transform rather than define present throughout each encounter. Especially the performativity, allows for the study of relations and of situated contact through a form of activity – either as corporeal exercises as in the Butoh and Body Weather (encounters 1 and 3), performances (encounters 2, 3 and 4) or making-workshops (encounter 2).

Another viable mode of thinking in feminist spatial practice is through situated knowledges which strengthens the motive around poethical matters through an alternative spatial practice in order to develop the methodologies.

In my research, the assembly of this spatial practice comes from pedagogy in forms of explorative corporeal workshops, experimenting borders between art and science in the form of an annual festival, and committing to an artistic form of writing and film-making to tie the interventions together towards an ethics of care as a knowledge practice.

Each encounter begins with ‘messy’ elements of fictional and poetical texts which aim to immerse the reader into the encounter and open up for critical perspective and imagination. However, it is already at the start of the thesis where the reader is directed to a fictional island of encounters where the journey initiates and with a letter to Samuel Beckett. In addition, the correspondence letters throughout are noticeable reminders that the reader is on a journey, reading letters directed to the ‘deer in the headlights’. In the words of Lykke, ‘A messy text makes space for affect and allows for shifts between academic and poetic genres’ (Lykke 2017, p. 31). Furthermore, these text typologies and transitions are gestures that allow room for breathing, as well as the intermissions which divide the artistic texts and practice from the theoretical neighbourhoods and research methodology. All compositions belong in the realm of artistic research within a feminist critical spatial practice, whether through writing, moving or filming.

Journey itinerary

The thesis contains a journey through seven chapters that has a form and format of unfolding. Chapter 1 has served as setting the scene for the research; its entrances, aims, dynamics and framing. Chapter 2 opens up the discussion on naturecultures framing the ecological challenges and relation to nature in urban-making. Chapters 3 through 6 are the *encounters* which are built up through the embodied practice, methodology and theory – a mode of theoretical – methodological cartography. The chapters explore methodologies for *encountering* through Body/curiosity (chapter 3 – encounter 1), fiction/performance (chapter 4 – encounter 2), imagination/atmosphere (chapter 5 – encounter 3), and mimicry/swarming (chapter 6 – encounter 4) and set them into dialogue with theory through the visited neighbourhoods.

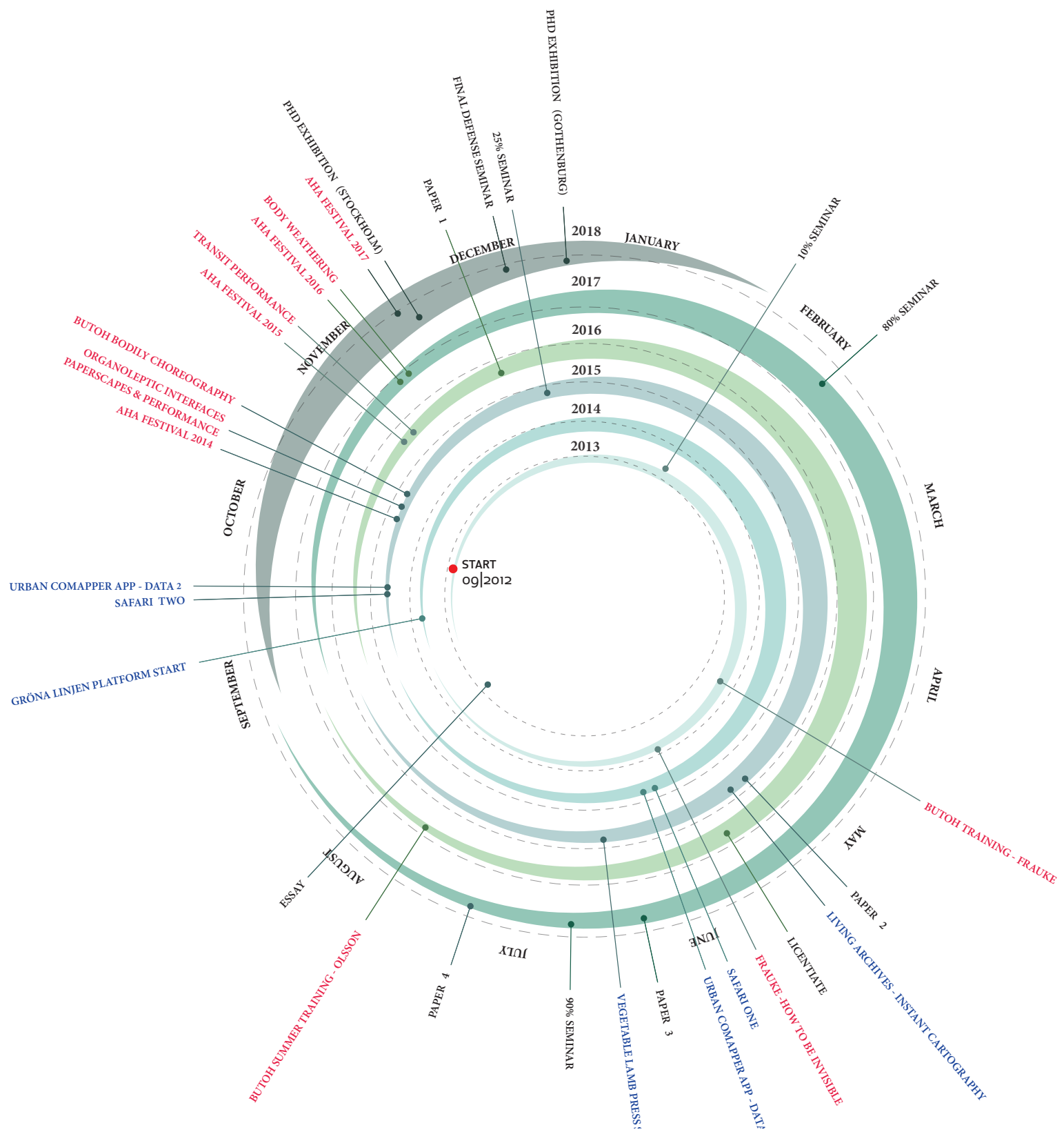
As the research into each encounter developed further, the shift in logic went from simple sensorial investigations into the individual body and space (chapters 3 and 4), to gradually merging the body with the space so that it became an atmosphere instead of just a singular sensing body (chapter 5). From this reflective, outward and wider body, it was necessary to bring the research into a collective body construct to see what occurs when the body becomes many bodies and blurring the boundaries between human and nonhuman properties – naturecultures (chapter 6). The concluding discussion is in chapter 7, the aim is not to produce normative conclusions nor solutions, but rather to conduct an explorative mode that allows for opening up to a choreography between theory and discourse and to hint at what relational space can imply in urban-making and the potential of an embodied methodology in this.

Along with the journeyed encounters, all strategies endeavour to provide forms for relation-building. I speculate that certain relationships need to be investigated in order to change the environmental agenda in architectural thinking, and to address the lack of response-ability both on individual and collective levels. The discourse is complex, and a new carrier bag of language and stories need to be reiterated (Le Guin 1996). Along the way what needs to be reformulated

is how we orientate our body as a potential knowledge practicing entity (chapter 3), how we perceive world structures and the relations to the world through our experiences and encounters in order to harness a poethical agency (chapter 4), how we value imagination as a way to set an atmosphere for exploring body, time and space (chapter 5), and how the exploration of many bodies in an assemblage and swarming can bring about a poethics of relation (chapter 6).

Therefore, the thesis objective is to construct an ontology and methodology for urban-making and architectural thinking-doing grounded in more profound knowledge for the relation between the body(ies) and naturecultures. In its assemblage mode of constructing, the research aims to eventually reconstruct, remake, and rethink knowledge generation on a theoretical and practicing level for contribution towards research processes, practice and pedagogy in architecture and urban-making. The thesis is accompanied by five video essays which are used at first to document the interventions in each encounter, and after as a form of modelling in chapter 7, to make reflections and discussion.

The thesis envisages new forms and modes for understanding and exploring urban life included in the urban-making process. However, the first step is to critically conceptualize nature within a doctrine for care (chapter 2). A question driving the ecology of the thesis is how to represent nature as having an agency, which is laid out in the next chapter, and to situate what nature is in the context of this research, beyond the discussion of the Anthropocene to explore ways for deeper commitments and ethics towards naturecultures.



Key
 PhD events (papers, seminars, exhibitions)
 Phase 2
 Phase 1

Figure 1 - PhD Time-line Graphic

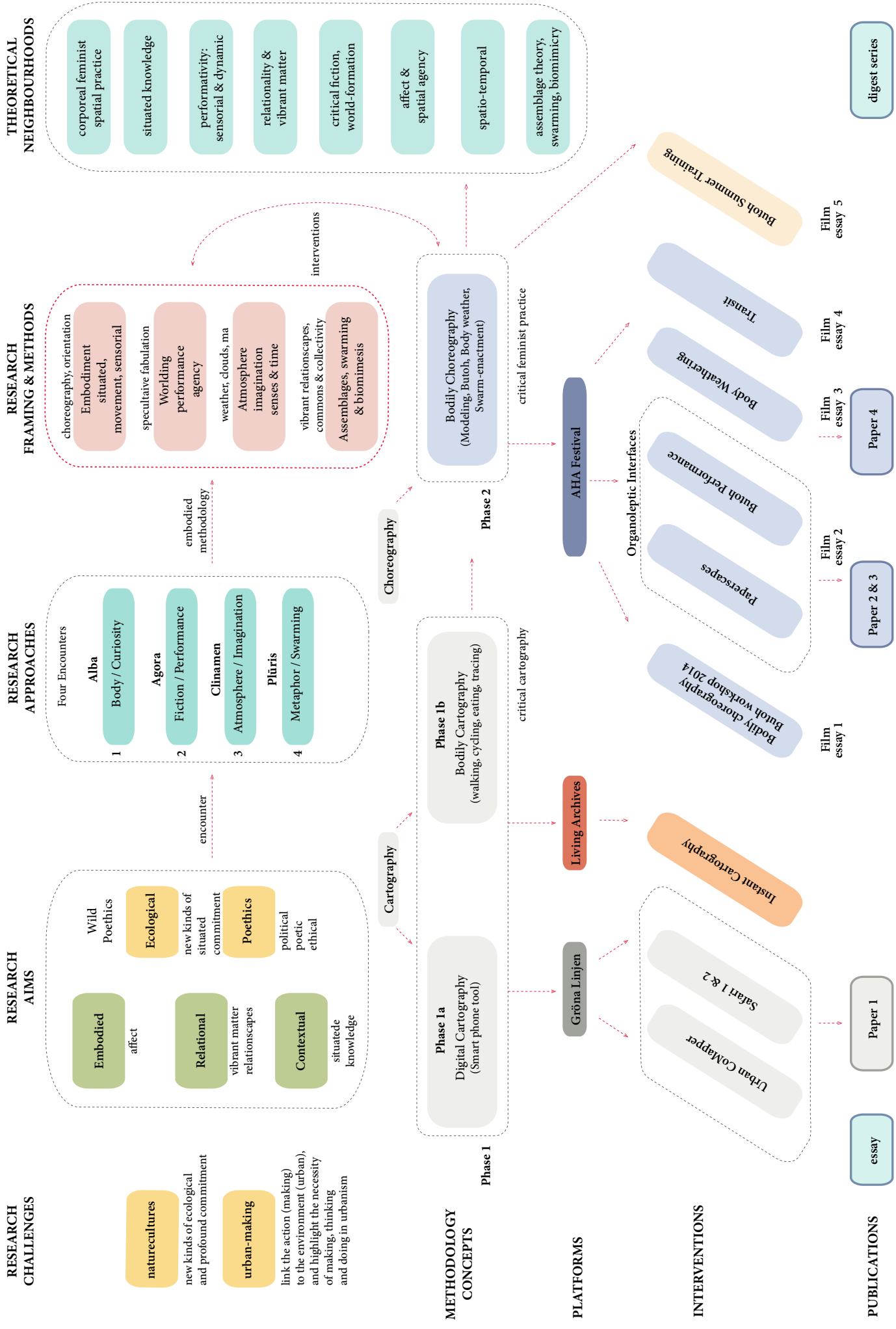


Figure 2 - PhD components diagram

chapter two

nature is not an innocent concept

I affirm the centrality of nature to any understanding of culture and architecture, I also thus affirm the centrality of bodies – human and nonhuman, living and nonorganic – to formulating and refiguring an understanding of the inbetween separating and linking architecture and culture [...] Architecture constitutes a raw interface between/as the cultural and the natural: its task, among other things, is the negotiation between a nature that poses itself as resistance and a culture that represents itself as limit.

(Grosz 2001, p. 100-101).

Unveiling a wild poethics

There is a word I am avoiding in this thesis – the *S word* – and as a result it has taken me to embark on other ways of understanding my environmental tendencies. I land in the ‘*wild*’ and in the ‘*ethical*’ which form the title of the PhD. I alight back to nature, in care and in a certain type of morality. Ecologist Yrjö Haila states that ‘We view “nature” through metaphors because nothing else is possible’ (Haila 1997, p. 130). He puts forward a valid condition, but in the ambiguity and vague use of the term there is a need to understand the relation between humans/nonhumans and nature especially within the urban-making sphere.¹ These tensions in diverse meanings can be sourced to help us develop new meanings for *nature*, the *wild*, *environment*, and for *ecology* that reflect the complexity and situatedness of the way in which these words are used – usually interchangeably. It forms a primary outset in this thesis for more insightful and concrete explorations into how such relations can help to rethink and redevelop architectural knowledge and urban-making.

The thesis title contains the word ‘*wild*’ because of two simultaneous meanings which reverberate throughout the research springing from the ‘wild’ and the ‘wilderness’:

- 1. ‘The word ‘*wild*’ is derived from early northern European words for “self-willed”, “uncontrollable” (Haila 1997, p. 130)
- 2. ‘ “Wilderness” has become a widely used term in environmentalist discussion as a symbol for caring about nature’ (Haila 1997, p. 130).

Although, ‘the notion of ‘wilderness’ cannot be given any accurate empirical meaning.

¹ Defining *Nature*: According to Raymond Williams in his study on the Keywords in society, the word Nature has ‘three areas of meaning: (i) the essential quality and character of something; (ii) the inherent force which directs either the world or human beings or both; (iii) the material world itself, taken as including or not including human beings. Yet it is evident that within (ii) and (iii), though the area of reference is broadly clear, precise meanings are variable and at times even opposed (Williams 1976, p. 184). There is a historical tension in the word *Nature*; it has been viewed as a material of the world, as a ‘countryside’ belonging to places that have been unspoiled. Nature has been alluded to that which is not human-made. Nature is a Goddess, a mother, a minister and even a monarch. And then comes lawful nature – nature as a selective breeder through natural selection. Williams further defines nature in the realm of a quality or a process (Williams 1976).

Wilderness areas ought to be 'natural', but any specific referent of 'naturalness' tends to evaporate whenever it is scrutinised closely.' Therefore, 'wilderness' has had many metaphors through past century's, from European romanticised notions of connectedness to 'wild nature', to North American empty frontier landscapes, and an 'otherness' to human dwellings (Haila 1997, p. 135).

This is a simplification of the terms, but both give justice to the dynamics of the research. One which leans on artist practice which in essence happens through open processes of discovery and exploration and can therefore fall under the uncontrollable wild genre (1).² Another wild (2) in the research is directed towards nature in urban contexts that are gardening plots or areas where green has been brought in. The challenges surrounding ecological behaviour explicates wild in both ways, as *nature* and as *care* towards it via means of practice. Both *wild* trajectories are meant to explore the relation inherent between humans/nonhumans and nature. The deconstruction of the meanings behind such critical words as '*wild*' or '*nature*' reveals their complexity, and therefore, I am unable to simply surface over what it means to have an ecological design approach in my practice. As Rosi Braidotti affirms (1994, p. 109), 'We simply need new forms of literacy in order to decode today's world [...] Theory is corporeal, bodily, literal, figurative, not metaphorical. One cannot know properly, or even begin to understand, that towards which one has no affinity. Intelligence is sympathy.' To further complicate the matter, another interchangeable word in the urban and architecture field – *environment* – is as slippery. I turn to Raymond William's keyword definition, 'Environment has become a central term in contemporary controversy regarding the relationship between humankind and its surroundings, especially regarding how the two interact' (Keywords Project n.d.). Environment gets used interchangeably, either as the natural world environment, or the immediate circumstance of individuals. I also find myself not always distinguishing between the two uses. However, I do find that the double meaning in environment supports the relationality of the embodied practice I am suggesting, and therefore, the correct meaning emerges through the practice itself.

2 By using the word *uncontrollable* in terms of artistic research does not mean it to be associated with imprecision and not being held accountable. My use of the term *wild* in terms of artistic research, has the intention of the research remaining open and not close-ended and I do not wish to set up a binary relation to distinguish scientific from artistic research here either. The 'wild' in the thesis research process relates to wild thinking in line with embodied work around the body and the senses. Conventions earlier have been to make this distinction, but I refer to Nel Janssens whose reading of Lemaire and Lévi-Strauss into the wild thinking appears both in natural thinking and science and brings in a clear description of the concept of 'wild thinking'. She writes, 'In this respect Lemaire's notions on the existence of two levels of thought are interesting. Lemaire states that the world can be known by two different levels of thought: the so-called 'wild thinking' and the 'domesticated, scientific thinking'. The former is more or less adapted to the level of perception and imagination; the latter is more distant. So there are two ways of 'knowing' or studying, one that remains very close to the sensory intuition and another that distances itself from it [...] The concrete logic of 'wild thinking' is a way of thinking in which senses and intellect are closely related. Lévi-Strauss denies that 'wild thinking' is like an old and passed phase in human thinking: it still is like the substrate of our thinking. Moreover, this way of thinking is still present in art. Works of art are not only fulfilling for the senses but also for the intellect because they accentuate and reveal structures in reality that are not immediately obvious. Thus art guides us through the surrounding world in a sensory as well as a cognitive respect, because in art perception and cognition are closely related' (Lemaire cited in Janssens 2012, p. 169-170).

Related to this line of thought comes the word *ethics*, which plays an important role in the research and also a component of the title. Ethics plays out on both an individual and collective field in terms of ecological behaviour. On one end it can be a moral system as manifested by an individual, and on the other hand it becomes an ethical sphere of behaviour. I speak of ethics because I consider that a care for nature is an *ethical* act. However, ethical more so than moral embraces a dynamic choice, it implies engagement and distances itself from religious connotations of morality. Williams defines *ethical* as, 'the benchmark of what is acceptable conduct in a particular sphere: what is or is not moral may be considered an area where individuals may agree to disagree' (Keywords Project n.d.). The term ethics can be heavy because of its ambiguousness, its disciplinary tone and its links to morality. A *poethical* approach instead reflects the poetic practices and approaches in this research.³ A poethical practice can be said to be an encounter that embraces a political, poetic and ethical dimension to embodied situated knowledges that challenge normative approaches. Transferring poethics into a situation denotes contact, listening, reflection and being in relation with others, human and nonhuman. According to Sandra Milena Camelo Pinilla (2016, p. 200) in her study of indigenous language practices and colonialism in Colombia, '(Po)ethical practices are relational and enable the rebuilding of filiations and even the creation of new ones.' A poethical approach is one where 'practices, knowledge and affects, filiations and ethics are not segregated from one another, nor are they abstracted from the bodies they inhabit. In this sense, (po)ethical practices are diverse, multi-vocal, material, and corporeal' (ibid, p. 41). They foster a creative, embedded and collective enactment, and emerge in the process of reflective stagings. Therefore, poethical embodiments include bodies entangled with surrounding space and its engrained history, experiences, affects and responses, and usually seek transformation through matters of care – such as caring for the wild.

Ethics and space can be linked. I stand beside Jane Bennett's inspired writing on ethics, especially in terms of vibrant matter. She writes from a place of impersonal affect and moments of sensuous enchantment which very much comes from writing in feminist studies about the body (Grosz, Irigaray). In her view, 'that moments of sensuous enchantment with the everyday world - with nature but also with commodities and other cultural products – might augment the motivational energy needed to move selves from the endorsement of ethical principles to the actual practice of ethical behaviours' (Bennett 2010, p. xi). Bodily practices, eating included, belong in the realm of ethical desire and behaviour and of course the question remains why? Again, this comes back to relationality. Bennett continues that, 'the enhancement to human relational capacities resulting from affective catalysts and more on the catalyst itself as it exists in non-human bodies' (ibid, p. xii). Though she has written on the subject from the viewpoint of corporeality, in her vibrant matter approach she starts to look at the potential of matter and its affect. Both are vital to form an ethical approach to urban-making, and in this thesis, this is the research – the agency of body and space in the logic of an ethical everyday behaviour. In terms

3 The word poethics is borrowed here from writings and practices of de-constructing colonial structures (Pinilla 2016).

of affect, a term that will be unfolded further in chapter 4 in the section on spatial agency, it's interesting to note how such approaches to environmental challenges, wherein the body is an inclusive part of the methods, bring in profound findings.

With the four encounters, there is an effort to build a consistent, plausible and deep environmental thinking and practice in terms of these terminologies – wild poethics. Therefore the interface between bodies (humans/nonhumans) and nature is a slippery space that necessitates further careful and reflective investigation. Elizabeth Grosz paves the way, she asserts that

‘Nature must be understood in the rich and productive openness attributed to it [...] as force, as production, as a revelry in the random and the contingent, as a continuous opening up to the unexpected, as relations of dissonance, resonance, and consonance as much as relations of sub-stance or identity [...] The natural is the domain of bodies, the domain of materiality [...] nature is the resource for all bodies, whether microscopic, middle-sized, or macroscopic. Bodies are the debt that culture owes to nature, the matter, attributes, energies, the forces it must make and make over as its own’ (Grosz 2001, p. 97-99).

Nature and body are entangled in a mutual choreography, and approaching both through a lens of critical practice is important to maintain. The research encounters are aimed to stimulate such assemblies, finding and strengthening relations to nature through profound bodily practice in order to generate a relational ethos. The research into this has been sequential; first through the gardening exercises and the interventions in phase 1, then to finding more critical modes of strengthening the relationality. Once this is established, then there is the potential to transform urban-making through poethic modes of practice.

The idea of nature as pristine and untouchable is a historical view from deep ecology that needs updating, because given the complexity of *urban nature* and a turn towards complex ‘land ethics’ (or rather poethics) is impossible without interaction of these two interfaces - nature and culture.⁴ What if effort was put on viewing this interface and in-between as a space of potential? This a matter of reorientation, discussed in chapter 3. Haila posits an interesting comparison between *nature* and the *wild* based on this entangled border between human and culture. He confirms that human culture is confronted with an ecological crisis, this is unquestionable. Interestingly, based on this he puts forward an if-condition, ‘if the vulnerable nature is actually within the human body and society, then ‘wild’ nature might be there as well’ (Haila 1997, p. 138). Further, he approaches the question of this binary condition as being irrelevant because humans themselves, along with other nonhuman actants, are located at the border and are

4 An *urban nature* is a significant term which denotes precisely a reorientated and updated way of viewing nature in the urban space that takes into consideration balanced aspects of naturecultures - humans and nonhumans. It is that *vital contact* with nature in the urban realm which requires revised behaviour beyond viewing green space as solely as a place for recreation or leisure. For a systems design and thinking mapping approach to an urban nature, see the small handbook 'Principles of Social-Ecological Urbanism - Case Study: Albano Campus, Stockholm' done in collaboration with the Stockholm Resilience Centre (Barthel et al. 2013).

generally generating it. This role is precarious and vulnerable, it should be approached with the up-most care and respect. This in-betweenness is a sort of wildness, ‘The ‘wild’ is present in all human activities [...] But the ‘Wild’ is not automatically present, it must be consciously searched for and invited to the surface [...] As the ‘nature contract’ cannot be made as a single act, it will necessarily consist of heterogeneous elements which, however, serve the same purpose of changing the attitude of modern culture to nature’ (Haila 1997, p. 143). Space and spatiality, the making, thinking and doing in it, is a vital part of this purpose and within in the explorations, which brings me to the paralysis inherent in concepts such as the Anthropocene.

Elsewhere from the Anthropocene

anthropo – combining form. l'ɑnθrəpəʊ |

from Greek *anthrōpos* ‘human being’

1: human; of a human being

2: relating to humankind

cene – combining form.

from Greek *kainos* ‘new’

1: recent, new, or, designating a (specified) epoch

2: denoting a recent geological period

I began this chapter with a critical overview of *nature* – which nature, whose nature, and how nature? For if we cannot situate the aim for ecological livelihoods in the urban context, then we will not find the triggering motive for an *ethos* to live by. In my letter to Mr. Beckett at the beginning of the thesis, Bruno Latour (2014, p. 1) brings up a substantial point about the agency of becoming an ecological species. Latour (ibid, p. 2) affirms that a shift from economics to ecology is necessary. He points out that the ‘darkening’ statistics of a decaying planet are very difficult to grasp, yet alone, how can these calls for ‘saving our planet’ be used to incite action? One such strategy in the recent decade has been to propose a new geological age – the *Anthropocene*.

The term and topic of the Anthropocene has grown immensely in usage and has been a central topic for many conferences, exhibitions and scientific discourse globally. If the task indeed is to get urban inhabitants to behave differently when it comes to climate challenges, then why use such a term as the Anthropocene? Environmental humanist Deborah Rose Bird, affirms the main concerns with using such nomenclature, ‘Time and agency are troubled, relationality is troubled, situated-ness is troubled. We are tangled up in trouble’ (Rose 2013, p. 207). Rightly so, the Anthropocene may be a significant marking, but not one which will incite suitable action. I will explain my thinking further.

To begin with, the terminology once again needs to be contextualized in a way that it is presented to the public.

- *Anthropos* meaning “man,” and always implying “not-animal” (Crist 2013, p. 131).
- *Homo-sapiens* - the Human as species, the *Anthropos* as the human species, Modern Man (Haraway 2016aa, p. 2).
- ‘Enter the Anthropocene – the age of man’ (Kolbert 2011, Crist 2013, p. 129).

- Nature is over (Walsh 2012).

The idea that the Anthropocene becomes a new geological epoch was proposed in 2002 by Nobel prize-winning atmospheric chemist Paul Crutzen. Crutzen with his co-worker Will Steffen believe, '[The Anthropocene] will be another strong reminder to the general public that we are now having undeniable impacts on the environment at the scale of the planet as a whole' (Steffen in Stromberg 2013, cited in Castree 2015, p. 70). Geo-scientists have adopted this term to ensue action from humanity expecting that they will take on an ecological stewardship towards the planet and start behaving responsibly. Likewise, scientists Simon L. Lewis and Mark A. Maslin (2015, p. 178) believe that 'Adopting the Anthropocene may reverse this trend by asserting that humans are not passive observers of Earth's functioning. To a large extent the future of the only place where life is known to exist is being determined by the actions of humans.' Therefore, geo-scientists declare that 'humanity must quickly adopt an ethic of "planetary stewardship" to replace the irresponsible practices taking us into planetary terra incognita' (Castree 2015, p. 70).

As this thesis is aimed to rouse movement, action and gesture, an important question given the Anthropocene mindset is: Will this strategy work within the practice of urban-making? My presumption is no. Several writers back this up and I unfold their underpinnings below to support my assumption. To set the tone, palaeoecologist Valenti Rull exclaims, 'it is not necessary to formally define the Anthropocene as [a geological] epoch to accept that human activities have significantly changed Earth system processes [and forms] during the last [few] centuries' (Castree 2015, p. 69). This is clear enough given the dramatic climate change symptoms we are experiencing in the past decade. What is not clear is *how* to shift behaviour?

In Japanese, *shinra bansho* (森羅万象), refers to 'all things in the universe' or 'all the creation between heaven and earth', in which we human species only occupy a small part (Haraway et. al 2015, p 543). This is important to formulate because the way in which we view nature is the devil in the detail of what we consider to be *nature*. The Anthropocene is human-centred, but there are many nonhuman entities to consider in formulating an ecological ethics.

Donna Haraway makes a strong argument for why the Anthropocene is not the language to use, she reasons that 'by emphasizing the "anthropos"; [we are] 'etymologically ignoring other species' (Haraway et. al. 2015, p. 539). Deborah Rose Bird (2013) also argues against the term dubbing it an 'Anthropocene Noir novel with dark spectacles.' She points out that there is a missing ingredient in the Anthropocene voice, in which 'The 'we' of the Anthropocene includes non-human animals as well as human beings; it includes plants, soils, atmosphere and oceans, and involves dynamic relationships and processes within an extremely dynamic biosphere' (Rose 2013, p. 207).

The core matter of this dark language is that it excludes nonhumans and it asserts a binary attitude between nature and culture also observed within the field of architecture. It should also be noted that the word *anthropos* is egocentrically human-centred, and at times, man-centred. Where is the *feminine* in this? Similarly, environmentalist Eileen Crist opposes this anthropogenic

movement despite the good intentions it intends to hold. She states ‘this holds the non-human world at a distance, objectifies it and denies the sort of visceral attachments needed to really care for, and see ourselves as an inextricable part of, the living Earth’ (Crist, cited in Castree 2015, p. 71). For me this is the most significant criticism of the Anthropocene, this lethargic *inaction* caused precisely by the *absence* of a bodily approach. The lack of this corporeal, visceral, fleshy, two-legged, four-legged, eight-legged, flying, crawling, dynamic bodies – even when the bodies are at rest or have no legs at all.

The cash nexus

Environmental historians Andreas Malm and Alf Hornborg maintain that the ‘Anthropocene’ blurs over the intricate boundaries of responsibility by holding all of the human population accountable. They argue that,

‘It blatantly overlooks the realities of differentiated vulnerability on all scales of human society: witness Katrina in black and white neighborhoods of New Orleans, or Sandy in Haiti and Manhattan, or sea level rise in Bangladesh and the Netherlands, or practically any other impact, direct or indirect, of climate change. For the foreseeable future - indeed, as long as there are human societies on Earth - there will be lifeboats for the rich and privileged. If climate change represents a form of apocalypse, it is not universal, but uneven and combined: the species is as much an abstraction at the end of the line as at the source’ (cf. Malm, 2013b; Malm and Esmailian, 2012, cited in Malm & Hornborg 2014, p. 66-67).

Furthermore, they reason that growing urban population are inclined to continually make, buy, sell and dispose of purchased commodities into a pattern of ‘accumulation for accumulation’s sake’ (Malm & Hornborg 2014, cited in Castree 2015, p. 71). Rose (2013, p. 210) certainly agrees when she also claims that, ‘we have embarked on something of a death cult: everything that can be consumed will be consumed, everything that gets in the way of consumption will be killed.’ For example, even the terminology we use within urban agriculture environmental discourses is capitalistic, such as food *consumption* and *production*. Similarly, Nel Janssens (2012, p. 53) points out a correlation emerging between capitalism and the Anthropocene as an ‘*urbanocentrism*.’ If the Anthropocene promotes a worldview where man is the centre and ruler of nature, then *urbanocentrism* fosters a perspective in which the urban and urban citizen are dominating which could be seen through increased ‘urbanisation, industrialisation, commercialisation and technologicalisation’ of society. This terminology keeps the dichotomy between urban and nature. Therefore it is important to address *urban nature* as one contextual approach. In light of these increasing challenges, also for urban space, Donna Haraway proposes an alternative term for the Anthropocene – the Capitalocene (Haraway 2016a, p. 5). Her term emerges from her critical feminist writings developed for an era of speculative fabulation (SF) which can help us to

remain critical towards such officious terms.⁵

The Anthropocene in itself has become a capitalistic stunt, spurring on green innovative technology and products as its salvation which is privy to the urbanocentricism inclination. Eileen Crist (2013, p. 134) points out how media has played a role in promoting the Anthropocene solution to readers.

‘The Economist (a newspaper sweet on the Anthropocene long before chemist Paul Crutzen introduced the term) highlights that what we need in the Age of Man is a “smart planet.” As human numbers and wealth continue to swell, people should create “zero-carbon energy systems,” engineer crops, trees, fish, and other life forms, make large-scale desalinization feasible, recycle scrupulously especially metals “vital to industrial life,” tweak the Earth’s thermostat to safe settings, regionally manipulate micro-climates, and so forth, all toward realizing the breathtaking vision of a world of “10 billion reasonably rich people”’ (Crist 2013, p. 134).

This approach indicates a *disembodiment*; a body to nature to technology disconnect. I don’t say that the wave of amazing green technology is not useful, but it is concerning when the majority of the public eye is trained to see it as the solution to *living* over planetary boundaries. My view is that the ‘*living*’ and responsibility belongs also in our bodies and should be retrieved through encounters, and the shift from economy to ecology that Latour indicates, needs to happen. Historian Karin Jaschke also encourages a reconsideration in ecological perspectives and approaches by shifting away from the mainstream push of what she refers the capitalist approach to be a ‘technological innovation and triple-bottom-line compromises.’ This change includes bringing in notions of the corporeal into urban ecological research and developing methodologies for relations based on situatedness, locality and presence (Jaschke 2010, p. 80).

Such capitalistic structures also have an effect on the environmental language used in efforts to find solutions in environmental urbanism. Crist believes we must remain suspicious towards language such as “resources,” “natural capital,” and “ecological services,” and question what it is we are salvaging in desiring to sustain the human enterprise’ (Crist 2013, p. 137). This language, which I have been privy to use myself, becomes rather murky when used to motivate an ecological ethos therefore it must be contextualised within efforts of care. Furthermore, another terminology mentioned already and widely used is “*ecosystem services*”, also coated in capitalism. In an onstage debate at Aarhus University on the Anthropocene, Donna Haraway voices her concern,

‘ “ecosystem services” became an indispensable term for monetarizing all matters. It, too, promised to break down nature and culture, but at the cost of turning everything into circuits of monetarization and accounting. I think Anthropocene is similar [...]

5 SF is an abbreviation used in Haraway’s writing which stands for Speculative Fabulation at its best, but has been known to also morph into: string figures, science fact, science fiction, and speculative feminism (Haraway 2012). Also, it should be said that the term Capitolocene was first proposed by Andreas Malm, a graduate student at Lund at the time.

ecosystem services represent the Earth as if it were an accounting system and thereby became a tool for the capitalization of the planet' (Haraway et al. 2015, p. 538; p. 539).

In this scenario, landscape has also become a commodity and a space of and for consumption. I believe that it should be a space of relation as cities require spaces made for relating to nature in various configurations (or figurations). I become equally uneasy when, in the field of urban agriculture, language also refers to food as a *production* for *consumption*. All this language and approaches needs replacement and more careful consideration in order to move away from their capitalist overtones, and to move back towards nature. French philosopher Félix Guattari proposes three interchangeable lenses – the social, mental and environmental – through which to relate to the world away from this capitalistic demeanour. In order to re-orientate towards nature and assemble an *eco-logic* based on varied perspectives Guattari suggests,

'It seems essential to me that we organize new micro-political and micro-social practices, new solidarities, a new gentleness, while at the same time applying new aesthetic and analytical practices to the formations of the unconscious. If social and political practices are to be set back on their feet, we need to work for humanity, rather than simply for a permanent reequilibration of the capitalist semiotic universe' (Guattari 1989, p. 139).

The relations that are set up in urban space need reformulation. The Anthropocene in its monotone effort erases collaborations, it wipes away *relations*. My first reaction to the term was that it incited hopelessness, however, the damage it carries is greater when viewed from the angle of relation. From the relational perspective, the Anthropocene becomes less a problem of despair, and more an obstacle through its monoculture, arrogance, and capitalist tendencies. Here, nature becomes a purchased and owned commodity. Therefore, the language we use to construct our ecological ethics is in need of rewiring because it nurtures this capitalistic approach. No longer is it wild, and the 'we' is a construct that eliminates minority voices, other nonhuman bodies and vibrant matter. The nomenclature we set to motivate ecological practice is critical, especially, in cases where it can significantly alter the relation between humans, nonhumans and the environment.

Natureculture nodes

Haila confirms that 'It has become unavoidably clear that 'nature', whatever it is, is not and has never been outside of the sphere of human influence, but rather 'nature' is everywhere, predominantly inside us' (Haila 1997, p. 140). Spaces in the city that maintain a nature must in some way evoke a recurring respect to the natural conditions of human existence and everyday living that convey 'the wild, heterogeneous, autonomous, spontaneous, uncontrolled and uncontrollable element in the culture–nature relationship' (Haila 1997, p. 141). A rediscovery and a curiosity of nature are more suitable approaches to environmental challenges. Within natureculture entanglements, Haila (2000, p. 163) writes that the 'relationship is composed of a multitude of interactions between human agents and the world. The contexts of such interactions

range from material necessities of subsistence to cultural, ethical and aesthetic valuations of elements in what is perceived as the "environment". The aim then is not to erase the binary condition or provide 'new' views of nature, it is instead to see that humans and nature are two overlapping realms, entangled, merging and situated in each other. If we manage this then 'Perhaps a nuanced, multistranded and historically imaginative picture of culture, nature and their interactions will emerge as time goes by' (Haila 2000, p. 171).

This points back to the word *relation*. To understand the role of nature, there must be a different way of actively relate to it on an embodied level. When pondering this, the topic food has continually entered my work and research space. Eating is so fundamental and basic that no species escape it. Every species feeds, and this parallel to an 'action' is vital. In damaging the planet, we are eating ourselves. We are damaging everybody's food chain, including our own. This fundamental relation between food and nature must be reconsidered in urban living, and this has brought on the fundamental craft of growing food in the city through urban gardening. Viewing these foodscapes as places of affordances and reformulation is an opportunity to connect to a nature by forming a dynamic relation to the environment literally through the ground. Rose (2013, p. 217) puts forth another grounding word 'country', she suggests,

'Country, as I think is by now well-known, is an extremely inclusive term: the soils, water, underground water, plants, animals, landforms, and all the patterns of organization of life, and all the connectivities of mutuality and exchange, the life and death, the metamorphic flow of beginning creation through the life and lives of country.'

What then does this entail? Rose (2013, p. 219) proposes 're-imagining urban and suburban places as kinds of "country" [...] to go beyond the idea of natural areas within urban spaces to look more thoughtfully at how a city might be reconfigured imaginatively and spatially if the aim of inhabitation was to inhabit country.' To do our part means to use your own body and not wait for smart green technology to do all the work. This suggests a certain dynamism within ecological discourse that is pointing, time and time again, back to the body, simultaneously removing us from the role of spectators, waiters, or mere 'Deer in the headlights.' Personally for me this word 'country' rings too patriotically, but the underlining message is one of inclusiveness, connectivity and relation, exactly what is required. The *natureculture* approach allows me to underline and explore the complexity and heterogeneous relationships between humans, nonhumans and nature as overlapping bodies in the research.

Grounding relations

It is obvious that we too are nature, but then there is a gap where we do not behave as if we are a part of nature. To be ecological, is to understand that we are part of a larger assemblage of relations, that we participate in a collectivity of human and nonhuman bodies and that this entanglement with matter brings with it certain joys or dangers, but in either way it can inspire us to behave differently. There is a large epistemological gap about how we can act and how we

view nature, and this is clear by the dichotomy expressed in nature and culture relations, not the least in the knowledge domain of urban-making. Jacques Rancière refers to this division as a “partition of the sensible”. This ‘partition of the sensible is the cutting-up of the world and of world [...] a partition between what is visible and what is not, of what can be heard from the inaudible’ (Rancière cited in Bennett 2010). In this division, politics can manipulate, arrange and rearrange the landscape in the manner it sees beneficial, and these manoeuvres are not always to benefit the environment. Bennett suggests to create a philosophy for thinking through vibrant matter as an extended genre of nonhuman bodies. Vibrant matter encompasses ‘artefacts, metals, berries, electricity, stem cells, and worms’ (Bennett 2010, p. 123). Therefore, it is not just a thing or a body, it also is the performative act of matter as well, or of “thing power” as Bennett dubs it. She also alludes to it as thing-power materialism which builds up a relation to nature, a kinship that is linked to an ethics of agency. Bennett writes,

‘Thing-power materialism offers a contestable but, I think, auspicious account of how it is that things have the power to move humans [...] It emphasizes the shared material basis, the kinship, of all things, regardless of their status as human, animal, vegetable, or mineral. It does not deny that there are differences between human and non-human, though it strives to describe them without succumbing to the temptation to place humans at the ontological centre’ (Bennett 2004, p. 359).

Such perspectives encourage a more sensible, dynamic and critical engagement with matter, and thus also with nature because it takes both the *acts* and *processes* into consideration. In this reformulation of nature, we must relearn what it is to be human through agencement and relational becomings. Through collaborating with vibrant matters and materialities there is a greater chance in cultivating responsibility.

Thus when using the word *nature*, it must encompass all living bodies – human, nonhuman and vibrant matter in order to articulate the multistranded spectrum of natures in our surroundings and their potential. In understanding which ‘nature’, I feel most at ease in Elisabeth Grosz’s definition of nature as ‘the ground’ discussed by Clark. She asserts,

‘Nature “composed of biological and material, and inorganic systems that sustain life” is constantly supporting, regenerating, transforming itself, but it is also what enables and provokes human culture [...] Grosz has no hesitation about speaking of nature as “the ground”, “condition” or “field” out of which all life, including our social or cultural life emerges’ (Grosz cited in Clark 2011, p. 44).

Nature is not something removed from the city, it is not a secondary point of access. It is the ground and it is grounding. Clark (2011, p. 45) explains this, ‘Dependence on worlds made by others is another way of saying grounding. And grounding suggests a formative and fundamental asymmetry. However turbulent the ground may be, it implies a form of relating in which some actors rely on the achievements of other actors in ways that exceed any measure of mutuality

or co-dependence.’ In extending environmental behaviour into the urban experience, there is a need to find modes of reflective practice to do this. The encounters (chapters 3-6) propose to activate an embodied approach through their direct and alternate experience of nature.⁶

Thus, there is ‘the need to “follow the things themselves”; to track the messy, variegated, and most often unpredictable entanglements that compose real-world situations, rather than resorting to pre-existent categories like ‘nature’ or ‘society’, ‘subjectivity’ or ‘consciousness’ to do the explanatory work’ (Clark 2011, p. 33). Haraway refers to this as *staying with the trouble*, she encourages us to stay enmeshed in a critical and joyful fuss about environmental matters through what she refers to as *collective thinking*, and I add, *collective doing* to the task. The question remains, how can relationality with nature, a relational spatial practice within architectural knowledge generation and urban-making, be extended, motivated and prolonged through embodied methodologies?

Corporeal commitment

Two exemplary modes of thinking that have guided me in constructing my thinking around nature in architecture have been Jane Bennett’s writings on *vibrant matter* and Donna Haraway’s *tentacular natureculture thinking* discussed in the section before on grounding relations. Both have been underpinning my criticism of the Anthropocene, and both have offered an *otherness* in approaching the ecological crisis based on a critical feminist stance. This has been further supported by Elizabeth Grosz’s corporeal feminism writings on the body and the city, and Sarah Ahmed’s conditions for orientation (chapter 3).

Current hands-on approaches in the ecological-solution finding arena are mostly driven by technological endeavours. A smart green planet will save us all – *the Godot of climate change*. I do not say that these initiatives are not good, however, they are far from enough and there is a vital missing component in it all - the component of relation and of behaviour. There is a need ‘to recognize the unsustainable and redefine what sustainability might mean, we need to question our worldview, social structures, material practices and value systems from an ecological perspective’ (Jaschke 2010, p. 79). This implies a change in behaviour, a change in ecological theoretical framing, a change in urban eco-concepts of resilient living, and a recalculation of ecosystem services. This thesis addresses these themes through several approaches, which will be taken up more in chapter 4.

I challenge also the digital hierarchy in some approaches towards urban-making - both as conceptual non-visceral tools and also ones completely disconnected from the sensorial realm of space and its experience. Grosz writes that the information revolution will have large impacts on the ‘inscription of bodies’. The effects will be that, ‘the subject’s body will no longer be

6 Such an approach could be considered biophilic and links to biologist Edward Osborne Wilson’s (1984) term *biophilia* which indicates humans strong attraction to nature. This intense connection is vital in fostering environmental relationships through profound commitments and environmental imaginations.

disjointedly connected to random others and objects through the city's spatiotemporal layout; it will interface with the computer, forming part of an information machine in which the body's limbs and organs will become interchangeable parts' (Grosz 1995, p. 110). This will affect the relationality between bodies and space, and traces of impact are starting to show. Maria Kaika, professor of Urban, Regional and Environmental Planning, has investigated the impact of this digital age on environmental assessment tools, and the modes of measuring resilience to climate change impacts. The entire assessment system is found to be marginalising and unequal. Cities with larger wealth, predominantly those in the global north have access to such tools of assessment can make their cities greener and 'smarter.' Kaika (2017, p. 90-91) writes, 'this green smartness represents an inequality in terms of access – wealthy countries that can afford the technology are able to adopt such technology, whereas many are left out in the cold. Not only this, it is their resources, such as metals, labour etc. – which are used [...] We now have ample evidence that "green" development agendas have been driving new forms of displacement and "environmental/ecological gentrification" in the global South.' Investigations in this thesis pull the non-digitized body back into the realm of ecological urbanism in a form in which bodies produce spatiality and also their own commitment and relationality to nature without the aid of a technology. Kaika supports the resurgence of alternative forms for environmental approaches, she affirms that

'Potentially, the methods forged out of dissensus can lead to instituting alternative means to tackle global socio-environmental inequality. These emerging imaginaries of people and environments being and working in common may offer far more efficient, direct and effective ways of addressing access to housing, healthcare, education, water and clean air in urban settlements than any set of indicators or techno-managerial solutions can offer [...] If we took these practices seriously, if we worked with these living indicators and methods, we could maybe move beyond stale indicator frameworks and immunological practices, and towards an urgency-driven framework of global socio-environmental equality' (ibid, p. 99).

She is irritated but it is appropriate when communities are marginalised in an endeavour of care that should be distributed equally. I want to shift to Isabelle Stengers' thinking as she speaks of these alternative practices as an 'ecology of practices.' She says that this practice 'aims at the construction of new "practical identities" for practices, that is, new possibilities for them to be present, or in other words to connect. It thus does not approach practices as they are [...] but as they may become' (Stengers 2005, p. 186).

Michael S. Carolan (2007) illuminates the debate by proposing another term for ecological stewardship, "*deep commitment*", which belongs to a genre of an ecology of practice. He writes 'while terms like 'sustainability' and 'sustainable consumption' are value laden and not objectively given. I imagine each as presupposing the existence of deep commitments. By deep commitments I am speaking of behaviours that are informed by a sense of care for others and the environment'

(Carolan 2007, p. 1265). His proposed 'commitment' creates a dynamic relation, an action, *with* and *to* nature. This is another version of Bennett's vibrant matter. The vitality of deep commitment is that it generates a more robust assemblage between the individual(s), their behaviour, with other 'matter' and with space, all of which are critical to set up a profound relational practice in urban-making. This deep commitment relies on an emergent state of reflection, motivation, awareness and action in order to develop an *eco-logic* in Guattari's sense. Because environmental commitment is a broad scope, this research is situated in particular questions around urban food and body matters. It concentrates on the spatiality, intent and the visceral potential inherent in foodscapes, explored through embodied encounters. Lakoff and Johnson (1999, p. 6) suggest that 'Because our conceptual systems grow out of our bodies, meaning is grounded in and through our bodies.

Working from Bennett's vibrant matter theory, there is a potential to explore the tactility of spaces in order to formulate these embodiments. Carolan (2007) suggests that tactile space may also reduce this epistemological gap between nature and culture by crafting methodologies for lived and tangible encounters. These encounters generate reformed perceptions, relationalities, commitments and transformations which can reduce the binary assembly. My suggestion is that variations of tactility could be used to explore vibrant 'everyday' agencies in the city. I imagine Carolan supports this method when he suggests that, 'attempts must be made to concomitantly ground such artefacts and relations in the lived, non-representational world of everyday' (Carolan 2007, p. 1274). Given Carolan's perspective from socio-environmental theory about how 'deep commitments' emerge and develop in daily tactile spaces, I think that there is a need to pose this task from an urban-making perspective using situated and embodied immersions via way of the body(ies) to generate relational knowledge practices in the field. Thereby engaging artistic research to open up and expand modes of practice in order to deepen the contextual insights from these embodied approaches and indicate new directions for relational practices in urban-making.

A gesture towards food

As mentioned, an inspiring agent in this thesis are urban gardening spaces. These spaces act as catalysts to make the query into the embodied relations with an urban nature through the act of immersing hand into the soil and hence, using bodily contact for a mode of urban-making. This simple act, motivates a new relational bond between a body with the urban space and with vibrant matter – human and nonhuman. Growing food provides encounters with the ground, to time through seasonality (chapter 5), and with our own body and other bodies. It takes on several roles:

- As a form of intervention with urban space
- As a relation builder between species, nonhumans and humans
- As an extended relationality with nature

The rotten foodscape

In urban gardening, we can view food from diverse motivating perspectives. Food feeds, fends, formulates, gathers. It allows us to spend time together, and alone. Building relations to each other, ourselves (our and other bodies), the culture we live in, and the land we live off. The challenge is to explore how food is a relational materiality in cities and has the capacity to create critical assemblages through spatial means, pro-environmental behavioural, and of course social means. But there is a problem - we have a rotten foodscape. To reformulate and to examine foodscapes on a profound level is also about the bodily act. As Bennett asserts, food is a vibrant matter for an urban paradigm which initiates at the bodily level, capable of instigating certain pro-environmental behaviour associated with the act of growing food.

In *Eating Architecture*, Singley and Horowitz imagine the city as a tabletop with buildings situated as plates in the landscape, an alternating take on an edible architecture, one that stirs the imagination to place architecture in proximity with food and art. They ask 'What can be learned by examining the intersections of the preparation of meals and the production of space? What can be made from the conflation of aesthetic and sensory tastes in architectural design and what is disclosed by their dissociation? Such questions guide this work toward an architecture found in gestures, artefacts, and recipes that belie any distinction between art and life' (Singley & Horowitz 2004, p. 5). Singley and Horowitz assemble a narrative that, 'questions the taste (aesthetics/connoisseurship), the hunger (body/libidinal systems), the ingredients (materiality/tectonics), and the recipe (history/theory) that go into the making of a building, space, or landscape' (Singley and Horowitz (2004, p. 10). For such an assemblage, the body cannot be withdrawn and must be present.

Further, Elisabeth Cromley (1996) writes more intimately about food and about conventions that constitute the relationships between cooking, storing, serving, eating and disposing. She argues that these conventions can operate as a food axis in the social production of space. Though her research investigates the 'domestic' realm of food, it further integrates the metabolic rapport into spaces of dwelling where most decisions about food are made. Likewise, the discussion on architecture's role in the sphere of appetite and food is crucial to contemplate prior to food arriving in the kitchen. Therefore, the query is into the agencies of relations who set up the food, rather than only the foodscapes spaces themselves. In this sense, these spaces also become performative mediums, transforming public space and conduct by blurring boundaries of normative activity in the city.

The rotten foodscape could be viewed as a symptom of the Anthropocene. Numerous challenges are associated with the resource food. Urban population growth and food security are main motives for concern and come with a succeeding list of connecting issues in the form of an environmentally damaging food production (FAO 2011, Sustain 2012). From an architectural perspective, these challenges are too broad and complex to tackle but vital to keep in mind. When you problematize the Anthropocene, and bring the body back into the discourse in terms

of relation and activity, it is inescapable that food has a challenging history. Scientists Simon L. Lewis and Mark A. Maslin (2015, p. 174) recognize farming as a significant cause of climate change, they state that, 'the development of agriculture causes long-lasting anthropogenic environmental impacts as it replaces natural vegetation, and thereby increases species extinction rates, and alters biogeochemical cycles.' In addition, 'The cross-continental movement of dozens of other food species [...] contributed to a swift, ongoing, radical reorganization of life on Earth without geological precedent.' Timothy Morton places settled agriculture as the root of the cause within the anthropogenic discourse suggesting that 'We agricultural humans have reaped what we have sown' (Morton 2012, p. 19). We now live on a gardened smart planet, appraising the planet as an assortment of "resources" (or "natural capital," "ecological services," "working landscapes") (Crist 2013, p. 144). The terminology shifts to capitalist language which, as I have discussed already, is highly problematic.

On a daily basis, we are ignorant of food's highly complex chain of effects in terms of the resources it requires. Transparency is necessary, as well as a scaled-down, contactable and more environmentally-sound approach. One suggested solution has been the local food movement, 'This movement focuses on reconnecting people to their food supply and reinvigorating the values (and relationships) inherent in community through the production, purchase, and consumption of local food' (Delind 2006, p. 123). However, this approach still defines food as an economic enterprise setting up a relation based on food as commodity and as Delind explains, 'Without engagement or some other embedded memory, food easily assumes the role of a "thing" – something quite separate from the living system that produced it and resides within it' (Delind 2006, p. 125). There is a need for an embodied approach that participates more dynamically with foodscapes as a recognisable experience in everyday urban life on a bodily and tactile level.

Delind asserts that linking place to bodily contact includes the act of eating a native diet which has shown to have numerous benefits and she points to research conducted by conservation biologist/nutritionist Nabhan (2004) and Biophysicist and cultural anthropologist Cone and Martin (1997). Delind's view of the space-food-body connect has extended the notion of local to also occur on a metabolic level. This supports Bennett's logic of an extended relation to vibrant matter. The metabolic level is the closest 'space' to us, beckoning a relation to an alternate food placement. Delind (2006, p. 142-143) emphasizes the challenge of using capitalist framework,

'Enabling people to become better consumers or producers of local food, then, is not enough [...] Our challenge, as academics and practitioners, as people engaged in relocalizing the food system, will be to find ways to stretch our experiences and sensibilities to a point where "the local" as food, as farmland, as the culture and ecology of real places starts to "be" us and define us wherever we are. We need to move beyond the creation of lifestyles through consumption and challenge ourselves to create places through acts of physical engagement and cultural identification.'

Stretching experiences and sensibilities suggests setting up modes of encounters that

develop environmental relationscapes and relational practices using analogies, imaginations and metaphors with curiosity and explore new fictions to live by.

Considering time

In order to explore the relation of body space time from an experiential perspective, embodied methods need to be considered. The issue of time arises given the discourse into seasonality, an ingredient which relates to body and space both as a physical and sensorial experience. Scholar Sen Soshitsu XV refers to seasonality as an important interval of time for it 'allows all things the regulation and adjustment they require in their progression to' the next season (Di Mare 1990, p.321). The seasonal interval assumes a spatial sequencing through each season that creates a potential for reflection, awareness and transformation. Architectural theorist Carolyn Steel refers to the quotidian as connecting seasonality to time. She states, 'Living according to the seasons, as we must, links the everyday rhythm of our lives to the universal: a dual meaning captured whenever we speak of 'mundane' existence [...] By paying attention to the mundane, we can regain our sense of place in the world, and gain insight into better ways of living' (Steel 2012, p. 40).

It is in the common everyday that inhabitants can explore relationality as a vibrant matter by connecting it to the experience of time. French sociologist Michel de Certeau (1998, p. 183) further clarifies this point, 'Eating, in fact serves not only to maintain the biological machinery of the body, but to make concrete one of the specific modes of relation between a person and the world, thus forming one of the fundamental landmarks in space time.' Contact with reminders of season can become indicators of food cycles, however there is still a need for more engaged experience beyond the visual queue of time. The spatio-temporal presence of urban agriculture can serve as a catalyst for a renewed relation to nature in cities, it can be imagined as a nature we relate to on a metabolic and physical level. The challenge though is to create an awareness for reformulated food behaviour beyond dietary choices and explore how space can generate a connect to nature through seasonal experiences and sequences of activity that have a more profound resonance. One such approach is through tactility and its association with the sensorial as indicated by Carolan (2007) and expanded in the next and final section on corporeal politics.

The corporeal politics of relations

'For what shoots up into the air and what plunges down into the earth are fundamentally one and the same' (Bailly 2001, p. 29).

The epistemic gap highlighted by Carolan (see previous section in this chapter) is a distance between awareness and the act to do something about it. As already mentioned, collapsing this distance involves establishing a deeper commitment to the environment, and he proposes that such embodied approaches could be seen as the 'corporeal poetics of everyday life.' Carolan

(2007) refers to tactility as one approach but there is little research dedicated to practices of exploring tactility in terms of gardening other than the obvious experience of immersing hands into soil. This research gap into tactility is highlighted by biologist Lucy E. Keniger (et. al 2014 p. 930) who points out to the potentials of interacting with nature. She suggests questions for further research which define the architectural setting within this thesis;

‘What characteristics of natural settings (e.g., biodiversity, level of disturbance, proximity, accessibility) are important for triggering a beneficial interaction? How do these characteristics vary in importance between different cultures, geographic regions and socio-economic groups? These are important directions for future research if we are to make effective, informed decisions regarding the best ways to maximise opportunities for people to interact with nature in a rapidly urbanising world.’

These interactions are supported by the link between place attachment and pro-environmental behaviour. Scannell and Gifford (2010, p. 290) investigated how emotional place attachment and natural environment identity encourages pro-environmental behaviour. They claim that an ‘environmental identity’ is formed, and as a result (ibid, p. 296) they identify that future research is needed to study ways in which place attachment could be inspired and if such interventions would produce an increase in pro-environmental behaviour, and in regard to space, I am curious as to what spatial methodologies and conditions could curate this. Carolyn Steel also emphasizes a necessity for alternative and creative approaches to food issues, she writes that ‘the scale and complexity of the task demands a broadening of the architectural and planning discourse to embrace fields not traditionally considered relevant. New tools are needed, both in order to comprehend the issues at hand, and to make effective use of the creative capacity of spatial imagination’ (Steel 2012, p. 37). An artistic research approach can stage embodied approaches for studying the relation between body, space, time and urban-making, not only to deal with food complexities for example, but also to seed behavioural agency. Nigel Clark (2011, p. xxii) denotes the relationship of the body that resonates to the rest of nature, he expresses that, ‘there is a kind of faith that there already exists a vast reservoir of experience – inscribed in communities, bodies, landscapes, stories, objects – about how to make it across the inconstancies that belong to the earth itself.’ There is a need for creating new methodologies and encounters for intervening with foodscapes and other spaces to explore ways to activate pro-environmental imagination in the public realm. Carolan (2009, p. 2) proposes that ‘approaching understandings of nature from this direction, from the angle of embodiment, reveals important insights that would otherwise fly below our theoretical radar.’

Hence, an embodied approach to an urban nature has meaningful consequences that link also to a mode of ethical behaviour inherent in place attachment and care. The research intent is to intervene in the poetics of corporeality by bringing embodiment, imagination and a certain eco-playfulness into urban-making practice. Carolan writes that if ‘bodies dwell with differing degrees of attachment to the natural world (Carolan 2009, p. 9)’ [then] ‘a change in style (lifestyle) implies the creation of new embodied actions, stories, and ‘being’-in-the-world, from

which will spring forth new intelligibilities toward nature' (Carolan 2009, p. 12). Hence, this new relationality with nature is an embodied environmental politics that can 'bring people back into a sensuous kinship with the natural world – in their travel, play, work and rest – so this world can again be experienced from within the everyday' (Carolan 2009, p. 13). In this mode of urban-making, the sensorial and embodied aspect of practice comes to the fore (see chapters 3 and 5 on the sensorial). Carolan also suggests the use of the body to achieve this, 'if we think with our bodies then we must think about nature with our bodies too [...] It is time to nurture alternative ways to know, recognize and understand nature. And where better to begin than with the body' (Carolan 2009, p. 14).

A stronger 'relation' needs to be made, and the only way is to use the nature closest to us – our body – to bring on and open up for a profound understanding of naturecultures. For me, and in this thesis, nature is a body. It is a body that eats, that digests, that moves. This sense of urban nature is explored through the encounter methodologies (chapters 3-6). By way of the body, a relational and dynamic understanding of the city can be constructed. The dichotomy of nature and culture becomes contextualized, the Anthropocene becomes useless, and hence a deeper understanding of the role of naturecultures emerges. When a body is given agency, culture 'springs' from the very nature of a human body. Through the connect to food, the relation between behaving *for* nature and *with* nature merge.

Doina Petrescu hints at this relation in her relationscapes. Petrescu calls on critical spatial agency as a main driver in her practice. She examines what the role of the practitioner is in a relational practice? She therefore highlights relational practice, in her own atelier aaa, to be one that conducts "with intent and purpose" to create critical difference and take social responsibility [...] we have chosen instead to not act for ourselves or on behalf of others but to act with others, by empowering them to become agents themselves and to take collective responsibility. Rather than an elitist profession, architecture becomes as such a shared activity and a relational practice' (Petrescu 2012, p. 135-136). Though her investigations primarily concentrate on the role of the social in these urban spaces, the query is extended to all other materialities that are inherent in the space and act of food growing collectively. The practice she envisions is one in which the role of the expert is to create the conditions for collective spaces of urban activities that occur seamlessly everyday around the resource food; 'gardening, cooking, chatting, making, reading, debating etc.' These activities are seen as unconventional practices in the urban everyday which require certain relations to be assembled.

There is a potential to assemble these 'relationscapes' further, into a making of and relating to the vibrant matter which Jane Bennett refers to. For this to occur, I maintain that there should be an intricate inclusion of the body via various complementary embodied methods that parallel with the act of gardening. Petrescu states that, 'The aim is to create a network of self-managed places by encouraging residents to gain access to their neighbourhood and to appropriate and transform temporary available and underused spaces. It is an approach that valorizes a flexible and reversible use of space, and aims to preserve urban 'biodiversity' by allowing a wide range

of life styles and living practices to coexist' (Petrescu 2012, p. 136). In the creation of such self-managed spaces, Petrescu embarks on a mapping of relationscapes where the 'spatial initiator' transforms gradually to user and co-manager, and then eventually to an observer and advisor. This role is a transfer of agency and empowerment to local citizens who take a collective responsibility as co-creators of the urban space.

I find that both Petrescu's *relationscapes* and Bennett's vibrant assemblages can be complemented by Erin Manning's identical, though more dynamic, term which beckons movement. Manning's (2009, p. 6) *relationscapes* are 'places the emphasis on the immanence of movement moving; how movement can be felt before it actualizes.' She brings in the body(ies) in movement as critical components in the assemblages of these spaces. With a series of Lived Abstractions and the Sense Lab events whose ambition is 'a generative nexus between action, perception, and conception that can be modulated from the environmental side,' she places the body at the core of building 'modes of embodied experience and thought' (ibid, p.2-3). Feminist theorist Vicki Kirby (cited in Clark, p. 42) expands this further when she says, 'Corporeal existence is generative and generous in its inclusiveness; an infinite partitioning, mediated from and within itself; an animated representation whose fractured mirroring includes cellular and atomic life.' Within an embodied approach, research claims that, 'ideas about embodiment have become central to theorizing food. Grounded in the notion that we know and experience the world through our bodies' (Parham 2015, p.4). Parham supports the body's inclusion in food-related research and lists various approaches for civic agriculture, community gardens, geography, sociology, spatial research and, in her own work on, conviviality and sustainable urbanism where embodiment is included. Such approaches, whether visual or physical, propose alternative use of and conditions for the public realm with an exciting prospect for developing new methods for urban-making. This making includes the 'role of the sensual, the emotional, the expressive for maintaining layered sets of embodied relationships to food and to place' (Delind 2006, p. 221).

(E)motive motion

'What moves as a body, returns as the movement of thought.
Of subjectivity (in its nascent state)
Of the social (in its mutant state)
Of the environment (at the point it can be reinvented)

A process set up anywhere reverberates everywhere.
[...] Concepts must be experienced. They are Lived'
(Manning 2009, p. ix-x).

In embodiment and encounter lies the corporeal approach to the research. For Manning, the body is foremost the mode of investigating in her philosophy. Therefore, the body needs to be included in every hybrid of exploration, and the binary of nature and human needs to be overarched in order to create a new agency for every human, nonhuman and matter to participate in the assemblages. And for this to occur, we cannot only approach an Anthropocene as a rational

problem with rational and logical solutions. It is not rational, we do not know the outcome. The story is bleak and the ending is unknown, though we may speculate many possible outcomes. Therefore, enquiries that include embodiment need to be examined through bodily encounters with urban space that gain deeper awareness. By involving bodily motion with awareness and emotion, which I here call *(E)motive motion*, opens up for new understandings.

Movement is seen as a theme in this research with the body at the centre. When a body is in movement, the sequence of moving and flux can unfold in each encounter. Here movement becomes a materiality, a corporeal spatial material; for to be in motion is to also be through a continual metamorphosis of 'becoming.' A becoming however entails a relearning of oneself; so that the unknowing of oneself is needed in order to know oneself again. Braidotti (2002, p. 84) refers to this as a nomadic corporeal practice, in which she points out that 'becoming nomadic means that one learns to re-invent oneself and one desires the self as a process of transformation. By being nomadic (a nomadic subject) the body exists as a subject which is [...] in a constant political critical, passionate and energetic pleasure-seeking motion towards alternative locations, or with other words and terms [...] to be – is in the process of "becoming".' And, this shift too includes other vibrant matter besides the human species, it is 'an active becoming, a creative not-quite-human force capable of producing the new, buzzes within the history of the term nature. This vital materiality congeals into bodies, bodies that seek to persevere or prolong their run' (Bennett, p. 118).

Parham asserts that the vitality, complexity and intimacy of this relation can come about through the inclusiveness of food matters in urban everyday life (Parham 2015, p. 2). With this in mind, there is all the reason to use the body as a mode of enquiry for urban-making with food as a threshold entry. My intention is not about returning to past agricultural practices, but rather it is to re-adjust, re-acquaint and re-align the relation of the body to food matter thinking. As food is the most common and present 'material' of everyday urban existence, it is a valid threshold to entre through into understanding what a poethics could be in urban-making behaviour. There is already research dedicated to food as an integral part of urban well-being, everyday behaviour, and social cohesion (Wiltshire 2012; Tomkins 2012; Steel 2012), but this is not the focus here. My point of departure will be from a bodily and tactile mode to determine the agency of the body in urban-making. I maintain that urban space should not be separated from the corporeal realm. Allowing the senses to leak into an urban discourse through imaginative and performative stagings, can make the body a more refined instrument. The question is what spatial immersions trigger an embodied poethic behaviour? I explore this question artistically through encounters that instigate 'pleasures' of ecological living, thinking and inter-acting rather than Anthropocentric scenarios. As discussed, growing food can be a powerful shaper of urban space and lifestyles, and this experience has an embodied effect on environmental enactment, identity, and place attachment.

Chapters 3-6 are dedicated to modes of artistic practice and its theoretical foundations that drive the embodied methodology in the thesis. The chapters unfold using a voyage-metaphor to

the fictitious '*Island of Encounters*' (see section coming up), however first I would like to introduce you to our corresponding companion '*a deer in the headlights*'.

A deer in the headlights

This attentiveness to the Anthropocene started with a lecture for Rödasten in 2016, when I was asked to formulate my criticism of the Anthropocene and what I believed in my PhD work were ways forward for another mode of behaviour – one in which imagination, playfulness, mimesis and storying become driving forces devoted to using the body as a prime methodology. The ensuing title of the lecture was 'A Deer in the Headlights', which for me indicated a description of the paralysis that the Anthropocene creates, along with its hegemony that does not allow a way forward.

This encounter with the deer in the headlights, holds has a multitude of encounters. An encounter is an act – an invitation to engage – and an act of continual curiosity. The deer in the headlights is a metaphor; it is a dual role of being both the deer and the driver simultaneously meaning that there is an agency in this encounter too, not only a paralysis. For me, in this moment, the awareness of the encounter counts greatly. It is illuminated by all the other encounters that are simultaneously possible. This moment counts because of how we act as a result (not wait), to remain aware and active contributes positively to the environmental discourse.

Therefore, at the *intermission* section between the artistic interventions and the theoretical neighbourhoods, my correspondence with the deer ensues. The letters form an introduction to the theoretical unfoldings presented thereafter that are a way of relaying the spectrum of encounters available to us.

Intermission

Dear Deer - an introductory letter

September 18, 2012

Dear Deer,

We have met before. Perhaps you do not remember me but I certainly recall you and the depth in your stare at us as we drove past you late in the night, through a highway stretch with deep forest on either side. No street lights were visible – just the presence of the darkness, silhouette of trees, and the sound of the car engine.

Our encounter was important to me for several reasons, ones you were not aware of in that moment, but probably have encountered yourself several times before, just not with me. It is important because of all the possibilities it holds within itself. An encounter within an encounter, and many more.

Had I known there were all these possibilities, I would have probably written sooner to warn you ahead of time...and others too. But there is this moment now, and I am aware of it in this instant, and have decided to write now to you about it.

However, I do wonder if you have received more letters with other encounters? I would be so pleased to hear about them, and if you have a moment free to communicate with me, my address is on the cover.

In our brief meeting, you were standing on the side of the road and I was heading round the bend in my small tin car. As you came into sight, our gazes met. There was a grip in our stares, and one that I will never forget. And in this instance, I saw a multitude of encounters

Probable, Possible, Potential...

In this split moment, different encounters flooded our meeting. I want to write about them to you so that you are prepared for future such encounters. So here they are as a list:

- There was an encounter where you jumped out in front of the car. Your large body smashed through the window and fell heavily into my lap. Both of us did not survive*
- There was an encounter where you stepped out onto the road, and I turned the steering wheel to swerve out of your way. We missed each other just in time*
- There was an encounter which was not mine. Where I drove pass you, and you stepped out into the road afterwards, only to collide into the vehicle driving behind me. I watched this in my rear-view mirror. I stopped on the side of the road as quickly as possible and ran over to*

you, only to find that you were interlocked in an embrace with a human. Both of you were breathing heavily

- *There was an encounter where you stopped at the side of the road, and turned to walk back into the forest from which had come. Had you forgotten something at home?*
- *There was an encounter where I stopped my car next to you. There, we had a chance to talk. You told me of the things you have seen and about the forest you lived in. This encounter is not a meeting just with you, but a meeting with the wider body – the human, the nonhuman, other worlds and other bodies get extended. By meeting something, you meet everything.*
- *And then, there was an encounter where you had waited patiently until all cars had passed by, and then you crossed safely to the other side*

It was this encounter that actually occurred. I think of this possible encounter often, because what I really had hoped for was that we had the chance to talk. Had we met, I would have asked you where were you going and where had you been? I would have wanted to know what was on the other side of the road that you were crossing towards. And I have many questions. Questions like:

What is it like not to be a human? What is it to be nonhuman?

How can I make urban space for naturecultures?

I am embarking on a journey now. I enclose a map with my route which I hope you will be able to follow. I've written to Mr. Beckett about you to let him know we are in contact, as it seems you both need to meet so he can tell the boys; Estragon, Vladimir and Pozzo to stop waiting for Godot!.

I will keep you informed via letters while I travel. I know our paths will cross again once I return.

Yours sincerely,

Anna Maria Orrù

PART TWO

ENCOUNTERS

The art in the encounter

‘Encounter is the act of recognizing something – a planet, a woodland, person – it is the acknowledgment that there is something there which has the gift of life, self, soul and the ability to surprise’ (Empathy Media 2017).

This journey is about the critical act of the bodily encounter - physically, mentally, ecologically, and ethically. Our route is a carefully orchestrated ensemble of bodily encounters staged through interventions and backed up by theoretical neighbourhoods. The excursion takes us through the Island of Encounters to the fictional towns of Alba, Agora, Clinamen and Plūris, each a poetic metaphor for the research (see travel glossary). Our route map depicts a fictitious island in which the series of dynamic bodily encounters occur. Part 1 (chapters 1 & 2) indicate the willingness and desire to go on a voyage and have served as a preparation for the travel and introduction to the ‘Deer in the headlights’. In part 2, each encounter chapter (chapters 3-6) opens up with the artistic research practice and interventions. It begins with the film essay(s) that materially substantiates the work and are to be watched in sequence with the writing. This artistic entrance is meant to immerse you reader intentionally into the practice. Following this, there is a short ‘*intermission*’ by way of a letter from the destination to the deer in the headlights. This correspondence with the Deer occurs throughout parts 1, 2 & 3, and serves as an introduction to the theoretical neighbourhoods that will be visited and as a transition from the artistic into the theoretical practice. Throughout, the letters are a way of unfolding the research using the metaphor of a journey to choreograph the practice together with the theory as a form of knowledge generation. Each intermission serves as a moments pause to set the tone before entering the theoretical neighbourhoods which support the embodied practice.

On our journey, keep in mind the voyage metaphor:

- **Where** - at what site does the encounter occur – Alba, Agora, Clinamen, Plūris - and what theoretical neighbourhoods are visited?
- **What is needed** – what equipment and gear are needed on the journey? This equipment could be the theory, but it can also be a specific artefact such as Butoh training.
- **Who is met** – who is met is important because it is an encounter within the encounter.
- **The unexpected** – leave space for the unexpected encounter as the unplanned usually occurs.

Alba

Alba is a feminine given name from Latin origin. It means ‘dawn,’ the beginning of morning, of light, and of a meaning to the day.

‘Alba is our origin, it is our matrix, under the foundations of the city, it is the mother city. It is, white, the mother city beneath the holy city. It is the place of our birth, its name is Alba the White’ (Michael Serres – Genesis: ‘The Ballet of Alba’).

We visit Alba because the site offers a moment of contemplation and reflection before embarking into the journey’s meanderings. Alba sets the scene for Butoh and the use of the dynamic and sensing body. Alba orientates us for the next sites ahead.

Agora

A central public space in ancient Greek city states. A “gathering place” or “assembly”. The agora was the centre of corporeal, artistic, spiritual and political life in the city. Stories were exchanged, performances took place, and life spilled out into the open space.

We visit Agora because it is a concept entangled in urban-making as a spatial-concept central to urbanity and (ancient) urbanisation, where the poetics, politics and ethics of living emerge (2017, *in dialogue with Janssens*). In Agora, there is space for assembling a commoning agency, creating relations and worlds to become-with.

Clinamen

Lucretius, Roman poet and philosopher, used the Latin word *Clinamen* to describe how the world functions. This world is structured by coincidence, by catastrophe, by exceptions and it is the unpredictable swerve of atoms ‘at no fixed place or time’ (Ringgaard 2017).

‘But if they [atoms] were not in the habit of swerving, they would all fall straight down through the depths of the void, like drops of rain, and no collision would occur, nor would any blow be produced among the atoms. In that case, nature would never have produced anything’ (Lucretius - *De rerum natura*).

We visit Clinamen because the site allows to develop a perspective from above the clouds and view embodied practice as an atmosphere through imagination, using the senses, time and space as possible matter.

Plūris

It is a noun which means many. At times, the more becomes a whole.

We visit Plūris as a way to explore the collective body in a vibrant relationscape, assemblage and swarm with urban-making.



Sea of Embodiment

North Point

Gulf of Relation

West Point

Seasonality // Everyday
Ma
Time-Space

Senses // Atmospheres
Tactility // Imagineering
Imagination

CLINAMEN

Potential // Weathering
5,200m
Mount Unknowing

Assemblages
Swarming
Dynamic Collectivity

PLŪRIS

Biomimesis // Vibrant Relations

Collective Imagining

Metaphor Bay

Departure Harbour

South West Point

Sea of Feminist Practice



SCALE 1 : reality | ma time

Island of Encounters



North East Point

Corporeal Strait

Arrival Harbour

Islands of Urban Gardening

Critical Reflection

Perspective

Orientation

Situating

ALBA

Movement

Embodied Prism

Experiencing Body

Sensing Body

Butoh Bay

Unorthodox River

Affect

Dynamic Materialities

Performance

Worlding

Becoming-with
Imagining

Agency

Poetics of Relation

Spatial Agent

AGORA

Curiosity Bay

East Point

Fiction Bay

Nebular Bay

Alternate Harbour

South Point



north

PART TWO

ENCOUNTERS

chapter three

encounter 1 Alba

body | curiosity

The encounter in the city of Alba begins with an immersion into three interventions: Frauke – How to be invisible, Bodily choreography and a summer of Butoh training. The first intervention with Butoh choreographer Frauke participated in an exhibition at Göteborgs Konsthall (Gothenburg city art exhibition hall) which I was asked to contribute to through my experience in biomimicry research. It was my first entrance into Butoh training and understanding. As a result of my heightened interest in the practice and its links to biomimicry, I organised the second intervention of Bodily choreography which allowed more in-depth research in a full-day workshop with Frauke. In order to continue my immersion into Butoh, the third intervention revealed the choreography as I began to train myself in an organised week-long course with Butoh choreographer Carmen Olsson. The chapter, an encounter in Alba, visits supporting theoretical neighbourhoods that shed light on Butoh as a choreography and embodied methodology. These thresholds into embodied theory are supported by corporeal feminism, situated knowledge practice, and a sensorial and dynamic corporeality.

As we embark on the journey, I invite you to watch the film essays alongside the unfolding of the practice which occurs in the following sequence: Frauke – How to be invisible (LOVE Explosion 2013), Bodily Choreography (Orrù 2017c) and Stone Butoh (Orrù 2017d).

The Butoh dancer exist on the edges of time;
jellyfish, sea sponges, lunar cycle, microfossils.
 Becoming nothing to become something.
The dancer sheds the skin of the body that has been tamed and domesticated;
 python snake, eastern tent caterpillar, blue morph butterfly.
 There is a form left behind when the body disappears;
 cicada, crab, tarantula molting, starfish.
 Shedding the social, the personality. Gender bending,
 so the dance may surge from the depths of the body;
 swarms, natural fractals, flocks.
To become invisible the dancer must cancel the self. Cast off mental baggage.
 Butoh emerges when the body is squeezed,
 and when it is subjected to extreme conditions;
 resurrection plant, Namibian fog beetle, black-fire beetle, abalone shells.
 Metamorphose into something;
 larvae, starfish, seasons, Panarchy.

(Frauke and Orrù 2013)

Frauke

butohdancer and choreographer

how to be invisible

Love Explosion exhibition (2013)
Göteborgs Konsthall, Sweden



Frauke – how to be invisible

Biomimicry in Butoh

Collaboration: Caroline Lundblad (Frauke - Butoh Dancer), Anna Maria Orrù (research)
Date/Time: training – May 9, 2013. All day 11-17:00 | exhibition – June through August 2013

My beginnings with Butoh and ensuing collaboration with Butoh dancer Frauke started in 2012 when she asked me to conceptualize a biomimic approach for her performance entitled 'How to Be Invisible' at the Göteborgs Konsthall's LOVE EXPLOSION exhibition in Summer 2013. Our intention was to do a service exchange; I would provide biomimicry research for Frauke's choreography script and she would give me Butoh lessons in Gothenburg's Botanical Gardens. Briefly, biomimicry is the discipline of mimicking nature which I have been involved in since 2003 when I met founder Janine Benyus.

My interpretation for her choreography script was to extract all the featured behaviours written as an action and a verb, and therein link them to different organisms found in nature that behaved in similar manners. This connect between biomimicry, nature and body encouraged me to explore Butoh further in my research methods. For me it was an immersive practice that generated the level of contact with the site which I was searching for, and the strong connection of nature within the practice made it even more relevant given the ecological thematic in my work. The purpose was to find a method to capture sensory properties located in these contexts in order to create a better understanding between urban environment and embodied-selves. This performance is not the focus, but only the seed leading to continued work. The performance works from the following choreography notes for shedding as a physical act and expression of invisibility.

Body structure & anatomy: sock like, covering, soft, dry, moist, glossy, body scales, no up or down, outside surface/inside surface.

Nature characteristics: elastic, breathable, washable, waterproof, protects, cushion, regulate temperature, responsive, tactile boundary, attachment site for sensory receptors.

Part 1: mouth and crack

[A metamorphosis]

Escaping the skin, pressure from inside, body expanding, skin splits, breaking free

Snake body encapsulated, jaws activated, mouth breaks open

Pushing round back, back splits open

Tempo: bzzzzz (accumulation), zazaza (splitting)

Part 2: dots and decomposition

[Natural System, Slime mould, tree branch]

Rubbing against all surfaces, million dots of contact in all directions at the same time

Body is never centred.

Body limbs are collected to sides and away from room surfaces

Peeling dry skin, wrinkling and separating, gravity pulls, skin falls to the ground

Tempo: gugugu (rub)

I dance not in the place but I dance the place
(Guattari, in Genesko 2002, p. 122)

As place is sensed, senses are placed;
as places make sense, senses make place
(Steven Feld 2005)

Bodily Choreography

an encounter with Butoh



how can Butoh practice be an instrumental methodology in architecture?



it amplifies the experience of the 'body and space' relationship

Bodily choreography

An afternoon workshop

Producers: Caroline Lundblad (Frauke – Butoh Dancer), Anna Maria Orrù
Date/Time: October 23, 2014. All afternoon 13-18:00

The intention of the Bodily Choreography workshop was to stage an intervention in which Butoh could be explored as part of an embodied methodology to approach the human body and space interplay, rhythm and timing relations to space, and space as a bodily-relational interaction process. The aim was to investigate the potential of such embodied knowledge practice in architectural-thinking and to share the methodology with students, to teach them Butoh techniques, and to gather their interpretation and reactions into how this could become a viable method in the field of the built environment. I wanted participants to train their ability to trust their own imagination through learning and working with a Butoh body set into different configurations of following and leading, touching and sensing perceived objects in the campus environment. The imagination structures space by what the senses communicate.

Participants were immersed into the interstices between body, movement and internal/external environments so as to explore how their bodies are motivated by the space and vice versa. The body was to become a device, a cartographical tool, tracing the landscape in an exploration for understanding urban space and also one's own body through this newly generated contact which also included a particular interaction between bodies, not only an environment including other bodies.¹ I wanted to inscribe the landscape into the body and the body into the landscape, creating the series of movements which could generate such atmospheres. The workshop was organised into three sequenced parts:

- Part 1: Butoh training with Frauke outdoors in a semi-natural urban environment (hillside forest) and an open piazza.²
- Part 2: Once participants had learned the Butoh basic techniques, the training moved indoors to rehearse a cyclical performance where the bodies now choreographed the space and the participants acted as a group in a swarm-like configuration.
- Part 3: Participants were given a set of questions which they were asked to keep in mind during the entire workshop. They disclose their thoughts in a reflective period answering questions, and we end the workshop in a dialogue about Butoh, organoleptics and urban-making (see catalogue).

1 Just a reminder, this is the wider body I am speaking of and not the body/mind implications (see chapter 1)

2 Participants in the workshop included Chalmers' MA students in architecture: Zhao Wu (MA-Arch), Johannes Luchmun (MA-Arch), Xue Han (MA-Arch), Chin-Yuan Fan (MA-Arch), a butoh student who collaborates with Frauke, Brynhildur Þórarinsdóttir, and Suriashi dancer Ami Skånberg Dahlstedt, and an architect from Italy Elena Carlini. Photographer: David Relan also spent the day with us.

Outdoor training

The first set of outdoor exercises took place on the steep hillside forest which lies at the edge of the university campus adjacent to a single-house neighbourhood. The second set of outdoor exercises is in an open piazza space. The third set of exercises moved indoors to the department's Atelier space, a large studio space used for art courses. Adjacent to the Department of Architecture, the outdoor environment provided a variety of green spaces for Butoh practice; a small area of hillside forest that felt like an instant departure into nature away from campus and busy streets; a silent space ideal for reflection and intimate training away from the public's eye. The space offered different gradients of height and perspective to the campus, as well as a variation of natural settings – trees, bushes, autumn ground-cover. Another outdoor area was an open piazza space in front of the entrance to the department of Architecture, with a grass lawn surrounding a large drained fountain. This space offered an in-between open space where the public was present, but nevertheless, a large open space with a variety of materialities to explore: concrete sculptures ranging in size, grass space, an empty fountain pool. These settings chosen for the outdoor work offered a progression from the secluded green space to the public green space and finally transitioning to the intimate indoor studio.

As the Butoh begins, I recognize the techniques when I did my training in the Gothenburg Botanical gardens with Frauke in 2012, however, in this workshop I am an observer. Frauke's aim is to teach participants to build trust, both with their Butoh partners and with their own body. This trust entails a deep concentration to build an awareness and reflection using their sensorial instincts to navigate their surroundings. Participants are placed in groups of two in which one person is blind-folded with a cloth over their eyes, while the other is an observer who must care for them so nobody gets hurt, falls or collides into objects. Each participant in the duet takes a turn to be blind-folded and to observe. The outdoor training comes in a series of four phases in two outdoor locations:

- Phase 1 – The participants line up in a long chord and walk slowly and silently up the steep hill to the top of the wooded area led by Frauke. The intention is to gradually slip into a quiet and reflective state. The bodies become silenced, listening and sensing.
- Phase 2 – In the first part of the exercise, the blind-folded participant and their observer are facing each other holding hands. In the second part, the blind-folded participant is facing outward with their observer behind gently holding and steering them away from obstacles. The observer gently pulls and steers their blinded partner first in a forward direction, then in a backward direction. Each participant takes turn in all the exercise conditions – blinded, observing, forward facing, outward facing. This part of the exercise is meant to develop trust within the duet and rely on an acute dependency of all other senses to move through the space since the visual is removed.

- Phase 3 – The participants are now more comfortable and trusting, slowly being able to rely more on their sensorial readings of the space. For instance, you hear the whistling of the wind or the rustling of branches which can alert you to a tree in your path of motion. You alter your route based on what you are hearing, as if your ears are touching the tree ahead of you. When in a Butoh state of alertness, the senses become entangled and perform different alterations. Touching is replaced with smelling or hearing and vice versa. In this exercise, the duet is no longer holding hands, and there is a greater freedom of roaming movement given to the blindfolded person. The observer follows ahead and behind, taking care, from time to time gently nudging their blinded partner away from any danger. In this phase of the exercises, participants have reached a sensorial trusting of their bodies to navigate them through.
- Phase 4 – Participants return in a single line to the piazza area. This exercise explores the soft and hardscaped environment using the Butoh sensitivity from earlier exercises. Each participant in a group takes turns in being blindfolded, while the rest leads them to explore a variation of tactile situations. The site offers many such encounters; concrete sculptures, a drained fountain, a pebble walkway, a grassy field etc. There are fallen leaves still wet from Autumn's windy throwings. There is moist moss in the emptied fountain rendering it slippery. The pebbles make crunchy sounds as you walk on them. The stone sculptures are large enough to climb into. The embodied exercises offer an alternate understanding of the material properties using all senses. The participants experience these properties from inverted perspectives; the material is now also an agent as it experiences a body. For the architecture students, this is a different way to experience materials by way of an embodied manner.

Indoor training and reflection

After a few hours of training, the participant's bodies are sensitized and alert though tired from the sensorial input but keen to continue. The indoor training has three parts:

- Frauke leads the group in a private performance, an intimate practice for understanding corporeal speed, both on the inside and on the outside of the body. The participants begin by walking in a circle following one another at different speeds. Their eyes are closed yet they stay in circular unison.
- The next performance divides the group into two. One set observes while the other lines up facing forward and slowly walk forwards. This standing Butoh position is described as; knees slightly bent, arms swinging on sides, feet sliding, hips as forward motor of movement.
- The final stage of the workshop is a reflective period to give feedback silently in their own space they have the time to answer (see catalogue). We wrap up with a discussion.

'stone rests for millions of aeons
breathe once every thousand years
shaped by the elements

the body's smallest units are now stone particles
heavy, heavier, heavy
compressed, the body is filled with air between these
particles.'

(Su-En 2003)

Stone Butoh

*'stone rests for millions of aeons
breathe once every thousand years
shaped by the elements*

*the body's smallest units are now stone particles
heavy, heavier, heavy
compressed, the body is filled with air between these particles.'*

(Sj-En 2003)



A summer of Butoh training

Groundwork

Producers: Carmen Olsson (Body Weather dancer)
Participants: Anna Maria Orrù, Susan Kozel, Ami Skånberg Dahlstedt
Date/Time: August 1–7, 2016.

[spoken while dancing]

Although I don't clearly understand what I'm doing, nor perhaps do you fully grasp what you're seeing, yet it still comes to life like this, unexpectedly. I want to keep dancing in such a way that deeply touches you for some inexplicable reason' (Ohno and Ohno 2004, p. 221).

'Your every movement, regardless of how small, carries huge consequences. No matter how fiercely the wind roars, remain calm' (ibid, p. 297).

This was a week of improvised research and Butoh training with Carmen Olsson. The embodied research had reached an obstacle in the method explorations, I found I lacked more experiential understanding of the body work since till this stage I had predominantly been an observer or producer of workshops. The only Butoh training I had took place with Frauke in the Gothenburg Botanical gardens prior to our collaboration for her *How to be invisible* exhibition. As part of the thesis investigations, this series of training aimed to further explore the Butoh work using a branch of the choreography called *Body Weather* (see encounter 3 for a detailed description of *Body Weather*). The intention was to immerse myself in the practice for week-long practice to understand bodily the sensorial experiences that students had been having. The practice would be led by Carmen Olsson immersing us in a variation of modes and interfaces between the body and the environment. When I organised the week training, academic colleagues Susan Kozel (Professor at K3 Malmö university) and Ami Skånberg Dahlstedt (Suriashi dancer and PhD candidate) asked to join. Both were trained dancers working in academia looking to embodied methodology as a way to study somatics (Kozel) and queer modes of Japanese choreography (Skånberg Dahlstedt). Their presence in the days was critical in terms of the contact they brought into training and their dance experience.

This section is presented as a diary from the week's trainings separated into 5 days of various embodied arrangements, exercises and contexts. Along with these diary notes, I include my impressions and the discussions that took place with all participants.¹ The moment was ripe for understanding the Butoh practice, not as an observer and producer of urban performances, but from my own body as a performer and practitioner myself. Up to this point I had collaborated

¹ The Diary notes are a collection from my own thoughts, the feedback from the other participants on the course and also the discussions with Butoh dancer Carmen Olsson.

with performer Frauke on two occasions. The understanding of Butoh has been a three-fold journey for me. First, I embarked on understanding the movements in the short training session in the botanical gardens. I then investigated the connection of nature to body theoretically through biomimicry research for Frauke's performance exhibition. I saw that the three occurring relations – nature to body to movement – were a potential assemblage that could be used in understanding space. In order to strengthen this hunch, I read various literature on Butoh from international practitioners, beginning with writings from Butoh's originating fathers – Hijikata Tatsumi and Ohno Kazuo.

Thus far, I have understood that Butoh is a dance choreographed by its surroundings, the site in which the body dwells. This training uses the methodology to examine the body in urban-making. Before beginning, I listed my outstanding questions for training to Olsson. I wanted to understand how more aware my body became of space through the practice. How would the space be influenced by my movements, and how does movement influence the space? What memories of the space would remain after the week of practice? Space here means both the role of creating space and performing the space. The role of creating space is an important parameter to concentrate on because the research intent is about urban-making, not becoming a performer.

In the days of training, there were several landscapes available that changed based on the time of day and temperatures. These differentiations relate to aspects of the environment that are experienced on micro-levels, at times even on the nano-level, but not on the macro-level of a 'landscape.' It is to explore the landscapes on the body(parts) scale, in order for the body to also become a part of the 'landscape.' In gaining such situated experiences, it becomes easier to understand the micro-level of 'nature' or natural bodies which can be detected in urban environments, a rediscovering of the *micro natural* in the urban. Landscapes included a sandy beach, a marble quarry, an olive grove, a vegetable garden, a mountain-top plateau, and a river bed. The day temperatures also became a landscape element. Because of the heat, the body goes into a hibernation-like mode slowing down.

This was not my challenge, but for the others as they were trained dancers, brought up a tension to divert energy towards 'not performing.'² Trained dancers also have a challenge in Butoh because they are overly formally trained. Butoh is at its best mode made for the non-trained body, the amateur. Each day was about pushing limits. The body would let us know when it was enough. The first day's exercise was intended to become comfortable with using the body as a medium and with being in performativity with a site. Each day of practice was concluded with a reflective period, under the shade, discussing our experiences. The week was about apprehending permeability. The body learned to become a membrane between inside and outside.

2 My dance training is limited from when I was very young living in South Africa. I took two opposite strands of dance: ballet and contemporary African dance. Furthermore, the way in which I have been using my body the past years has been through a lens of food. One obvious way is gardening, another is my direct relation to food itself. For 10 years now, I go to a Polish sanatorium to detox and cleanse. This is a practice of body based on metabolism and internal movements. Alongside this detox intervention, the body is in high modes of movement; yoga, running, gymnastics and so forth.

A Butoh diary

Day 1

August 1, 2016.

Thematic: Learning to trust the body and engaging the senses. Removing the visual.

Location: Olive tree grove, dry August grass, prickly brambles, wrapping ivy, and wild flowers everywhere. Evening sunset.

Exercise: Blindfolded work for 45 minutes each in couples – an observer and a blindfolded explorer. Feel the surface around you, use smell, taste, sound and touch as guiding navigators. Bring up the volume of the senses. Rely on the other senses in a trustful manner. Observers must protect the explorer so they did not fall into a ditch or hurt themselves, but also observation is a form of mimicry. While observing, mimic the movements of the explorer. Partner should not interfere. Experience the olive trees and do what you need to do to get as much input as possible.

As the visual is taken away, the inside is coming out, similar to the feeling of jumping into a pool of water. It is good to begin Butoh practice with cutting out the vision. This helps in entering a listening state, a reflective atmosphere with the surroundings and with being more aware of outside and inside. As a result, there is a larger awareness of the inner voice, and inner discussion, which enables for the sensitivity to surroundings to expand. Light and warmth become as much a material as soil and trees. Shutting out sight also helps with shyness, so that individuals don't feel they are being watched. Blinded works helps with accentuating scale experience as there is opportunity to imagine being a variety of stone sizes for example, small stone next to big boulder. One can determine their size of materiality?

18:00. This place is familiar to me, I know this landscape. I live here and this is our olive grove. After this practice, it has changed. The trees are louder and more known, and I have increased my walks in this part of the grove to greet my new-found neighbours. My sight is removed, and initially, so is my balance. I begin to feel the ground under my feet more intensely, and the concentration of the space shifts from head and chest, down to my hips and feet. I feel every rise, dip, softness, hardness under my feet. Sounds are amplified: crunchy grass, flying and singing birds, scurrying lizards, rustling leaves in the wind. I travel the great distances from tree to tree. There is a resistance with my mind, as I am trying to picture a map of the grove in my head, and I think I am navigating a known path. Each tree I meet differently, I begin at its bark, at its support, and feel my way around and up. There is a certain scale to each exploration. The fine detail of the olive branch, each leaf and the slim branches that hold the olives. The strong, thick and heavy bark that holds the canopy above. I smell, listen, lick. The cricket sounds interrupt me, so I follow them too. As I get closer, it stops cricketing. I move away again, and it starts again. For several minutes, we are in conversation: I move close – it stops. I move away - it begins. Repeat. Repeat. Until the dialogue is punctured by the whistling of wind. Time gets felt, shadows are felt. The sunset stretches the shadows, and I can feel them cover my face and my arms though I cannot see them. The sun's heat, and the respite in the shadow, is welcoming. I move the body to converse with the shadow - back and forth, in and out of the shadow. Shadow-play on me. I take off the blindfold, I am far away from the place where I thought I was standing.

Day 2

August 2, 2016.

Thematic: Awakening the senses. Outside coming in, using the outside to bring impressions in. Understanding body from inside on the outside: bones, skeleton, skin.

Location: Santa Ana mountain on Mount Rocca, Santa Ana, Italy. A trail snakes up the mountain leading to a top flat plateau.

Exercise 1: A silent walk up the mountain to the top plateau

Walk up in silence in a single row, each of us taking turns as a leader in front who decides when to stop, and when to continue upwards. We stop to take the landscape in. Breath, watch, touch, smell deeper and fuller. The slow manner walk gives a different value to the experience of engaging with this large landscape. We are to take the landscape in and stop only when we feel the need to turn the volume up on something. Take in the sound of the leaves, feel the stone cliffs, inspect the moss growing in the crevices. At this speed, the mountain is different, intense, affective. The body is different too: I feel each muscle, the shift between muscles, the feet meet the surface differently. I try to drink the landscape, take it in through my mouth. Weight shifting also becomes an important part of the practice. With the feet on the ground, transferring weight of one foot to the other, the transition of weight, is critical. To explore with shifting the weight very very slowly, there is a keen concentration on the point of contact with the ground. A walk that should have taken 45 minutes, turned into a two-hour journey.

11:00 When we reach the top of the mountain, the rest of the day is dedicated to what Olsson refers to as *Body Manipulations*. The aim is to understand the bodies skeleton and how it functions in its movements; bending, lifting, dropping, moving. Gravity becomes a medium to contend and discuss with, as does heat and light raindrops.

Exercise 2: Arm manipulations

We are in pairs again, one is the receiver while the other is the giver of movements. The receiver must have their eyes closed, and the muscles must be completely lax, flimsy and droopy. The giver must explore the receiver's arm from the outside, as if understanding an arm for the first time. Investigate the bone, the joints, the skin, the muscles. What movements are possible? How does it drop and dance with gravity? Roles were changed into different configurations so that each participant experienced the different bodies. Three times a receiver. Three times a giver

Exercise 3: Parallel passive active manipulations

Second exercise is repeated but this time one must be a receiver and giver simultaneously with each arm. As one arm receives manipulation, the other arm gives manipulation to the partner. This strange experience was a test in resistance, concentration, tension, and relaxation. Bodies hugged and drooped on each other. Laughing. The exercise was repeated alone as a singular receiver and giver by oneself.

Exercise 4: Nose finger exercise

An exercise in couples again, with one person leading while the other following. This time, the aim was to follow the index finger of the leader using your nose. The concentration began with vision on

the tip of the nose, the whole body must follow the finger swerving around the landscape – up, down, quick, slow, around and around. Very dizzy now. Leading with finger is a power play, the follower must surrender their body completely to following the finger.

Exercise 5: Bag of bones

In this exercise, the receiver is a limp bag of bones, a corpse, on the ground. This person is physically manipulated by all other three givers, sometimes being carried around. As a receiver, you could not intervene or move. A deep feeling of helplessness but simultaneously very relaxing. The givers are to investigate how bones are connected, investigating the whole body but also parts of the body. The aim is to learn to know the body from the outside. All the narrative that comes up in the moment is also important. I am grateful to be carried, and I want to thank you for carrying and holding me, but I cannot say anything because I have no voice. I am a bag of bones. Trust is vital in order to let go and experience everything that this exercise can give. Confirming the body and touching it. Am I a numb and blind body, am I ill, or am I dead? The body is a floating body. It needs no grounding. The giver touches not only with the hands but also with the eyes and all other senses are involved. The aim is to see through the skin and down into the bones.

19:30 At the end of the day, I recognized that we had brought the landscape inside the body. We had begun with being out in the landscape, but it was the body that helped us access the landscape in another way of internalising in. By using the outside, we developed an acute awareness. At times, it felt like the landscape on the inside of the body was so vast and I could not contain it. It spilled out into the surroundings. I situated myself. The head became so clear. Cleaned out by the rushing landscape coming in.

Limits tend to be construed in one direction, but in Butoh, limits can be just about being still – dead like a bag of bones. Carmen uses the words Break down, rather than exceeding limits.

Day 3

August 3, 2016.

Thematic: Materiality - stone

Location: Abandoned marble quarry with water basin in the bottom. Surrounded on one side with high marble cliffs that have been cut apart in the past.

14:00 The quarry has many surfaces: water basin and dripping water from a spring. Large cliff surfaces that have been cut previously and the quarry has now been abandoned, but they left their destructive traces. Quarries have a beauty and grotesque atmosphere simultaneously. Mosquitoes have occupied the standing water and a house nearby has been left behind. On the quarry side, small rocks, plants - nature has returned to the space.

Exercise 1: Be a stone rolling around in the quarry

The aim was to be a stone amongst the other stones in the sun, rolling around in the area. We were to traverse the quarry's sides, overlooking the water but not to fall in. The choice was to either be a small or larger stone which determined the scale, speed and distance traveled, and the sounds that the stone made.

14:30 My stone had all the senses, it had eyes and could see neighbouring shrubbery and stones. My stone had smell, and it could sense the wonderful scents coming from the earth. As if it was liquorice candy. I found myself wanting to roll and always land with my face in the ground. This was the imagination - stone wanting to land in the liquorice smell. From the practice, an in-between space between reality and imagination, the narrative began to get constructed and it took a few moments to get into the role of the stone on a journey for the candy smell. I thought of the structure of the stone, leaning on my field - architecture - I imagined what material and structural properties the stone would have. This added layer of knowledge became helpful in constructing the imagination. I encountered a dead bee, holes in the ground that were homes for other animals. The stone came to know its surroundings more than the human could.

Exercise 2: Be the in-between space, whether soil, or dirt, or weed etc.

In the second exercise, you had to become the space in-between the stones – the soil, shrubs, moss, etc. Choose a material that is trying to fill up the space between the stones.

15:00 This is a struggle to move through the quarry surface. This exercise is full of physical resistance because the quarry has a jagged, course surfaces. You cannot be slime mould here, a growth that smoothly covers the area. I wanted to be a shrubbery that sits in the crevices between the stones. I watch the shrubbery and their interplay with the wind. I copy their movements. Perspective becomes an important factor. Some shrubbery could see over the rocks and receive a full view of the quarry. Others were too short and had limited perspective of the space. The lichen had a different perspective all together, their aim was not perspective but intimacy. They hugged their surfaces tightly, as if clinging for dear life. I imitated this relationship of embrace. I became a different kind of support and adhesion on the rocks. In one instance of my standing shrubbery stance, my feet were the root and support. My motion motor came from this position as my hips swayed. In the case of the lichen, all four limbs were used and the body came in full contact with the surface. Another participant explains that she wanted to be the clay, the sand that was there before it became the rock, a negative space, the mould from the past. Another participant describes that she is the negative space, but again the desire to perform the space clouded her experience.

Exercise 3: Stone burial and birth

In this exercise, each of us buried the third under a blanket of stones sourced from the quarry. The person being buried was to lie completely still, eyes closed, and take in this experience of slowly disappearing into the landscape. We were to remain motionless for as long as we could, needed to, or wanted to withstand the experience. The other participants placed rocks of varying sizes on top of the subject, slowly covering up the body into the landscape. As they lay each rock, they had to think about burying something, a metaphor. Each buried a different element: the pain of a friend, distrust, the feeling of being poor etc.

17:00 I needed to escape my body using my mind in order not to become claustrophobic. I imagined my body outside this heavy cover. During the experience, I did not know what part of

my body was being covered up. I was no longer in my body. I was in a memory of what my body feels like when it is free. I imagined myself sitting on the edge of the quarry, with my legs hanging down over the water below. Swinging my legs back and forth. Olsson tells me later on that this is similar to psycho-physical imagination methods, a regular reaction in torture circumstances. But we are doing this for creativity and empathy building, to learn to establish new ideas and imaginations with the body, and then to go there. The aim with exercising empathy, is to learn how to go to another body with imagination, but also to maintain looking after yourself in the same moment.

I did not feel the heaviness of the stones until a certain moment, when pain entered my elbow and right foot. The biggest heaviness came as the rocks started to cover my chest. Finally, coming out of the stone blanket, I felt like I was being liberated, like I had learned to breathe again, and an incredible strong feeling of safety washed over me. When coming out, I had to trace through my memory and remember how to move my fingers and toes again. It took several seconds for my toes to register the message from my thoughts that I wanted to move them. Right foot - move. Left foot - move. Slow. Slow. Slower.

The energy starts to return to the body. In Butoh, this slow return to the body is trained in certain exercises where the body has been pushed to its limits in an exercise. Butoh practice is about bringing the outside in, and the inside out. It is a constant signalling. Outside coming in, and using the outside to bring it in. Is it a constant back and forth between space and body. We are linked to landscape in another way, we become a part of it using the body. I had to become a stone landscape, and now, I return into a body again.

Day 4

August 4, 2016.

Thematic: Materiality – stone

Location: The river bed exercise. The river bed comes down from the Marble Mountain above.

Stones in the river are all round marble

Exercise 1: Explores the river bed with full body

We explore the river bank area with the body, letting different parts of the body meet the small stones of the river bed. We experience it as different stone characters.

10:00 As small stones, rolling around. We choose the reason for the rolling ourselves. Some were moved by water, others by strong wind. The small stone rolled around bumping into other stones, apologizing to the bigger stones. Then the little stone was growing, becoming a bigger stone that no longer had to apologize. No water or little water in river bed.

Next, came the rain, and the river bed is filling up. At the same time the stones erode and gradually turn into dust spreading on the surface of the water. The stone dust floats on the surface spreading over the area. Then we slowly fill ourselves with water, first being water all around us, inside the body and being surrounded by it. Then we fade out the water until it is only present

in the feet and legs. We move the water around the body, to torso and pelvis ... then alone in the pelvis, and torso. Then to the arms and hands. Head and neck. Until finally we fill up the whole body again with water. Water imagination work in Butoh requires a lot of concentration because it is constantly bombarding the imagination. It is exhausting because one does not think about the body on this detail level. My water was still and dark green. Kind water. It filled in and allowed me to float peacefully. It made me realize how often we turn our back to our back as we are so front orientated. I had really to concentrate how to get the water into my back. It can be relaxing to concentrate on your back, because it is so strong.

A stone can kill you but it is also soft, it can be friendly and unfriendly at the same time. After a while of practice on the stones they became softer. You cannot move quickly on these rocks, especially as we are walking barefoot. The surface hurts the heat from the weight of the body. At the beginning, I had such a resistance to the pebble surface. It hurt my feet so much, especially given my weight. I could only move with my feet and hands, using all four limbs to navigate around, distributing the weight. It took a while to feel comfortable. The river bed has the smell of a skunk. The smell reminds you and brings you further into the landscape. In the exercise with imagery of water, the smell changed. I could smell fish. The smell changed in the shadow, compared to in the sun. An apologising stone. We had to use our imagination more because we were not just stone, but a stone with a character. The stone had a voice and emotion.

Exercise 2: My training alone with Carmen Olsson

We are in a part of the riverbed, further upstream from exercise 1, where large boulders have been carried down the mountain and now navigated the flow of the water into different flowing streams and into small pools. I am instructed to be a four-footed animal exploring a deeper area of the river bed. The aim is to move around the site like the animal would, and figure out what movements it would make. This is about harnessing imagination once again.

14:00 Explore the edge condition of water and stone, we chose a small pool we could immerse ourselves into. As an unknown animal, perhaps a dog or a deer, I explored the landscape on all fours. Four legs that need to be choreographed. One foot, two, three, four and back into some form of movement. It helped me to distribute my weight throughout my whole body, but also imagine how an animal would think about this place. I play with the small tadpoles in the water, and looked out for fish I could possibly eat.

Following this, I am instructed to use the body as a listening organ. I am to be one big ear. As a listening organ, I try to listen with my back. My body moves very slowly, listening. I listen to the river streams with my hands, feet, chest and so forth. I listen with my back too. This is difficult because I could not turn my back on the landscape. Back is front, and front is front. A face elevation emerges across my entire body. I am a free-standing object that experiences the landscape from all sides. The aim is not to let any part of my body remain passive.

20:00 In the day's practice, memory became a material. At times a fresh memory came up in the imagining process, and sometimes a longer-term memory arises because of the landscape experience. Contact. For me this came up as a word because the practice was quite painful at

times. The effect of this materiality impacts the insides, but also impacts the mental state. It is a stress reliever completely because you can be nowhere else but here, in this moment, walking on these stones. What would it really mean for the foot to taste the water or listen to the water? I am to push myself, more than just experience the water with my foot. An aid in this exercise is to use a metaphor. Perhaps, should I listen to the water with my foot? In cognitive body research, the metaphor is a powerful tool to use when shifting habit, rational or behaviour. To be lost artistically is important. It is not about finding a solution, it is about taking in the experience and pushing your own envelope of artistic development. For me, this is the in-between - the interface between architecture and art.

Day 5

August 5, 2016.

Thematic: Rain choreography.

Location: A vegetable kitchen garden in my backyard

Exercise 1: Unexpected rain Butoh practice

The morning brought on torrential rain storm that lasted 30 minutes. This practice is purer, almost child-like. A simple exercise, no preparation, no plan, the rain had not been expected. This is also Butoh, the unexpected moment of practice given by the landscape.

8:00 We are sitting on the front steps of the house quietly watching the heavy summer rain as it lands in the olive grove. Instinctively, Olsson instructs me to run out into the kitchen garden into the heavy rain and experience this event with my body, not just my eyes. The landscape has become an elemental medium. The rain softened the soil so the weight of the body presses my feet into the ground. I sink down. The imagining metaphor is to let your feet become like roots, sliding deeper into the soil. Similar to a plant, the task is to take in the water and to count each drop that lands on my face and body. We discuss about posture: the posture of space and the posture of the body. Posture as a making behaviour.

The rain stops, we dry up and change out of our wet clothes. Now we return to the garden for further practice. We return to do some weeding, but the aim is to weed with intent using the situated knowledge we now carry in the body. My hands feel the texture of the plants become more personal and characteristic, similar to the olive trees of the first day of training. The contact holds with it also all the previous months of caring for the vegetables for them to arrive in this state. A memory line extends from my body to the plant. Time has been stretched.

Day 6

I ask about body weather over tea

August 6, 2016.

11:00 Carmen Olsson's trained Body Weather under Min Tanaka on his farm in Japan. Body Weather sensitivity work has a wide range of exercises; fast, slow, individual, in couples, solo work, more or less energetic. Some exercises originate from physical theatre training. The body manipulation work shifts from being a simple warm up into a rough and difficult

endurance exercise, depending on what the aim of the body work is. To bolster body strength, muscle training and endurance are used. To develop stage awareness and balance, slow simple movements and forms are used. Body Weather has 3 forms: mind-body or muscle-bones (MB), Body Manipulation, and Sensitivity work, each with different qualities and ways to challenging the physical and mental body. To manipulate is to move something from the outside to the inside.

Feedback, experiences and observations

Interventions: Frauke - How to be invisible, Butoh workshop & Butoh Summer training
Films: Film 1: Bodily choreography, Film 2 – Stone Butoh, Film 3 – Frauke How to be invisible

Motives: Activate and alert the senses. Find modes of reflection with material surfaces
Main theoretical neighbourhoods: Grosz (corporeal feminism), Ahmed (orientation)

These films and interventions are focused into understanding levels of sensory experience and how they became alert through a reflective practice such as Butoh choreography. The interventions allowed participants to practice their sensorial orientation through heightening and practicing awareness – mostly with the visual sense removed so that the other senses could surface. The body emerged as a valid membrane and an interface for critical practice.

Intervention 1: Frauke 'how to be invisible'

This intervention was a strange orbital experience as I was only invited onto the process in the very beginning of the project to do the biomimicry research. It was not until Frauke's exhibition that I had the opportunity to see how the research had been used. The video work was very sensual, aesthetic and clean. I found the film striking and grotesque, and watching Frauke's body move in the white space in her snake-like skin activated the biomimicry research. I had to return to the exhibition with the printed script in hand to watch it again.

I had particular insight, I knew the costume was not snake skin, it was dried fish skins brought together over months of careful stitching and interlacing by textile artist Gerd Karlsson. The crumpled, thin and delicate malleable shell was the intention of Karlsson's creation, and to see Frauke move inside this delicate skin cover enhanced her butoh performance, her performativity. It rendered the Butoh not only as an aesthetic intent but also one that was immersed in a long period of dynamic biological metaphors of making and researching the organisms. The performance enhanced these biological metaphors in two ways. First, it became an enactment of a metamorphosis as Frauke slowly withdrew from the skin and her white body emerged. Second, the aesthetics of the body in the costume decomposed into a fractal in the movement. This was most prevalent in Karlsson's costume, the strings of dangling skin around her, her arms slowly lifting and engaging with the material rubbing with the surface in all directions. This fractal decomposition had been written into the choreography itself, and to see this emerge as a movement was a testimony to the performance's translation. My reflection is that the intent of this intervention occurred in linking the organism to intended movements that Frauke had asked for. Moreover, as this was my first contact and short training with Butoh, the translation

of natural properties and potential was a significant finding in itself. Both the body and the costume became entangled in a spatial configuration with each other. This was the first hint that Butoh could become a valid form of enquiry in the research process but that the research done beforehand was equally vital in terms of the process and performance. Furthermore, it pointed out that biomimicry research can become a dynamic and enacted endeavour as well, as it played a key role in the costume's materiality and in the choreographed script which was a result of the costume. After practicing biomimicry for over 14 years, this was a strong insight and contribution to the field itself.

Intervention 2: Bodily Choreography – Butoh Workshop

Participants were asked four questions at the end of the day that focused on the experience of a heightened Butoh state, material experience of space, and the experience of the internal body (Butoh Workshop Questionnaire 2014). When participants were asked what they noticed when in a heightened Butoh State of awareness, there was a general reaction of attention, safety, grounding and calmness. Participants had a much-heightened sense of space and used their senses to describe elements in the surrounding, such as the sound of leaves or rain. A resulting recognition was that the intensities of nature and space can be experienced through the other senses - apart from eyesight - and as a sense of time and spatiality. In the words of participants, a 'knowing the weather' by touching and listening and 'Leaves falling down from somewhere high' (ibid). Some participant's understood that her/his senses helped in understanding topography to attribute a body quality to non-human materiality such as 'grasses alive' and 'dead bodies of grasses, leaves, branches' (ibid).

The intervention probed corporeal agency through the reflective state a body can reach when it is in a very close relation to space in '*otherwise-ness*'; a relation of trust to the context but also to one's own body and experience. One participant took ownership over their experiencing realizing that 'What I sense is coming from the experience of my own body – feet, hand, head, ear, nose - rather than from my mind' (ibid). This activated body was seen as awake, aware, focused on the here and now. The alert body 'saw things that I forget to notice in everyday life' (ibid). The awareness helped to alert to the materiality of the place either linked to an emotion (such as joyful, safety, inviting, grateful) or to tactile properties (such as soft, hard, rough or wet). There was an understanding that material properties reveal and make the world around us and 'locate' us in the type of space we are in, even evoke memories. One other finding in terms of methodology was that the afternoon of practice was too short for participants, and that a longer period of immersion would have been more beneficial. The question about internal speed in Butoh practice brought up one very interesting answer – 'Tension, everything feels' (ibid). Perhaps the question was too difficult in such few hours of Butoh practice but nevertheless it is provoking that the experience is one of 'tension.' This seems to me a much better word than alertness for it denotes a particular relation that calls for further probing and relieving.

Butoh practice opens up for spatial practice that incites grounding, situated knowledges and

perceiving time as a non-lateral and sensorial experience. It allowed for vulnerability and the emotive to enter in when understanding space, and for the unnoticed to become noticed. Butoh allowed the materiality of space to have a voice, this could also be seen as a volume on the thing-power materialism that Bennett alludes to.

In a group discussion that followed, we reflected on how different it was to learn about architecture from the perspective of using other senses besides the visual. Participants were very inspired by the use of the body to do architecture, especially in terms of touch. They understood how the body was carrying the space, and in return how the space carried the body. Students also said that earlier misconceptions of using the body in architecture seen as dangerous and overtly emotional were dissipated. They connected the use of the body to a re-valuing of space and one's internal perceptions of it.

Intervention 3: A Summer of Butoh training

This intervention compliments the Butoh practice done in previous exercises but in this case I take on the role of participant. The individual practice proved very important in taking an activated role in the embodied research further, not as an observant of the practice but rather as practitioner and performer. What came through most in my training, was the feeling of vulnerability both in the body and of the space. This increased sense of vulnerability gave an understanding of space from a completely different perspective and strengthened reflective spatial practice to have knowledge-generating capacity.

In embodied research, it is important to take on all roles; as producer, participant, performer and observer/audience. In terms of agency, the shift from each role gives further insight into the embodied method and the impact of agential shift from user to actant. I also experienced how exhausting Butoh practice is, and therefore, how the body becomes when it is using all the senses to navigate through space. The experience of this individual training had a large influence on the production of the body weather exercises.

Initial post-discussion

The role of making space is an important parameter to consider on as we enter the theoretical neighbourhoods of Alba. The interventions were about embodied knowledge practices on how the body can be used to navigate and know spatiality, and had given me particular insight into this corporeal potential that could not have been known given only the observation work. In many exercises the body was brought into the landscape and in turn, the body internalised the landscape. A relation was set up that extended into a somatic memory, and time was no longer linear.

Embodied modes such as mimicry, sensorial awareness, enactment, performance, trust, endurance started to emerge as reoccurring in each intervention. Geographer Sarah Whatmore (2002, p. 119) with her interpretation of Merleau-Ponty's and Michel Serres' phenomenological insights looks into the body and the world in terms of a corporeality, as the exercises have

explored, and embraces their intermingling and folding into one another. This intermingling is extended not only into the being body, but also into the acting and doing body which is in a constant state of becoming. One of the important spatial learnings from Butoh is into place attachment, a recognition and obligation that enters inside the body. The dynamic relations that come about from the body work have the potential for an attachment that goes beyond a daily routine and conventional scientific observation. The Butoh body becomes the place, it amplifies this attachment by the deep awareness and reflection through the immersions. The space is no longer a place, it has a time, a character, it has agency. In this attachment, there is room for a deep commitment.

I want to return to a quote from Carolan (2009) in which he emphasizes that experience and bodily practice necessitate linking, that what we sense whether through seeing, hearing, smelling, tasting or touching, is shaped by our doings. Butoh illustrates this condition when the hierarchical experience of sight is removed, we rely more on other senses to bring in information about the space. Bringing in this sensuous kinship with spatial and natural materiality is the experiential task of making an environmental embodied. These experiences need to leak into collective spaces to offer other fictions to live by in urban space. Offering such embodiments to be shared with other bodies – human and nonhuman – is crucial. To act in this way – on behalf of others – or in congruence with others is a relationscape that builds on Petrescu (2012) and Manning (2009). The role of the expert is to create the conditions and experiences by which these immersions can occur – whether it is a spatial condition, a pedagogic condition or an activity.

There is a potential in Butoh practice about the state it renders the participant in. It can change the way architects conceptualise space after the in-depth situated knowledge gained from embodied immersion. It may change the way inhabitants appropriate space as a result. For instance, through the Butoh practice there might emerge a certain empathy for a site that calls for specific action. Butoh brings vulnerability to the space and to the body, along with empathy through the acute awareness that comes from the practice. Empathy is an important dynamic of space. This is what an ecological ethos is, it puts us on level ground to create a kinship with the surroundings – near and far.

As an architect, it was interesting to see how unused the senses were. This became clear when both participants and myself remarked on how exhausted we felt after the exercises given the levels of sensorial input. A lack of senses is not only evident in navigating through space but also when we design or think about the making of space. Hence, the insights we get into our own bodies through butoh is crucial to spatial practice. Butoh gives a more sensible, dynamic and critical engagement with space. It aids in generating a trust of the relational materialities with that space. The experience of these materialities through the interventions gave a strong sense of the potential to understand matter, whether built or natural. Materials no longer became static. Some connected to time. The wet leaves on the ground alluded to Autumn, a change of season, and the winter ahead. The garbage on the floor alluded to a miss-care, to issues with waste in

the city. Matter became an actant. Material became experience. What would happen if a design process was to happen after a workshop of this kind?

Bennett leans on tactility as an important mode to experience thing-power. In exercises such as mimicking a large ear or a stone, produced an alternate lived and tangible experience of the space which both Haila (1997) and Carolan (2007) suggest can reduce the epistemological gap between nature and culture. The gap is between awareness and action. Butoh resolves this, in essence the awareness and the action goes hand-in-hand and I would say that the action even precedes the awareness. It carries another type of awareness that is embedded in experience and situatedness.

We have seen that in every intervention there has been an awareness of the space to nature to body connect. Space impacts on the body. That impact can be or can do something with the body. The body is shaped by space, it has a tacit choreography and negotiation with the space. The space gently encourages the body on movement and behaviour. The body in Butoh helps in listening to this underbelly of the space. A bodily atmosphere. This input can be utilised to choreograph empathetic urban-making that connects to the notion of environmental ethos.

Intermission

A letter from Alba

February 3, 2013

Dear Deer,

Yesterday morning we arrived to the Island of Encounters and made our way from the harbour to our first encounter city - Alba. It took the whole day of tracing the winding roads through the mountains until we arrived. As we came upon Alba in the early morning, we stopped to gather the horizon. There was a thick layer of fog over the city, and for an instant I thought I saw you standing on the edge of the city waiting for me. Your white skinned body dissolving against the backdrop of the foggy white atmosphere. It was difficult to distinguish what was your body and where was the space around you. It is similar to what I have learned from Butoh practice, where a body blurs into space. I too needed to exaggerate all my senses to move through this fog. But alas, it was not you but the shining dawn of Alba - Michael Serres calls it 'Alba the white'.

*When you arrive in Alba you are greeted straight away by your Butoh host. The terrain in Alba is very difficult to traverse and visitors to the town must be prepared on how to use their body. My Butoh instructor gives me a synopsis of Butoh. She tells me how Butoh is a body nature that I can access anytime I wish, especially when I am in search of some nature in the city. It will help me to become fully sensitized to any given space where I want to make a transformative gesture. She instructs me how to move. As I am accustomed to move from the chest, I find it difficult at first to move from my hips. Many residents in Alba keep their egos at bay. Another thing I learned is that time isn't time in Alba like I know time. Here, time is an in-between, and there is always a dawn of opportunity for beginning. They call it *ma time*. And lastly, she informs me that everyone speaks in metaphors. Therefore, in order to understand the place you must enact the place, spilling yourself into it.*

Alba only has two neighbourhoods, but one of them is quite large. When you first enter Embodied Prism, you become quite affected by its many affordances. The action possibilities may make you want to do things immediately, but stay calm and reflect why. All these affordances are a way for gathering place attachment and an environmental identity. Embodied Prism has several suburbs. The first road leads to the suburb of the Experiencing and Sensing Body. Experiencing Body is a long road with a transition from a representational to a functioning body. In this place you are asked to become a doing body. Parallel to this is the sensing body. I am told they are next to each other as they very much rely on one another. Movement through these spaces is a very

joyful and empowering event. I can ground myself and unearth the capacity to think and reflect as I traverse the space. Walking almost becomes a form of relational architecture and I learn how to make relations with the space that keep giving me new bodily situations.

I had spent too much time in the Experiencing Body so I had to hurry on to the other neighbourhood, Orientation. This area is not as easy to access as it seems. You have to be critically reflective, you have to be situated, you have to be lost and disorientated so that you can find your way back. You have to know where and who to face. Perspective is necessary in response to the world around.

And then, I arrived right back to the place I started in the Direction of Care.

I am now committed to the direction I face towards. I know that all this body work has prepared me for the journey ahead.

I wish you it had been you standing in the fog when I arrived, we could have learned together that the body was vital for moving away from the Anthropocene. Early tomorrow I leave for the my next encounter with Agora, where I hear there are many stories to be heard.

From dawn,

Yours,

Anna Maria Orrù

ps: My research travel notes are accompanying my letter. I enclose a small booklet on Butoh I received from my guide, called 'Digest 06: Butoh meets Architecture.'

Theoretical neighbourhoods

A synopsis of Butoh choreography

The research task is now to explore the ecological ethos through the embodied methodology. The intention is to let the artistic work into Butoh link to the theoretical underpinnings. Hence, what role can Butoh play? The aim with Butoh is to find deepened forms of enquiry for ecological urban-making and in understanding how the body can be utilised as a medium for this. I have gathered preliminary thoughts from the interventions in the previous section but here I want to emphasize the practice with theoretical supports. The Butoh immersions have enhanced notions of the urban as becoming a natural environment for the human body. For some bodies, the urban is their everyday nature. The exercises for discovering and internalizing this has overlapping modes: mimicry, using the senses, psycho-physical imagining, etc. The feedback after the interventions brought to light that the space after the practice had transformed Butoh (Workshop Questionnaire 2014.). Through Butoh there is the opportunity to bring the underlying assemblage of vibrant matter to the surface by enacting nonhuman bodies which are usually passed by unnoticed..

In my literature studies, practice and gradual understanding, I have come to have the following interpretation of Butoh:

- Trained by and through Nature's properties
- Uses all the senses, as visual is often cut out
- Motor of movement is from the hips, knees are bent, limbs are loose and hanging
- Painted white, erasing the social body, negating the ego
- Time is considered a movement and materiality, it is not linear
- Butoh is given as a metaphoric instruction used for mimicry

Before delving further into Butoh as a medium, it is important to situate the dance practice. The founders of the Butoh were Ohno Kazuo (1906-2010) and Hijikata Tatsumi (1928-1986).

Tatsumi began exploring contemporary dance in a turbulent historical period and transition for Japan when the Asia Pacific war (1941-1945) sparked a strong nationalistic environment that led to unprecedented economic growth, resulting in protests and consumerism for the following decades. During this period, Japan was thrown into the wave of modernization and struggled with a crisis of identity in a rapidly changing culture, wedged between the contemporary and the archaic. This struggle for identity occurred across all the arts, including architecture. Hence, Butoh was an expression that came out of these shifts in Japan (Reynolds 2015). It is seen as a contemporary dance form rooted in Japan's experimentation with expressionistic movement.

Butoh is a body practice with an aim to become aware of the bodily engagement with space by practising to develop a state of high alertness and reflection for a different type of manoeuvring through a space. In Butoh, the novel learner must often be blindfolded to remove their hierarchic sense of vision, which induces a reliance on using all other senses to navigate through space. Butoh dynamism is not about speed – it is a slow medium to explore an alternate understanding of space through the body. In my initial practice with Frauke, I experienced an awkward reshuffling of senses; I could hear with my touch, I could smell with my hands. Perception gets significantly altered through Butoh, especially after continued practice. My practice with Frauke lasted only a day, but afterwards the bodily exhaustion from the sensorial exposure and overload sent me to sleep for the remainder of the day and night. It was an overwhelming experience and an insight into how we under-use senses besides vision.

There is a strong link between Butoh and nature. First nature is used as a metaphorical device in training, and second, Butoh is most often trained in nature of some kind. For example, on the Body Weather farm, Min Tanaka trains the practice through rice paddy farming. Nigel Thrift (2000, p. 35) associates feeling of and commitment to 'nature' as an entity to set up, he states that, 'Immersive body practices account for a large part of what we attend to as 'nature'; they define much of what we cleave to as a 'natural' experience by setting up a background of expectation.' Butoh as a medium for exploring processes in urban-making can form new embodied processes during design or conceptual stages. Lister and Nemeskeri (2010, p. 105) highlight that when it comes to forming new mediums there is a correlation between the development of a particular methodology, be it a tool, process or application, that at the same time shapes and develops perceptions. This is important to consider because in crafting perceptions, there is an opening to consider ecological ethos alongside as part of the medium's operation.

The Butoh body's prime motor of movement is at the hips not with the chest. The ambition of Butoh is to activate the voids around the body and thereby seeking to know the world through the body. The dancer must therefore erase their social body to become a vessel for crafting all kinds of relations with the surrounding space. Nature becomes the strongest material property to work with; for instance, a relation must ensure with the rocks, trees, soil, bacteria, birds and sky. For interior spaces, a dancer can choose to relate with the wall, floor, light and temperature. To clear the ego, the Butoh dancer paints the body white. This gesture allocates a clear canvas

for a relation to take place, and for the social condition to be erased. The body now relies only on its own limbs and senses to navigate and 'dance' with space. Dancer Akaji Maro states: 'You have to kill your body to construct a body as a larger fiction. And you can be free at that moment' (Bergmark 1991). Emptying the space of the social body allows for external signals from relations to enter in. When this body is erased and juxtaposed inside a narrative, it needs support from something that lives inside it (ibid).

Butoh itself has a special relation to time, it is time in the moment but also it is all of time. It is a time in between time. It can work in a time interval called *ma* in which there is potential for a metamorphosis to occur (see further in chapter for more detail). *Ma* is an in-between time that is full of potential. A conversation between Suzuki Tadashi and Hijikata Tatsumi reveals *ma* as being integral in Butoh, allowing the body to experience a concept. Suzuki states,

'On the whole, using the body for expression means there's a gap. There's a gap between the body and words and also a considerable gap between the body and space. And quite a wind blows between them. So you fill that gap with concepts and a desire to analyse. But the first time I saw Mr. Hijikata's butoh, I had the feeling that here was a space where there was no need to kill time like that' (Akihiko et al., 2000, p. 62).

Butoh arranges for *ma*, just as it allows for a reflection and metamorphosis to take place. As a result, the space becomes the prime agent in forming the relation to the body and its movement which responds to the site. In urban making, this brings an opportunity about particular details of approaching the agency of space itself. In essence, the space choreographs the performance rather than the dancers (bodies) themselves. There is an intense exchange of situated knowledge transpiring because the body must respond to the site's will. These situated, reflective and generative forms belong to critical feminist spatial practice. Bruce Baird (2012, p. 179) elaborates on this exchange from his observations of Hijikata's methods, 'He sought to dissolve the strong distinction between the inside and outside of the body – to render the body more receptive to what was outside it' (Baird 2012, p. 179). Choreographer Lorna Marshall illustrates this responsiveness further via the senses,

'We receive all our incoming information about the world via the body's sense organs; through our eyes, ears, skin, nose, and tongue. It is a two-way process; from the world through our physical senses to our inner landscape, and then from our reactions and thoughts back into the world through physical action. And the body stands at the centre of this constant exchange. It is the interface between our inner life (thoughts, feelings, memory, dreams) and the outside world (other people, objects, the physical environment). In a sense, it is the sole mediator of human experience' (Marshall 2001, p. xii).

A responsive and sensitized body is more prepared in gathering knowledge about a particular place where what was not noticeable before, emerges through the experience of contact. For an urban conceptual processes, this is an important approach to the understanding of a space

in terms of all the heterogeneous components and bodies that fly under the discoveries of normative cartography. A Butoh position comes from a simple 'instruction' commonly assigned as a metaphor. An instruction may include a physical directive (e.g. a cow with left leg raised), a tone or quality (e.g. softness from below), a movement or posture (e.g. float), an indirect and abstract instruction (e.g. infinitely transparent), a mood (e.g. feeling of light or ethereality), and/or a dispersed direction (e.g. from a bird's eye view) (Baird, 2012). The choreographed aesthetic of the instruction is decided by the 'dancer.' In linking a similar 'instruction' in urban space, we could consider a foodscape site as a site artefact that could give direction to urban living. Sarah Ahmed (2006, p. 16) writes that,

'When you tell someone who is lost how to find their way, you give them directions to help them on their way. When you give an order or an instruction (especially a set of instructions guiding the use of equipment) you give directions. Directions are instructions about "where," but they are also about "how" and "what": directions take us somewhere by the very requirement that we follow a line that is drawn in advance.'

Butoh practice can expose this directive. By using dynamic metaphors for movement, an awareness emerges about possible ways for alternate forms of ethos towards nature. Choreography, as a word by itself conjures up a notion of an instructive script for a dance. Butoh is a method to explore embodied scripts for movement that induce a corporeal knowing and transference. In his training, Hijikata used surrealistic poems reflecting the world around him and gave his choreography directive from them. For him, the body was a metaphor for words and words are a metaphor for the body (Nanako 2000). In an interview conducted by Margit Tamas in 2000 with choreographer Ron Bunzle, he states, 'dancing is a physical activity where there is consciousness of how you break up time and space' (Havadi 2010, p. 340). Butoh practice enters a slowed time by a slow progression through space. In some of the movement exercises where slowness was a key form of silencing and sensitizing the body, time stood still and the landscape rushed in as a measure instead. This cross between body, time and space is important to consider. The in-between time allows for imagination and curiosity to enter and for transformation to happen.

The Butoh dance is instructed and site-specific, allowing place to be danced. Its foundations are intensity, spontaneity, emergence, rhythm and a space-to-body connect. Founders Hijikata and Ohno established unique methods to generate a movement vocabulary; a layered negotiation with time, space, body and nature. In my investigation and deepened readings into Butoh, I could establish six statures relevant for my research methodologies into urban-making (Baird 2012, Orrù 2015b). They are:

- Corporeal Rebellion – A resistance to authority and established convention. In essence, the Butoh body aims 'to free itself.' It is a resistance to an overload of information and mass production. This corporeal rebellion could also be viewed as an act against normative urban behaviour and design strategies, and a way to negotiate space with an increased consciousness. The practice of using artistic modes in architecture is a rebellion because it brings to light inconsistencies, marginalisations, and the 'otherness' of spatial matters. In rebellion, new forms of making, doing and composing can be found.

- Elements of Interaction – One element is a form of a body language used to converse between site and body. Another element, extends to the interaction between dancer and observer. A third element, is the metaphorical perspective of the dancer during the performance: it can be taken from within, aside, or from a bird’s eye view (metabolic, physical, systematic). For urban-making, all three interactions contribute to the formation of vibrant relationscapes.
- Agricultural Roots – Butoh has roots in gardening as a method in its origins and in its practice. These beginnings have remained in Butoh’s close relationship of being trained in and with nature. Since 1978, Japanese Butoh dancer Min Tanaka instructs Butoh in a rice paddy field through the act of farming. His farm is called ‘Body Weather farm’ and has come to signify his particular form of Butoh practice.
- Mimesis and metaphor – Hijikata’s earlier dances were mimetic narrative performances (ibid). He often used words and metaphors to create a character and narrative-based dance. In my research, mimesis strongly strengthens the link to imagination and biomimicry. Metaphor exercises in urban practice give a vital sensitivity to space which could be utilized in development and conceptual stages.
- Transformation and Metamorphosis – Butoh method defines a state of embodiment, emergence and change with permeable boundaries. Fraleigh and Nakamura (2006, p. 13) emphasize that ‘Butoh metamorphosis or the body that becomes.’ Morphing, melting figures permeate butoh. Their meaning is not literal, but ongoing and open to interpretation.’ There is a sense that both the body and the space are fluid and in constant relating. Conceiving space in this manner has potential to envision urban forms and living as a non-static entity; flexible, conscious, resilient and adaptable.
- Reflection – The Butoh body offers reflection psychologically and physically brought about by its spatial contact, as a technique used for coping with the volume of information. Baird states that Butoh dancers can ‘practice the skill of organising and coping with the volume of information and stimuli that the urban space provides’ (Baird 2012, p. 182). Baird and Hijikata see Butoh artists coping with and responding to, ‘worlds of increasing but incomplete information and information of varying strengths by developing ways to be attentive to all sides of an interaction and also as developing ways to cope with either an overload or lack of information’ (ibid, p. 3). Such moments entail a reflection, a pause and a coherent filtering of information in order to move onto the next stage. Creating the potential for choice, value-building and ethical manoeuvring, this form from Butoh can help to cope and deal with the complexity of challenges associated with the urban environment.

Urban-making through Butoh could absorb knowledges for constructing and enacting corporeal tensions, and incite environmental time constructs and associations, to incite environmental behaviour. The importance here is not the specific solution, but rather the learned

body that emerges in the process of exploring a space in this manner as a deep knowing of the body to space to time relation, involving senso-motoric skill with its complex nerve systems stemming from the brain and spine. This intricate system regulates body's status with surrounding environmental conditions but also gives us the capacity to create spatial correspondences with imagined scenarios, spaces and landscapes. This links to the ensuing encounters with fiction, imagination and performance which are taken up in the next chapter in *Agora*.

An embodied prism

Situated and entangled affordances

In the reader, *The Body in Architecture*, architectural theorist Deborah Hauptmann (2006, p. 10) attests the use of the body in architecture as being not only formative but transformative as well, both practically and theoretically. The way in which we conceive the world creates a frame and mode of behaviour and our reasoning, desires and knowledge all belong to the realm of corporeal affects. If what the body does is connected to reason and what we know, and vice versa, then approaching the matter of environmental behaviour certainly must include the body. Donna Haraway's (1988, p. 585) argument for a situated and embodied knowledge is crucial in this approach. She calls for a 'doctrine and practice of objectivity that privileges contestation, deconstruction, passionate construction, webbed connections, and hope for transformation of systems of knowledge and ways of seeing.' This means a turning away from dichotomies of body and space, human and nonhuman, urban and rural, nature and city to see their inherent complexity of webbed accounts, multiple knowledges, heteroglossia and ethnophilosophies. Haraway furthermore (ibid, p. 589) argues for a knowledge that is entangled and emerging, 'I am arguing for the view from a body, always a complex, contradictory, structuring, and structured body, versus the view from above, from nowhere, from simplicity.' From this perspective, we can make an assumption about the *Butoh* practice which aims to ground the body precisely in such a situated manner using all the senses available. In this grounded state there is the opportunity to claim and prolong curiosity. The negotiation set up in the first two chapters about body, space and food is an ongoing backdrop which develops the reasoning and meaning for this curiosity. Lakoff and Johnson (1999, p. 3-4) refer to this creative negotiation as reason. They say, 'Reason includes not only our capacity for logical inference, but also our ability to conduct inquiry, to solve problems, to evaluate, to criticize, to deliberate about how we should act, and to reach an understanding of ourselves, other people, and the world.' Therefore, the body used as an inquiring entity in the research has the potential to explore the embodied affordances and situated knowledges that exist when we come in contact with certain spaces, in this instance spaces pertaining to foodscapes because of their capability to reason. In these encounters, the body becomes an engaging and agential being. The "body" is itself an actant, an "activated" prism of knowledge, it is a field of meaning and potential and no longer a resource (Haraway 1988, p. 594-596).

In this discourse between embodied nature and the body, there exists a potential array of 'doings' that afford the body to have an understanding of nature (Carolan 2009). Affordance, a terminology used in environmental psychology and perceptual psychology, was developed by psychologist James J. Gibson in 1977. Gibson regarded affordance as "action possibilities" that are present but not yet manifested in the environment. These possibilities, recognizable and measurable by the body, are based on the agent's capability to understand how to act within that environment. Carolan (2007) encourages place attachment and ecological identities to approach environmental challenges based on matters of care. If a potential aim in environmental behaviour is to instigate an embodied approach *to, with* and *for* nature – an embodied nature – then the relation-making between a body and its space is critical. I refer to this relation-making as an ongoing dialogue which takes place tacitly between a body and its space, and Butoh methodology is a methodological approach to de-construct and explore this discourse. This dialogue can also be interpreted as 'affect', an important theoretical concept throughout the research underpinnings and practice (see chapter 4 for an elaboration on affect). Brian Massumi defines affect as 'being right where you are more intensely' (Massumi 2016, p. 3). Affect is a two-way conversation almost spoken at the same time, as in the moment you are being affected, there is affecting coming from you as well. Wesseling brings in the body and builds on Massumi's definition by adding that 'Affect is thinking bodily, accompanied by a "sense of vitality or vivacity, a sense of being more alive"' (in double quotes Massumi cited in Wesseling 2016, p.30). In line with affect, Carolan views the environment not as a resource giver but rather as a manifestation of affordances and potential to viewing the space in a different way that develops a greater understandings of ourselves, of others and of the environment. Therefore, our attitudes to nature are entangled with our experiences of it and with it, and Butoh can play an important role in creating environmental identities in urban spaces. Embodied methodologies begin to bring to light another form of agency for the architectural practitioner. When mimicking the nature, I understand that I am it, and it is inside me. Nature is not on the outside. I am attached to it in another way. To become aware is a crucial first step, but to construct a rational and emotive attachment, understanding, commitment and logic to urban nature is another spectrum of challenges which necessitates a form of dynamic and activated embedding that can be found through Butoh practice. By establishing the body as a qualified medium for urban-making, there is potential to assemble spatial relations through movement as a mode of practice, reflection, learning, connection, commitment and engagement.

Body and city

One of the dilemmas of writing about the body is that it becomes a too fixed body which is not the intention of Butoh nor my approach to it. Critical theorist Elizabeth Grosz's writing on the body and city have helped me to keep a permeable body. She has long been concerned with the relation between body and space, aware of the significant contextual formation that cities have on the body, but knowingly that this is very complex.

‘By “body” I understand a concrete, material, animate organization of flesh, organs, nerves, and skeletal structure, which are given a unity, cohesiveness, and form through the psychical and social inscription of the body’s surface. The body is, so to speak, organically, biologically “incomplete”; it is indeterminate, amorphous, a series of uncoordinated potentialities that require social triggering, ordering, and long-term “administration.” The body becomes a human body, a body that coincides with the “shape” and space of a psyche, a body that defines the limits of experience and subjectivity only through the intervention of the (m)other and, ultimately, the Other (the language- and rule-governed social order) [...]

By “city;’ I understand a complex and interactive network that links together, often in an unintegrated and ad hoc way, a number of disparate social activities, processes, relations, with a number of architectural, geographical, civic, and public relations. (Grosz 1995, p. 104-105).

We have established in the first two chapters how different terms of condition are needed in the way that the discipline of architecture understands space and spatiality in order to rethink the relation between humans, nonhumans and nature. In Grosz’s scenario of thinking, the body relies on the city as does the city on the body. She refers to this concept of city in terms of the body when she illustrates that, ‘Space is the ongoing possibility of a different inhabitation. The more one disinvests one’s own body from that space, the less able one is to effectively inhabit that space as one’s own’ (Grosz 2001, p. 9). In borrowing from queer theory, what is the potential for applying this open and fluid potential to urban-making for green spaces? Spaces as a form of identity and expression, that allow for a certain form of behaviour, even asking for it. Spaces that energize, that are dynamic, and ones, in my view, that ask the body to be included as an active force in crafting these spaces.

Grosz criticises models where the interrelation between body and city are confined into one-way relationships and representations. In instances of one-way modes, the body is seen as a cause and the city as an effect. In this model, humans make cities, and thus the city is a reflection of the human consciousness. The body in this configuration is seen merely as a tool incapable of having any sort of agential capacity of its own. Moreover, the space is also seen as having no agency whatsoever. Such approaches to urbanism can be avoided merely by forming different relational ways of doing architecture seen most often in feminist spatial practice. An example can be seen in the relational practices of Petrescu’s aaa studio in Paris. The second criticism is about the body as being only representational, for instance a body which is parallel to the state. It is in this body politics that an opposing relation is created between nature and culture, one in which culture exerts itself on nature. One way to avoid this is to return to Haila (1997) in chapter 2 where he illustrates the entangled interface between nature and culture. To use this perspective may help in eliminating a body politics in which the dominant capacity is only held by humans, or architects. It returns again to a practice that must include all bodies in being represented, involved and acting. Therefore, based on the above criticism, if the relation between

body and city is neither causal nor representational, what can it be? Grosz suggests that it is a combination of both elements. When it comes to the causal view she maintains that 'the body must be considered active in the production and transformation of the city' (Grosz 1995, p. 108). In terms of the representational, the body and city could have corresponding forms and relations through exchanging linkages as opposed to one-way. She is suggesting that both body and city should not be approached as singular monolithic entities, but rather as entangled assemblages that are gathered together in heterogeneous relations and processes with one another (ibid). This brings also a different form of 'lived spatiality.' She writes that,

'different forms of lived spatiality (the verticality of the city, as opposed to the horizontality of the landscape-at least our own) must have effects on the ways we live space and thus on our corporeal alignments, comportment, and orientations. It also affects the subject's forms of corporeal exertion-the kind of terrain it must negotiate day-by-day, the effect this has on its muscular structure, its nutritional context, providing the most elementary forms of material support and sustenance for the body [...] the place where the body is representationally reexplored, transformed, contested, reinscribed. In turn, the body (as cultural product) transforms, reinscribes the urban landscape according to its changing (demographic) needs, extending the limits of the city ever towards the countryside that borders it' (Grosz 1995, p. 108-109).

In this view, the urban space is not innocent at all and produces effects on the body in several ways. Grosz lists several ways in which the city can exert itself on the body; by the sensorial and perceptual information given by space, by the way city organizes relations (public, private, sexual etc.), by layout and structure directing accessibility (information, goods, services etc.), by form and structure producing and circulating power that maintains conformity, assimilation, marginality (Grosz 1995, p. 109). In such dominant capacities of space on the body, no wonder architecture is a precarious and influential discipline requiring an enormous amount of empathy and careful navigation. I believe that given this positioning, the body requires all the more agency it can receive. And in order for architectural thinking to intersect this capacity, it must include embodied methods in conceptualising and making spaces.

Given all this, it should be said that we can never be sure what the body is, or what it is capable of doing, and its limits and capabilities (Grosz 2001, p. 28). A body is beyond a representation, it is outside of thought, but it is thinkable and imaginable. We can think about it, explore it, be aware of it and develop knowledge practices to learn from it. A body is functional in the process of thinking about space and Butoh has illustrated this facility. It is therefore critical that the body is considered and included in the process of urban-making and conceptualisation. The research and practice put forward in this chapter, and the following three encounters, offer ways in which to start exploring what this corporeality can be in spatial practices, what corporeality gives and also what space does for corporeality.

Towards an experiencing body

Hauptmann's collected literature on the body examines various conceptions of body and space through time (ed. Hauptmann 2006). My intention is not to account a historical analysis of the body's urban history, but it is crucial to briefly contextualize in order to see how we arrived at the embodied body. I have chosen to mention only a limited few that pertain to the relation between body, space, empowerment, and embodiment.

Patrick Healy (2010) looks into the historical concept of the 'Vitruvius' body – *corpus architecturae* – and its role in constructing a powerful empire. Vitruvius's power-filled and dictatorship body is spatial-making. In the Renaissance period, this body changes into a more humanist body linked to cosmology, idealising proportions and symbols; gradually taken over by the mannerist body, dismembered and dislocated, de-constructed and fragmented. In late 19th century, through the rise of psychology and psychoanalysis, a modernist body overtakes the humanist. This body was assembled through mental properties, more than physical, and becomes known as the body of psychophysical space (Vidler 2010, p. 132). The importance of these various gradients of body is the shift in depiction. The shift occurs from a representational body to a functional body. The representational body is symbolic, whether of power or religion, it was seen from the external vantage point. The functional body is the body that performs, a body that thinks and does for itself, through learned mental progression connected to the physical realm.

But how could a body be conceived of now given the qualms of urbanism? Grosz has helped to answer some of these questions, as has the Butoh practice, but I would like to speak about a part of the contemporary body that has become a consuming body. To contemplate this body, I would like to address the challenges of capitalism discussed in chapter 2 not only through the lens of consumerism but through how this body is identified also as a product itself. For instance, consider the tattooed or pierced body as a form of modern body art, an embodied performance of sorts. I use the example of body art because it profoundly becomes part of the bodily surface, engraved on the skin surface. In this bodily exhibit, the identified body can be culture-less and placeless because it can occur anywhere in the world. It is ubiquitous. This contemporary body can be perceived as a floating body without anchor. A body that can be numerously replicated, ideal for capitalism to put a stamp, and render it with a purchasable identity. Grosz (1995, p. 2) asserts that consumerist bodies, 'never questioned the body's status as an object (of reflection, intervention, training, or remaking), never even considered the possibility that the body could be understood as subject, agent, or activity.' She alludes that the same approach occurred during the historical shift in urbanisation because with the change in the living environment, the nature of the body also occurred in the section on body and city. My aim is to reorientate the consumerist body and space, and provide a situated, embodied and poethical relation through bodying in urban-making. This plays a key role in providing spaces that align such potentials for experiencing, for stitching body together with nature and space recognizes other affordances

that rely on environmental behaviour, not consumerism. Doina Petrescu and Kim Trogal define this as the social (re)production of architecture in which ‘the aspects of architecture that become important are not the ones of form, surface, style or even structure, but rather demand working upon ecological, economic, collaborative and processual aspects of making space’ (Petrescu & Trogal 2017, p. 4). Such a practice is relational which requires sensitive embodied approaches and collective forms that produce different values in the city besides consuming. Urban gardening has become one way in which to take on this task as it gives the body an ‘otherness’ in the urban fabric not only by its ‘doing’ but also through its becoming and identity-making. I am aware though that urban gardening should also be approached with a critical eye, and I don’t want to glorify it as the holy grail of urban-making (though I believe it to be the bees knees). Urban-gardening especially in the Global South comes with a different set of purposes compared to the Global North. Garden sites, or more specifically, local food movements can also produce alternate modes of consumerism that marginalize participants based on their wealth accessibility (Delind 2006) as well as forms of neoliberalism that undermine its transformative potential (McClintock 2014) if they do not take into account their collective capacity and complexity. Furthermore, garden sites also hold a radical history as sites of protest and counter culture, but in some instances too much tension and an ugly history if you consider the kitchen gardens of the Nazi period in Dachau and Auschwitz (McKay 2011).

The aim is to become *experiencing* bodies, conscious of place and its acting upon it. This experiencing body has potential to provide an anchor in the world that can ground us through its very own soil. In this case, an identity becomes an action and no longer a product armour. The embedded knowledge from this experience is not a product, it becomes situated, and therefore behaviour itself is not something produced but rather experienced. Furthermore, commitment to ecological challenges is no longer a borrowed mode of behaving but rather a transparent and situated act – it becomes embodied. The urban body can reconstruct itself *with* and *in* space through the act of ‘doing’ and ‘becoming’ in nature; aware, reflective and dynamic. In the act of hands immersed in soil, the understanding of food resource challenges has capacity to become an embodied awareness. Through Butoh practice, the knowing-with becomes transparent and consciously experienced given its ability to activate all the senses to work alongside space.

The next step is to turn to the senses, the organoleptics, as a mediating field of method and exploration. Anthropologist Steven Feld (2005, p. 179) assists in this leap, ‘as place is sensed, senses are placed; as places make sense, senses make place.’

The sens(e)ing and moving body

Initial research looked to develop an understanding of the senses as embodied responses and contributing ingredients to urban-making. Klaus Dürschmid (2011, p. 196) describes the critical aspect of using the senses in space perception,

‘The dimensions of space and therefore the geometrical layout of the environment are

not only perceived with the visual system, but we use that auditory system, sense of balance, the nasal trigeminal, the olfactory and the tactile senses for that purpose as well. Nasal trigeminal and the olfactory stimuli are used for means of orientation, since we are able to smell the direction of irritants and odours just as we can judge the geometry of an environment or the position of a sound-emitting object using the auditory system. All of the sensory systems of space perception allow the brain to construct a virtual model of our environment.’

Such an assembled model of the environment has potential to create transformative behaviour, depending on the impression of the situated immersion. Kathleen Stewart (2010, p. 448) explains that ‘senses sharpen on the surfaces of things taking form. They pick up texture and density as they move in and through bodies and spaces, rhythms and tempi, possibilities likely or not. They establish trajectories that shroud and punctuate the significance of sounds, textures, and movements.’ Butoh is a method that has allowed these impressions enter deep into the body. The practice occurs from the inside out, but also taking the outside in depending on the exercise as seen in the interventions from the previous section. Butoh is a continuous signalling in and out. The practice allows the body to link to landscape. Wherever this landscape is, it is connected to nature. As seen in the exercises, Butoh practice can also become a cartographic medium for an embodied understanding of space, not only as a choreography.

Humans move in order to find food, but the potential in reshaping urban green spaces is about *moving* food closer to us and in some way finding a closer relationship to *move* us to have a different relation with food and with urban nature. It is a movement in habit and a shift in how we perceive nature in the urban space. It is not sufficient just to make static green spaces, as there is an opportunity to create direct engagement with these spaces rendering embodied and engaged bodies in the urban realm. I wrote earlier that the agency in architecture is to encourage such approaches to urban-making. Ethics in design could be taken up in the same vivacious manner as movement has been.

When creating movement, an instruction is needed – a protocol, a guide, a choreography. This instruction can be given by a place in which the movement takes place, such as in Butoh where choreography movements are instructed by the space, linking gesture to spatial properties. Butoh practice considers the entire body as a knowledge generator, a vital component and cohort to cartography. Traversing a landscape using the body is a recognised concept in the artistic world. Artist Hamish Fulton and architect Francesco Careri are practitioners that evoke experiences of the environment through the use of walking as prime mediums and therefore we invited them to the first AHA festival on the thematic embodiment. Both practitioners work in diverse ways to instigate change; socially and ecologically. Hamish Fulton’s ‘walks’ are commonly done alone and for long periods of time, and the situated knowledge gained from his excursions has a rich level of detail that can only be reached through deep and long periods of immersion. Therefore, personal and intimate experience of walking should also be carefully considered as it is a further extension of our identity and how we navigate the world. On the other hand,

Francesco Careri's walks, under the platform Stalkers, take on a different approach.¹ Careri walks to the places of emotion, the places where nobody goes or even knows about. Careri's walking modes are about going to places in the city that are most often 'avoided', the 'other' places and the 'in-between'. And through rendering these places visible, he is able to open up to larger audiences for immersion and involvement.² The research encounters also aim to open up for diverse forms of audience participation and to assemble bodies in different constructs, finding openings to create reflective engagement. On a summer day, I met with Careri in Rome at the Mattatoio di Testaccio at the Città dell'Altra Economia, an ex-slaughter market converted into a new bustling ecological market and urban haven for learning about ecological city living. The aim was to see this urban intervention as place, but more so to see Careri's collaboration with the Kurdish community adjacent to the market. Through his collaborative mapping and walking experiments over the past years, he has helped initiate an informal Kurdish community centre that provides housing and a kitchen garden.

Tim Ingold (2010, p. 121) specifies that traversing a site leaves traces and is a form of making space and forming wisdom as a mode of grounding. Hence movement and grounding go hand in hand. Grounding, and the ground itself, is a generous undertaking: 'Far from being uniform, homogeneous, and pre-prepared, the ground is variegated, composite, and undergoes continuous generation. Moreover, it is apprehended in movement rather than from fixed points' (ibid). In movement, engaged bodies have the greatest capacity for thinking and reflecting. The exercises build up from this approach. As seen with the artistic practice examples of Fulton and Careri, modes of movement blur borders, more specifically 'Walking blurs the borders between the arts, between artist and audience. The situationists imagined a total art that resembled architecture and was experienced by drifting. Walking structures experience. We perceive ourselves and our environment in interaction as we move along the path. We shape space as we go. Walking may be a form of architecture' (O'Rourke 2013, p. 43). Embodied research methods can re-aquaint and re-orientate the relations and agencies formed with space that produce new bodily situations. A body has an affective atmosphere as it can make visible the intentions and atmospheres vibrant with heterogeneous matter in which we wish to participate. To support this, in her writings on affect, Kathleen Stewart (2010, p. 452) affirms that,

'An atmosphere is not an inert context but a force field in which people find themselves. It is not an effect of other forces but a lived affective capacity to affect and to be affected that pushes a present into a composition, an expressivity, the sense of potentiality and event. It is an attunement of the senses, of labors, and imaginaries to potential ways of living in or living through things.'

1 Stalkers is a platform initiated at the Roma Tre University in mid 1990's. It is a collective of architects, artists, activists and researchers who work in experimental forms, creating self-organised situations and spaces. Further information available at: <http://www.spatialagency.net/database/why/political/stalkerosservatorio.nomade>

2 Francesco Careri (2009) has published a long, wonderful and curious stroll through walking as an aesthetic practice.

The meaning grounded from such encounters and movements through space is innumerable, therefore the research has benefited from exercising Butoh in order to intercept these affects. Geographer Derek McCormack discusses these affects as a generative relation, he describes this as, 'learning to think through and within the spaces produced for and by moving bodies - demands particular attention to the affective qualities of these spaces combined with a commitment to experimenting with different ways of becoming attuned to these qualities' (McCormack 2013, p. 3). The topic of affect is taken up in greater depth in encounter 2 (chapter 4). Eric Havadi (2010, p. 338), for his dance-house project in Istanbul looked to dance as a form generator in urban investigations. He proposes that dance be used as an attitude for spatial determination, both in architectural and urban interventions, because it offers alternative theories for inhabiting public space. To work through the body is to challenge our behavioural patterns. Sarah Ahmed (2006, p. 53) clarifies that bodies are differentiated by the way they inhabit space as each body occupies space differently, and space occupies each body differently, and thus as bodies move through space they affect each other to take shape. In this formation, bodies are not instruments, rather, they are a form of expression and atmosphere. To bring in Erin Manning's relationscape concept once again, she believes that a relation concentrates on this intensity and affordance of the movement itself. In this scenario, the movement occurs ahead of the body's becoming which in turn determines its directionality (Manning 2009). In turn, the relation is not a static entity, it is temporal and spatial in the same moment as it is in flux (McCormack 2013, p. 35).

The Butoh exercises have positioned the research aims to use the senses and movement in diverse ways as artefacts – fleeting, passing, slowly embedding, lasting an impression onto the body and transforming urban habit. There is room for both agencies of body and food to be kept in mind and explored in individual (encounters 1, 2, 3) and collective (encounter 4) conditions relying on ongoing curiosity and imagination. The intention is to re-adjust and re-align the relation of city to environmental behaviour via means of the body and movement using all the senses, and this needs to be developed further given the current urban condition cut off from a naturecultures awareness. This needs addressing if livelihoods in cities are to become ecologically ethical.

Orientating the body

Orientation is about surveying the landscape. Sarah Ahmed's queer phenomenology concept of orientation is pertinent in the question on finding our way in the world with its complexities and challenges, and in choosing which way to face it. She has a simple starting point, 'orientation is a matter of how we reside in space' (2006, p.1). In her concept of orientation, she follows how 'the concept of "orientation" through different sites, spaces, and temporalities...offer an approach to how bodies take shape through tending toward objects that are reachable, that are available within the bodily horizon' (ibid, p. 1-2). In orientating the body, we situate it as an anchor in the mode of inquiry from which to approach environmental challenges. In reading Ahmed (2006), I

have made an entry list to consider while I unfold the concept. She proposes orientation by:

- critically reflecting on how and which way we turn (left, right, east or west)
- 'being in line' or choosing not to, following directions or not
- exclusions or inclusions
- the distances between bodies and to spaces
- situatedness, ways of inhabiting and dwelling
- disorientation and by getting lost, and by how we find our way back
- familiarity
- the way we are facing and who we face
- where we begin from and where we end up, and by arriving
- perspective
- responding to the world around us
- experience, repetition and hard work
- commitment and social (or ecological) investment
- sensitizing space

Ahmed arrives at orientation via ways of phenomenology. Phenomenology helps in situating the experience but it is not specific enough because it is essentially an individual relation to a general surrounding. Therefore, phenomenology is not a used perspective in my undertaking of embodiment, also because I believe it keeps the dichotomy between body and mind and I find it far removed from the fleshy and situated approaches in feminist corporeal theory which resonate with Butoh practice much more closely. My intention with the embodiment practice is to go further into the relational and discursive aspects of bodies.

I arrive in orientation as a concept in embodiment through two trajectories: research into the senses and through active body practices such as Butoh and gardening. For me, the mere word to orientate is already a form of turning in a specific and chosen direction. I ask, what specific embodied orientations can be taken up to specify a care and commitment to the environment?

Orientation is very much about relationality, as to which way we orientate determines who or what we decide to relate with. Butoh as a medium has been a way to *know* and to *turn* the body in such intricate manners, not simply for moving in space idly but for worlding with (encounter 2). It has become a way of knowing space from the perspective of being both the space and the body simultaneously, expressed more poetically this means that 'spaces are like a second skin that unfolds in the folds of the body' (Ahmed 2006, p. 9). This thesis is not intended as an instruction guide for urban gardening, it is an 'orientating' guide for poethical bodies where gardening is one such direction for a *turn*. In this case, the foodscape becomes a re-orientating device that

gives bodies agency to act for the things they find important. Whatmore points out a critical junction in the way we consume food and proposes a necessary reorientation. She believes that food consumption should be re-situated in

‘more visceral terms, incorporating the multiple sites of inhabitation connecting the bodily spaces that locate ‘our’ being in-the-world to the metabolic frailties and corporeal compulsions of multifarious ‘others’ that share the precarious register of life and redistribute its energies through all manner of intermediaries and configurations’ (Whatmore 2002, p. 117-118).

Rightly so, but where to begin?

We begin from the body, and to trust the body, you must get to know your body and the place in which it resides in other ways with a grounding capacity. Butoh practice extends the body membrane into surrounding spaces, and the surroundings participate in the sensorial intake together with the body. Particularly the summer training experiences in the river bed and quarry enabled an acute spread of the senses, and also from watching students partake in phases 1 through 4 of the Butoh workshop in 2014. In inhabiting a space for use with intention, we project new folds into the world. These folds or contours are the lived and inhabited space that becomes vibrant by the dynamic body that moves through it (ibid, p. 11-12). In foodscapes, it is critical to direct spatial perceptions towards a larger intention outside one’s own body, this allows a body ‘to experience the relationship between persons and other materialities more horizontally, and to take a step toward a more ecological sensibility’ (Bennett 2010, p. 10). Spatial orientations are not only shaped by social orientations as Ahmed (2006) outlines in her book, but also by ecological orientations which too are affects of repeated behaviour over time. Orientations towards specific places and objects affect us, how we behave, what we do with our time, and who (nonhumans included) we do it for and with. In this instance the orientation develops a scale, one which should face both near and far.

The diverse ways in which we turn or orientate, provide us with a different mindset to the spaces that we encounter. In unravelling the complexity of direction, orientation, position and distinction, one can see that things are never as exact as they seem. We have seen that the simple act of moving through a space is not impartial and embodied understandings are critical to the process of urban-making. Therefore, an embodied approach needs to be explored in order to resurface the situated knowledge of body and space. Orientation denotes a commitment to the world we face towards.

Hence, to commit is an act of embodiment and our entire body and the space in which we dwell must follow through. A commitment offers in return an ‘affect’ or promises a ‘return.’ This return is being fortunate enough to know the body we inhabit and perhaps, if gardening is your orientation, having a harvest 1-2 times seasonally. This committing to someone or someplace benefits all involved. I return briefly to Carolan’s (2007) proposal for a deep commitment as ‘a sense of care’ extended onto others and onto the environment. Caring for the environment may

seem like a burden for some, a joy for most, or an unquestioned calling for others. It may also be all of the above, and something to work through. This rings similar to Haraway's call for '*staying with the trouble*.' The question is not simply how to care, or how to be more caring (or more ecological), but rather ways in which an ecological care manifests in the joy of everyday corporeal encounters. I referred to this joy as a playful mode in which to manifest ethical behaviour. This care or commitment is about embedding a dynamic relation, an action, with and to nature. I believe Ahmed's orientation works with the same aim of being in relation but she evokes a much more critical orientated-commitment.³ My aim with calling on Butoh practice has been to form a body that finds methods to commit to space through embodying and acting in it, and thus potentially making spaces that wait to be committed to. These spaces become objects in which the action is directed towards an intent, and how we behave depends on the relation set up. Positioning and orientation is critical to spatial practice because ultimately the way we act has resounding affects on how we co-dwell, co-produce and ultimately care about one another.

The next encounter is about imagining and finding modes in how to narrate worlds to which we wish to orientate ourselves towards. Through 'knowing', how do we construct the world around us? Chapter 4 will expand further on this notion of worlding; its attitude and value system which influence our behaviour and our being in the world. It will visit the practice of storying and performance as modes of relation-making and understanding that play a huge part in the role of exposing new urban fictions via way of the body.

3 Direction is not neutral also as a form of politics, left or right are markers of political allegiance – 'the right becomes the straight line, and the left becomes the origin of deviation' (Ahmed 2006, p. 13-14). East and West are not neutral either, asymmetrically 'East is associated with women, sexuality and the exotic, with what is "behind" and "below" the West, as well as what is on "the other side"' (ibid).

chapter four

encounter 2 Agora fiction | performance

The encounter in the city of Agora is an immersion entitled Organoleptic Interfaces, a two-stage exploration. The first stage is called Paperscapes in which I start with writings and modelling of natural farming based on Japanese farmer Masanobu Fukuoka. The second stage delves into the modelled space using a Butoh performance. The chapter, an encounter in Agora, then visits three supporting theoretical neighbourhoods; Worlding, Performance and Agency. Including, descriptions from the performance and dialogues with Butoh dancer Frauke.

As we embark on next part of the journey, I invite you to watch the film essay: Organoleptic Interfaces (Orrù 2017b).

‘to “embody,” “configure,” “inscribe,” “signify,” assert the possibility of materializing something that exceeds our knowledge, that alters the shape of sites and imagines other as yet unsuspected modes of being.’

(Elin Diamond 199)

‘The control of an action is in its act.’
‘The full-sense of an action is in its place.’
‘The future of an action is in Relation.’

(Glissant 1997)

Organoleptic Interfaces

paperscapes

assembling the stage



the Butoh performance



Organoleptic interfaces

Paperscapes - assembling the stage

Producers: Anna Maria Orrù (concept and research), Peter Christensson (BA student's art teacher)
Participants: University of Chalmer's BA students in the Department of Architecture
Date/Time: October 23, 2014. 9:00-12:00

Paperscapes is an 'imaginable farming' workshop to bring the element of foodscapes into a performative position – both as a making intervention and as a performance. The entrance into the workshop is through Masanobu Fukuoka's world via small fragments of his texts for his farming philosophy, primarily taken from his book 'One Straw Revolution.' Masanobu Fukuoka, born in Japan in 1913, went on to study microbiology, later specializing in the study of soil and plant diseases. Strenuous study of the world of bacteria brought him to a physical and mental collapse. With his recovery came a change which lasted his lifetime, the shift towards developing a method of farming he called 'Natural Farming'. Fukuoka (1978) created the method sometimes referred to as 'do-nothing farming', because it relies on nature to do the work.

In Paperscapes, the attempt is to take Fukuoka's texts and model them into a paper sculpture stage that will be used for the Butoh performance afterwards. The students were instructed to read Fukuoka's readings prior to starting, and were handed trace paper for modelling their thoughts through into a three-dimensional form. The students self-organised with minimal instruction into three groups that each took on an element of spatial making using the guiding principle of natural farming as a typology in-accordance with nature similar to permaculture techniques but with no tillage, no fertilizer, no pesticides, no weeding and no pruning, growing diverse produce year-round. The following are excerpts from his collected writings to underscore his array of concepts.

Masanobu Fukuoka - text fragments

The following sentences are all excerpts from Fukuoka's collected writings on natural farming from perspectives of nothingness, method, nature, season and time, the body and 'life world(s)'. Unless otherwise stated, texts are taken from Fukuoka 1978.

there is still one thing I can give them.

One straw

I picked up some straw from in front of the hut and said, 'From just this one straw a revolution could begin.'

'Human knowledge and effort expand and grow increasingly complex and wasteful without limit. We need to halt this expansion, to converge, simplify, and reduce our knowledge and effort. This is in keeping with the laws of nature. Natural farming is more than just a revolution in agricultural techniques. It is the practical foundation of a spiritual movement, of a revolution to change the way man lives' (Fukuoka 1985).

Spreading straw might be considered rather unimportant, but it is fundamental to my method of growing rice and winter grain. It is connected with everything, with fertility, with germination, with weeds, with keeping away sparrows, with water management. In actual practice and in theory, the use of straw in farming is a crucial issue

On nothingness

'The best plan [...] is true non-action, it is no plan at all' (Fukuoka 1985).

Natural farming, unlike other types of farming, is based on a philosophy which penetrates beyond considerations of soil analysis, pH, and harvest yields.

These four principles of natural farming (no cultivation, no chemical fertilizer or prepared compost, no weeding by tillage or herbicides, and no dependence on chemicals) comply with the natural order and lead to the replenishment of nature's richness. All my fumbings have run along this line of thought. It is the heart of my method of growing vegetables, grain, and citrus.

In growing vegetables in a "semi-wild" way, making use of vacant lot, riverbank or open wasteland, my idea is to just toss out the seeds and let the vegetables grow up with the weeds. I grow my vegetables on the mountainside in the spaces between the citrus trees.

On method

The usual way to go about developing a method is to ask about 'How about trying this?' of 'how about trying that?' bringing in a variety of techniques one upon the other.

My way was opposite. I was aiming at a pleasant, natural way of farming which results in making the work easier instead of harder. 'How about not doing this? How about not doing that?' - That was my way of thinking.

From that time on the question, 'what is the natural pattern?' was always on my mind.

Farming as simply as possible within and in cooperation with the natural environment, rather than the modern approach of applying increasingly complex techniques to remake nature entirely for the benefit of human beings.

On nature

Nature is everywhere in perpetual motion; conditions are never exactly the same in any two years.

Nature is in constant transition, changing from moment to moment. People cannot grasp nature's true appearance. The face of nature is unknowable. Trying to capture the unknowable in theories and formalized doctrines is like trying to catch the wind in a butterfly net.

On season and time

I wait patiently for the plant to develop and mature at its own pace.

The important thing is knowing the right time to plant. For the spring vegetables, the right time is when the winter weeds are dying back and just before the summer weeds have sprouted. For the fall sowing, seeds should be tossed out when the summer grasses are fading away and the winter weeds have not yet appeared.

On the body

The body of nature is perpetual transformation. For the same reason that it is called infinite motion, it may also be considered non-moving motion.

Food and medicine are not two different things: they are the front and back of one body.

On the 'life world(s)'

We have been born and are living on the earth to face directly the reality of living...Just to live here and now – this is the true basis of human life.

I believe that if one fathoms deeply one's own neighbourhood and the everyday world in which he lives, the greatest of worlds will be revealed.

There is meaning and basic just in living close to the source of things. Life is song and poetry.

'I wish to become the sower of seed. Nothing would give me more joy than to meet others of the same mind' (Fukuoka 1987).

Masanobu Fukuoka's textual seeds on natural farming and his valid approach to growing food were used as the underlining mesh-work for a student workshop. By extracting specific texts from his library, I wished to paint a picture from a vast spectrum of his knowledge. Paperscapes, an imaginable farming workshop, was organized to model this knowledge into a sculptural and spatial experience. Nel Janssens refers to this type of knowledge transformation as a *poetic expression* in which 'This relation between imagination and reality is linked to the relation between expression and perception' (Janssens 2012, p. 86). Social anthropologist Trevor H. J. Marchand investigates modes of learning where learning, situated practice and embodied cognition manifest human knowledge which exceeds language and is usually transferred through bodily and perceptual practice (Marchand 2010, p. xi). He is interested in how the different domains of knowledge can be transferred from the mind to the body imagination, making and reality; body as a learning and practicing medium based on activity and repetitive practice. Marchand's research has looked into the building and construction practices of indigenous people in Yemen and Mali in which construction skill and technique is transferred predominantly through speaking and actively learning in a shared knowledge making from one generation to the next. Research into generating knowledge can be explored through diverse modes of articulation such as motor, sensory and propositional, and its range of social, cultural and material manifestations (Marchand 2010, p. xii).

The crafting of this 'paperscape' is a making of a spatial symphony but also a melodic model, for the trace paper used rustles in the indoor draft, swooning gently to and fro, side to side. This paper was specifically chosen because of its light weight, translucent behaviour and noise property. Thereby, the different sensorial experiences that it brought along - light, sounds, weight - could occur both in the making process and afterwards in the performance. Seeing the students construct and model the texts with the trace-paper gave the research vibrancy and presence. The workshop participants included approximately 30 Chalmers BA architecture students, who for three hours needed to make the enacting stage for the Butoh performance. To get the students to comprehend Fukuoka's scientific construct, I asked them to model the knowledge in a physically built farm-scape made from the trace paper. The site became a place for collective-learning modelling and sculpting. The exercise was part of the 2014 AHA festival that dealt with the theme embodiment on the day concentrating on the 'torso', the central bodily motor of movement both for Butoh dance and for farming.

The students self-organised with minimal instruction. They were given the handed-out text to read and rolls of trace. They divided themselves into three groups representing different physical boundaries of a natural farm space: air, ground and edge conditions and proceeded to form an embodied three-dimensional understanding of the text. But here already, there is an inherent tacit knowledge that rests in the body; the knowledge of touching soil, and of the medium's air, wind, and weather. Every student already recognizes these properties, so the added imaginary leap to understanding natural farming is not so far. Tim Ingold views this tacit knowledge as the 'surface of our life-world', he believes that such knowing 'carries the intent of creating a hard

boundary between what lies below and above, and metaphorically between the material and the mental' (Ingold cited in Marchand 2010, p. 15-16).

In addition to the text, in the handout I gave the students keywords for surface materials which indicated seasonality:

Autumn – leaves, crunchy, freshly fallen off, puddles, wetness, transition, decay

Winter – snow, slush, fresh snow, ice, soil frozen, slippery, cold, covered ground

Spring | Summer – fresh plant, seed, mist, droplets, flowers, fresh soil, mud, moss,
fruit, vegetables, drought

These metaphors were complemented by a music composition written for Fukuoka's farming philosophy by Derek Gripper (2014), a South African guitar musician. The sound piece would also be used for the Butoh performance following the stage-making installation. Gripper's composing keywords for the music were:

seeding, constellations, phasing, rhythm, parallel harmony, overlaying permutations, companion plantation, diverse arrangements.

As seen from encounter 1 to Alba, which looked into the orientated body, Butoh choreography is often given as a metaphor instruction via a keyword. These metaphoric guidances are a way of relating the human to the non-human, and in this instance, to the constructed nature-esc farm landscape. After the few hours of modelling, a food garden paper sculpture emerged. It was a paused snap-shot model of all seasons into one space, in one afternoon, for one performance. The stage was now ready for the Butoh performance.

Butoh performance

Collaboration: Caroline Lundblad (Frauke – Butoh Dancer), Anna Maria Orrù (research)
Date/Time: October 23, 2014. 12:00

The performance comes as a mimesis by re-enacting inside this farmed paperscape. The students who constructed the stage, the performer entering the space, and each member of the audience have their own interpretation of the staged script. The task is unrehearsed and spontaneous. I have asked Butoh dancer Frauke to perform in the paper-crafted space for a 40-minute performance. She enters the space for the first time as she had not been present for the making of the paperscapes stage. This was very intentional as I wanted her to have a raw performance, free from previous prejudices and rehearsals to see what the sculpted space would do to her dance form. The sound installation by Derek Gripper, written for natural farmer Masanobu Fukuoka, is performed in the same instance weaved together with the paperscape. Both the body movements and the music have material properties and interfaces that interact with this sculpted farm. The atrium space has become a multiplicity of interfaces, the room has changed.

The Butoh performance is intended to bring a body in dialogue with these various materialities. The space is negotiated as a form of communication, whereas space prompts the body and the body animates the space. The interfaces overlap with the body responding and activating it. These are interfaces in between the real and the imagined worlds - a staged fiction, a paper world. We are no longer in the department, we are in a farm garden made of paper. The Butoh dance becomes a further narrative of Fukuoka's texts, and Frauke's body enters into an in-situ commitment to being in an imagined farm garden. I am very curious, given these interfaces, how would the constructed farmscape be perceived by the Butoh body? Nordic Butoh dancer SU-EN writes, 'the Butoh body is charged by its own necessity. It recycles its environs. It is an organism, not a shape. Butoh dares to transform the initial reality of the body and passes the contagion to the spectator. The viewer again recycles this received statement of existence into owned experience' (SU-EN et al. 2003, p. 169). The paperscape awakens, perhaps also encouraging the audience to imagine a place and time elsewhere. Gripper's musical installation rustles the trace paper against the large speakers. The patterned klang, kling, klonk of the guitar strings push and pull the paper onto the face of the speakers – adding an additional layer of sound. Sound has a movement too in this performance – Rustle...ssssssss.....qsssss.....wop – it hits speaker as sound air draws the paper near.

The Butoh performance places Frauke's body in negotiation with space, with time, and with edible matter tendencies – though not edible at all. In her Butoh form, Frauke activates the voids around her body to get to know the constructed world through her body. Her senses are her measuring devices for this embodied engagement. I want to mention briefly, Butoh dance is not a preconceived choreography. A dancer might have a few notes and ideas, as seen in the How to be invisible intervention, but the performance is not practiced beforehand. It emerges from

the contact and immersion into a space. Essentially, the space choreographs the dancer, rather than the other way around which is the usual case in most dance performances. It is a dynamic process; intimate, fragile and unknowing. There is a scent of vulnerability in the air from the performer, the creators of the space and the audience watching. We are in this together and follow the script as it unfolds. Geographer John-David Dewsbury (1999, p. 474) describes this entry into performance as an unfolding, he writes

‘A threshold is encountered, whereupon there is a moment of hesitation perhaps with its own duration and affect - a sense of fear, the tingling ‘being-there’ that feels like trepidation [...] moments unfold, proliferating and swarming forth, each with a residue pertaining to a weight of its own, a weight that distributes the actualisation to come by increasing the potential for some encounters whilst decreasing that of others.’

For Dewsbury (1999), performance is irretrievable. It is a topography of movement, enacted spontaneously, immediately and a ‘never-before-occurring’ situation that encompasses all the subjects in the space: performer, space-creator, researcher and observer. Space, like the Butoh performance, is also a threshold to be entered and encountered daily. The intention of the paperscape assignment had been to setup a spatial metaphor around Fukuoka’s natural farming. In a discussion with Frauke, I asked her to clarify how she views the time, body, space relationship in her Butoh practice,

‘Time is considered as a physical experience, and based on a reflective perspective of space. In the practice of Butoh, the body is carried by the space. Butoh dance studies nature’s conditions, processes and cycles. To understand a physical condition, the dancers use their body to study the journey of a movement. The aim is to master the cycle of arisen conditions - to send out a movement into space and in return, be able to bring it back. The aim is also to know the route back. This is considered one of Butoh’s ‘invisible’ techniques.’

Frauke’s performance in the imagined garden site enacted several organism forms which were conducted by the space. These animated creatures turned the paper landscape into a dynamic and interactive process. During her performances, Frauke uses several techniques to help her begin her corporeal dialogue with space. She develops masks and faces including Kali and teeth monster. She creates processes used in Butoh to help her; such as growth, spiralling, movement from ground to air (and vice versa), and decay. For instance, she uses a tree material quality of twisting power as a performative property. Other material properties in the performance included slime, bacteria, flower, salad and stone that derive certain natural worlds such as bacteria, light, tree, bee or stone world.

Butoh modes – body material properties

These poetic texts on body material properties are excerpts from Butoh dancer SU-EN's (2003) writings on the processes in Butoh training which reflect on the relation between the body and the world. The texts are an initial threshold into understanding Frauke's performance.

'The body is the world. The world is the body' (SU-EN 2003, p. 69).

Body Material stone

the body's smallest units are now stone particles
heavy, heavier, heavy
compressed, the body is filled with air between these particles

Butoh quality slowly creeps under the skin and takes command of the body and challenges all functions. The dancer gives herself up as a social and cultural being so as to fully investigate the force of nature. The dance is shaped like a stone that is formed by water [...] To work with the body is to challenge our behavior patterns. Can we ever be free of these patterns? Can we be free of ourselves? (ibid, p. 70)

Body Material twisting power

the tree grows through twisting power
nothing growing is straight
the wood is hard, harder than my body
tree knots grow on my surface
twisted harder by this twisting power
the face is twisted, not my face any more
the twisting power gives the body the possibility to move

The method of communication is direct and demands acute attention and the utmost concentration from the participant [...] The butoh body is shaped by words, thrown against the body to embody them, to integrate the intention...The body journeys into various conditions, or so-called body materials. These materials challenge and replace the shape and function of the body. (ibid, p. 71-72)

Body Material teeth monster

the teeth monster does not have a body
only teeth cracking
all is teeth
the landscape is teeth, cracking
the relationship with the world is all
with the teeth

The butoh body questions the distinction between time and space. From this emerges the sense of timelessness and the spatial incongruity perceived in performance. The sense of distance and proximity can be manipulated. The Butoh body also deals with the perception of manipulated borders in the consideration of time and space [...] In this heightened awareness and concentration, one pair of feet suddenly increases in number to thousands of pairs to occupy all available space simultaneously. The eyes are placed outside the body, above and under the body. (ibid, p. 72)

Body Material *lightning*

the lightning strikes
with one million electric particles
passes straight through the head
splits the face
through the torso
the legs
out into the space

it envelopes the ground, the walls, the roof
the space is entirely electrified

The butoh body investigates form, which is intimately connected with non-form [...] When the distinction of form and non-form between body, time and space is erased, a visual embodiment of the force appears [...] Form is dissolved to leave room for non-form. Then form takes over again in an external, dynamic process [...] The arm and leg might exchange identities. A shape can change only when it accepts the necessity of surrendering space (ibid, p. 73-74).

Body Material *rotting process*

autumn
bacteria fool around in drifts of leaves

a giant mouth gapes behind the body
bad breath blows through the space
this wind, the bad breath of autumn
blows the body through the space

The body is transformed into different living materials [...] The organic principles of nature are of prime importance to the study – both the nature which surrounds us and that which is inside us [...] How does gravity affect the body? How does a grain of dust affect time and space? All living matter follows certain principles. Everything changes; everything dies and is born again. Nothing is permanent in substance, nothing is fixed. Body, time and space come alive. The daily life of the butoh artist demands a challenge to surprise oneself; to allow the self to be drawn into the struggle of the natural forces (ibid, p. 74-75).

Body Material *slime*

the slime wall proceeds one step, surrounds the body
under the feet, slime
under the chin, slime
between the legs, slime
slime surrounds the body
creates an unstable reality
the slime forces push out into the space,
from the wall a slime creature emerges

Stage work is an excellent forum for a life based on chaos, with all its investigative opportunities [...] Placing the body on stage opens up a vast, infinite and risk-filled world. The stage is suddenly without borders, without rules, without explanations. The spectators participate in this occurrence as a ritual and then individually interpret it according to their own perspective. (ibid, p. 76)

The previous page-spread listed material property formulations used by Butoh dancer SUN in the making of her performances and practice. I find them very telling, and in reading these properties I am able to see how some of Frauke's movements emerged during the performance. Each world she creates during the performance, slime or decay, is conditioned by Frauke's understanding of the natural constructs which emerge through her Butoh modes and contact with the space. She simulates a dynamic metaphor of each world inside the paperscape stage. I ask her for an example; the light world is put into an allegorical construct of photosynthesis, and she re-enacts the imagined growth, algae, and curling flowers. Her more vigorous movements in the performance are taken from elements such as fire using imagery of a volcano and ash. The slower drawn-out movements, belong to the stone world. She shows the Kali teeth monster, sticking out her bottom chin forwards, and parting her lower lip to expose her teeth. The teeth monster is looking towards you now. So much of Butoh is also about face expression almost as if it is a threshold where the body emits itself into the space.

When I asked Frauke about the medium of paper, she immediately envisaged moist and said that since it had been a missing element, the absence of it generated drier movements within its absence. Butoh practice can fill in the voids of a metaphor too such as seen by Frauke's wet dry instinct. There was no smell. The capacity to imagine when the body has been immersed in Butoh form is strongly reflected. There was also a long-drawn-out tension between the performer and audience at the end of the performance, Frauke walks slowly towards them. The room is in complete silence. The space made between Frauke approaching them, and their held breath in silence, created a tension of not knowing – was the piece complete, and should the applause begin? When I asked Frauke afterwards, she said she was waiting for the audience to close the piece rather than herself blurring the line between audience and actor. The audience were drawn into the performance.

Frauke's enacted several organism forms which were called on for and conducted by the space. There is an imaginary power in Butoh. Elin Diamond (1996, p.2) writes that this skill in performance is an important part of the transformation process, she explains this process as, 'to "embody," "configure," "inscribe," "signify," assert the possibility of materializing something that exceeds our knowledge, that alters the shape of sites and imagines other as yet unsuspected modes of being.' In imagining something that is not there, in essence by materialising its presence through movement, the space changes. To the surface rises an ethics not considered before because the space itself choreographs it or the corporeal performs it. Performance has a movement, an act, an action, a performed narrative - *Did the space all of a sudden become a garden, really, a garden? Was it not a room before? There was no Kali monster in the room, but there is now one in the garden?* – In discussion after the performance, Frauke told me that the paperscape did not conjure up recollections of a farm for her, but rather, it evoked memories of a garden configuration. She discusses that the use of the Butoh body helps to capture sensory properties located in the stage setting (or context) and transforms these sensorial reactions into a movement. The space choreographs the body and brings to understand what Guattari meant

when he wrote, 'I dance not in the place but I dance the place' (Guattari, in Genesko 2002).

Frauke's responsive metaphors were also different from the season-inspired keywords I gave to the students for the paperscape. This difference illustrates the notion that Butoh can generate multiple understandings, approaches and transformations. As the metaphor readings were different for myself (producer), the BA students who built the stage, and for Frauke who performed the space, it leaves me to conclude that a partial mind-set for the edible landscape should be conditioned more literally into a metaphor used for a Butoh prior to the performance. However, both the making of the Paperscape and Frauke's performance summoned up organic and relational states – whether a farm or a garden. The investigation into the potential of imagination is that it can evoke empowering pedagogical methods for enabling another understanding of space. For example, this could be used in instances where a practice aim is to incite ecological impressions for a space. In this encounter, the intent was to set up a paper farm using a space-time construct, and to explore it through the Butoh performance in order to explore and develop embodied approaches for spatial awareness. Imagination is a critical key ingredient, as is the mode of creating a fiction to enact.

Feedback, experiences and observations

Intervention: Paperscapes and Butoh performance

Film: Organoleptic Interfaces

Motives: Narrative performance and modelling knowledge into artefact. 3d fictions that overlap Butoh techniques with farming narrative-knowledge sculpture.

Main theoretical neighbourhoods: Anderson, Stewart and Gregg & Seigworth (affect), Bennett (vibrant matter), Diamonds and Dewsbury (performativity), Dyrssen (methodological heterogeneity), Fricot (fictocriticism), Haraway (naturecultures and SF), Goodman and Janssens (worlding), Law (messy methods), Loveless (makingthinking practices), Manning and Petrescu (relationscapes)

Modelling knowledge into a live sculpture and performance became a transformative act. As there were no interview results from the participants and audience, the findings are extracted from discussions with students and their approach to Fukuoka's text, from observing the audience reaction to Butoh performance, and my experience of producing both sets of interventions.

I found it particularly telling that the students self-organised and for three hours modelled what they interpreted as natural farming. It was impressive to watch their bodies thrown into the activity and to hear their animated discussions referring to the text, discussing and modelling simultaneously. The active modelling of the scientific concepts became an important embodied pedagogy which allowed them to take in the information into a form of knowledge generation.

The potential of imagination and fiction can evoke empowering pedagogical methods for enabling another understanding of ecological impressions. Through storying, boundaries are blurred between human and nonhumans, creating new formations and formulations through artistic practices for agency. The intended formulations lean on feminist spatial practice and must remain fluid and open to allow for becoming and in-between potential.

Intermission

A letter from Agora

May 15, 2014

Dear Deer,

I have been traveling alone for a while now and feel I am in need of gathering and exchanging stories. I have arrived in the town called Agora which is reached along the River Unorthodox.

My body is weary from movement. I've accumulated a heavy load of situated knowledge but I'm orientated in the direction. As a nomadic subject, I stand at the gates of Agora – a beautiful city with a large central square for sharing fictions. Surrounding the square, is an array of different sized skyscrapers. As I observe, I see the square is used in a multiple of ways, depending on the world-view you bring up for discussion. There are debates, story-telling, and critical discussions. The town has numerous cinemas, theatres, bookshops, speaking corners, so that if you need fiction, they are open and available for a change in perspective.

People here seem to be storytellers, authors, poets, actors, performers, travellers, even researchers. But the city is not only populated by people; there are nonhumans too, our companion species, and their voices are just as loud; a shimmering cluster of vibrant matter.

Each skyscraper's height is determined by the number of stories (storys) it contains. The high-rises are linked by a string of corridors (string figures | SF) called 'Entropy corridors', where one story leads to the next. There is one particular story you know well, the Anthropocene, a heavy misplaced view of the world of relations. It does not look like a popular place nor destination. In the main square, the activists are gathering. They are not so much activists as they are story tellers, performers and ficto-agents.

There are three neighbourhoods in Agora, populated by different fictions, ways of performing and agencies. The first neighbourhood lies to the west of the square, high above the ground. It is called Worlding.

Arriving in the Becoming-With skyscraper, you don't feel alone anymore as you are in joint companionship with significant others. Here it seems everything is regulated by sharing; co-habitation, co-dwelling, co-becoming. Becoming-With is in constant construction with remnants of scaffolding everywhere you look.

In the adjacent structure called Imagining, I had a strange experience; I stood there and I did not stand there. Had I imagined the entire formation. This place is in poeisis, dynamic, making, forming, creating. In Imagining one must learn to think, to practice, to relate and to know in new

ways. Unknowing myself, I slip out to go to the second neighbourhood - Performance.

Arriving in Performance, I had a strange feeling that all bodies present were on a stage. The lines became blurred whether I was a performer or part of the audience. Performance is situated to the north of the main square, so when the sunlight hits the different forms, they shimmer with affect. When the wind kicked, you heard significant rustling ...ssssssss.....qsssss.....wop! Had I heard these sounds somewhere before?

I saw a poster being nailed up on one of the boards nearby. There was an event happening that evening called 'Fictocriticism', and the cast of writers included; the critic, the creative practitioner, the fictional characters, the artistic and scientific researcher, the artist, and the curiouiser and curiouiser. These enactments include the expression of many voices, minor – tacit - quieted ones. The feminist, the queer, the other. Hurrah!

I had one more third neighbourhood to awaiting my visit. Agency is situated to the south of the main square between the digital and bodily mappings. To arrive, you must use your body in as many ways as possible - walk, bike, safari, use a digital app, eat your way to this experience. In this place there was a sense of assembling. Everyone is encouraged to be in kinship and to recite verses from the 'Poetics of Relations'. They said that upon leaving, I would feel that I had undergone an affective experience. They were correct.

With my newly gathered souvenirs, I had felt it was time to carry on. I left the city of Agora with a strange sensibility of wanting to tell stories. My next city would be the perfect place to put my head in the clouds and imagine.

*Much warmth,
Anna Maria Orrù*

Ps: I enclose my research travel notes with the different neighbourhoods, and a few photographs from all the Stories told.

Theoretical neighbourhoods

On a failing fiction – the world kicks back

‘Ever tried. Ever failed. No matter. Try Again. Fail again. Fail better’ (Beckett 1983).

The truth is, we have failed. We have failed when we are sitting knee-deep in these environmental statistics. Crossing planetary boundaries, forcing on the 6th great extinction, distributing organisms all over the globe and in the wrong places, and creating new hybrid species. ‘Human activity has clearly altered the land surface, oceans and atmosphere, and re-ordered life on Earth’ (Lewis & Maslin 2015, p. 172). Given all this, environmental humanist Deborah Rose Bird reveals that ‘we simply cannot understand the enormity of what is coming, nor can we reduce it to any of our familiar narratives’ (Rose 2013, p. 213).

But the task is to try again, fail better. A conundrum. It is in errors that we find motive. I reason that through creating new narratives through embodied methods, with the capacity of imagination there is a chance to grasp the complexity and form other fictions to live by. This chapter is about this capacity and creativity to create narratives for new agencies.

The Anthropocene, as discussed in chapter 2, is one story, a very powerful one that keeps the hegemony and renders the human species omniscient, however, a species unresponsive and paralyzed by its misaimed attempt to incite behaviour. The Anthropocene is too large and too uniform. It dismisses the intricate delicacies, assemblages and scales of ‘life’ that exist. Other stories are needed. Rose (2013, p. 209) makes a further important point about the imbalance of agency caused by such power which is heavily placed on humans making them ‘all powerful’ in the sense of ‘becoming god-like of humanity’. Not only is this agency all too dominant, it is also misaimed, she uses the metaphor that the ‘Anthropocene is something of a mirror, and the image it is giving of human agency is grotesque – an agency that outstrips its capacity to manage itself, that wrecks, pillages, loots and destroys, that has very little idea what it is doing, and that carries with it, in contradiction to all reason, an expectation of immunity’ (Rose 2013, p. 209-210). So what other form can this agency become and take?

Relation is key. Umwelt implies an alternate sensory modality and a different awareness of which can only come from the body.¹ The term lends itself to an inclusive all-species meaning,

¹ In the German language, Umwelt literally means ‘environment’. In Ethology, the word signifies ‘the world as it is experienced by a particular organism.’

the kind of thinking that is inherent in the thesis. The potential of the using the body is to find modes in which to bring this pluriverse of relations to the surface, and make them apparent. As seen, the Anthropocene neglects a diversity of species that are affected and that can affect change. A dynamic change is still needed. However, humans wait for other solutions primarily driven by a smart green planet. This waiting is an element of time and it becomes an important factor in the Anthropocene as Castree (2015, p. 71) explains, ‘There are large spatio-temporal uncertainties about rates of environmental change. A ‘wait and see’ approach would thereby be reckless’.

Why is the contextualisation of the Anthropocene so crucial? Within my work as an individual, researcher and practitioner of ecological sensibilities I have found to be recently doubting my field in its current formation. In urbanism and architecture, in the past I was encouraged by the promise of a smart green planet, I even taught about it. But something has changed, the promise of passing the responsibility to a technological entity which has become a business model in itself, seems futile. Waiting on the side-lines hoping that the planet becomes smart enough. Something needed re-texturing. Re-worlding. Re-storying. Re-performing. Re-agencying. Re-relating. I turned to Donna Haraway who gently nudged me to stay with the trouble. She sparked a re-texture by urging me in the direction of storying. She writes,

‘Inverting meanings; transposing the body of communication; remolding, remodeling; swervings that tell the truth: I tell stories about stories, all the way down. Woof’ (Haraway 2003, p. 21).

The challenge has become to bring the body back into the discourse of the Anthropocene, to incite movement as Beckett well knows, spade in hand (or better in several hands) as Haraway suggests in a tentacular thinking mode, proceed with viewing the human species as part of a list of characters in this narrative-making. Characters that all embark on the same journey. Think we must! Move we must! Bodily we must!²

Speculative fabulations in practice

tentacular tentaculum – tentare – temptare – to feel (The Evergreen State College Productions 2016)

We need other stories that incite a different relation with the world – things, nonhumans, other humans – tropes that beg for movement(s).³ Haraway (2003, p. 20) reminds us that ‘all stories

2 This an elude to Virginia Wolf’s feminist call to arms for women, often used in Haraway’s writing.

3 I looked up the definition further in the dictionary ‘a figurative or metaphorical use of a word or expression’, from Greek ‘turn, way, trope’, from trepein ‘to turn.’ Haraway (2003, p. 20) also uses the word ‘metaplastm’ in this context – which she describes as ‘a change in a word, for example by adding, omitting, inverting, or transposing its letters, syllables, or sounds. The term is from Greek metaplastmos, meaning remodelling or remolding... There is a biological taste to metaplastm... Flesh and signifier, bodies and words, stories and worlds: these are joined in naturecultures. Metaplastm can signify a mistake, a stumbling, a troping that makes a fleshy difference.’ Her fictions are Metaplastmic tropes that signify a dynamic form of metaphor and transformation that joins us on this journey.

traffic in tropes, i.e. figures of speech necessary to say anything at all. Trope (Greek: tropos) means swerving or tripping. All language swerves and trips.' She exerts that tropes can be very empowering, 'Tropes are what make us want to look and need to listen for surprises that get us out of inherited boxes' (ibid, p. 32). These stories are not about heroes.⁴ Ursula Le Guin refers to a 'hero' as a bottle, taken from Virginia Woolf's 'diction-withary' in her notebook 'Glossary', in which she alludes to hero as bottle. With this mode of thinking, beyond an omnipotent hero, the bottle is a container, a thing that holds things together. 'A holder, a recipient' (Le Guin 1996, 150). Donna Haraway relies on storying as a container of potential, she encourages a role wherein,

'Our job as thinkers are about telling and changing the stories so that they are more livable. So stories aren't all about the hero – man, humanity etc. Storying is powerful. Lives are lived along lines. Le Guin teaches about "big enough" stories. Situated stories that can collect up what is here, so it can be given' (The Evergreen State College Productions 2016).

In addition, I suggest that in the encounters, and therefore relations, we set up with 'nature' – whether staged, storyied or unforeseen – there is a possibility to add modes of action and transformation through embodied critical practice. Fiction is a red string, a string figure (SF), that ties all the four encounters together. SF used in Haraway's writing signifies Speculative Fabulation at its best, but also can refer to string figures (Haraway 2012). Donna Haraway calls these SF narratives – 'stories for resurgence on a damaged planet' (The Evergreen State College Productions 2016). The research has been put into a fictional mapping that allows us to find our way through the land of encounters. Added to this, is the corporeal practice which in this encounter has been put into a fictional construct using Fukuoka's philosophy on natural farming. Encounter 1 had dealt with fiction through the metaphors of training. Our encounter in Agora visits three supporting neighbourhoods for theoretical nutrition: Worliding, Performance and Agency. These are general terms that of course need intricate detailing and will unfold as the text journey's along. This thesis abolishes stories that rely on binary thinking. I take up Haraway's tentacular thinking instead, for we must use all the arms, feet, antennae (feelers) and limbs we can.

'The tentacular are also nets and networks, it critters, in and out of clouds. Tentacularity is about life lived along lines < and such a wealth of lines' (Haraway 2016a, p. 2).

As Haraway emphasizes, we are companion species. In her Companion Species Manifesto (2003, p. 3) she explores the question 'how might ethics and politics committed to the flourishing of significant otherness be learned from taking dog-human relationships seriously.' She alludes to these human nonhuman relations as '*naturecultures*.' Her companion species allow us to

4 In the same line of thinking, 'A book holds words. Worlds hold things. They bear meanings...holding things in a particular, powerful relation to one another and to us' (Le Guin 1996, 153). As do the stories that are told or made. The tropes used for thinking, for relation and for transforming. These stories are not about the powerful hero, but about a complexity that does not contain a beginning and an end. It is a story 'full of beginnings without ends, of initiations, of losses, transformation and translations, and far more tricks than conflicts' (ibid).

think of these relations differently, she clarifies that the dogs are not only used as 'surrogates for theory; they are not here just to think with. They are here to live with' (Haraway 2003, p. 5). This is a fundamental difference to consider when approaching matters of metaphoring. Haraway's companion species are tropes, metaphors to live by and with. They are species because in this way there is a corporeal joining of materials and worlds, and therefore we are 'bonded in significant otherness' (ibid, p. 16). In modes of SF, a feminist practice to think in other typologies and worlds, the borders of thinking, doing and making are shifted so that non-harmonious agencies are made transparent and put together in uncommon configurations. These companion compositions are necessary to bridge natureculture relations to draw attention to *significant otherness* and to grow relations. These relationships are 'multiform, at stake, unfinished, consequential' (Haraway 2003, p. 30). They are in themselves tropes because they make us search for the unexpected to move us away from our 'inherited boxes' (ibid, p. 32). This mode of thinking is deeply rooted in feminist theory which exposes a 'refusal of typological thinking, binary dualisms, and both relativisms and universalisms of many flavors, contributes a rich array of approaches to emergence, process, historicity, difference, specificity, co-habitation, co-constitution, and contingency' (Haraway 2003, p. 6-7). SF is in contrast to the Anthropocentric composition which dictates and maintains unequal dichotomies. Rosi Braidotti, an SF agent, appeals for post-human forms. She urges to,

'Reground our human in a relational activity. We are relational and accountable [...] An ethical compass is needed – what are the interfaces of these communities, collectives, urban humans we would like to become. What companions to each other would we like to become? Becoming. We need to be recomposed in an accountable manner, united by a shared hope that the practices we engage in need to be postulated collectively into posing new ways of being human. What are the new ways of being human? (Centre for the Humanities Utrecht University 2015)

The interventions in encounter 2 explore the relation between imagination and relation in the making of spaces. Through the modelling and performing, all participants have been kept in a state of curiosity and imagining with companions. In the words of Virginia Woolf - 'think we must' - when building contact zones that matter in our cities. In narrative theory, our role as thinkers is about telling, retelling and changing the fictions so that they become more advantageous to survival. This storying can harness the imagination to create new dreams, new stories – ones that steps away from the anthropocentric view into a more hopeful, even playful, one. The encounter is an approach on how to grasp the task, through storying and setting up narratives (fiction), imagination and being constantly curious, the opportunity to bridge significant otherness is possible. The imaginary of post human forms is liveable.

SF practice is a model for worlding and for thinking. This mode of thinking is part of a new materialism in feminist practice wherein it produces approaches to seeing the diverse relation between us (the human species) and our companions. Natalie Loveless, professor in art, centres on the labour of makingthinking practices. She situates these practices' relations in ethical

approaches to environmental challenges because they are “*of the world*” and not “*in the world*,” thereby calling us into a different mode of accountability and responsibility that is fundamentally ecological’ (Loveless 2012, p. 105). She reinforces that,

‘What matters is our willingness to engage the multiple ways in which this “making” is a fundamentally situated, relational construct; one that entangles us in relations of debt in ways for which we can never account, despite always being willing to be accountable’ (Loveless 2012, p. 103).

To be accountable, we must let other worlds surface and become part of the process of makingthinking and doing practices. As Loveless points out, ‘practice and research are messy and entangled. They are both deeply creative practices that emerge as a kind of thinking that can take many forms’ (ibid). These forms are transdisciplinary and take into account multi-species and nonhumans through the diverse stories reiterated. In this encounter, they are a Butoh dancer, a role of trace paper, and a farming philosophy with blurred boundaries between all accomplices – makers, observers, performers, researchers and writers (and readers). They are ways in which I come to critically understand and dissect the ecology of my practice in an explorative way. The makingthinking of storying gives way to inherent worlding which is critical because, as we have seen with the Anthropocene, worlds need reformulating in terms of responses to the ongoing environmental challenges. But what worlding am I specifically referring to in order to seed this ecological accountability in urban-making? Haraway opens up the thinking into understanding worlding.

Worlding – becoming-with environments

‘Worlds where place is palpated and inhabited, not just lost in the misplaced concreteness and void of space?’ (Haraway 2012, p. 6).

A majority of humans are vibrant matter ignorants. The challenge in setting up relations is vital because the root of the problem is how we inhabit cities in terms of ecological malfunction – this extends to how we live in cities, how we treat cities, and our attitude towards naturecultures (nonhumans, resources, processes). Hence, setting up these relations with nature through modes of storying and worlding can create an awareness towards environmental change in the form of deeper commitments, place attachment, accountability, motivations and actions for a particular poethos in urban living and making.

This PhD began by proposing the interplay of two main ingredients, body and food. Both have equal and a critical agency when approaching urban-making, as there is a need to provide spaces made for relating, to each other, to ‘nature’ or better naturecultures, to food, and to imagine other worlds to become-with. To find relations to become-with means exploring relevant approaches and conditions for interplay and interchange. This (ex)change in relations create the

experience with and commitment to a place of dwelling. To dwell is to relate. Jean-Luc Nancy (2007, p. 10) asserts that to dwell is to relate also on an ethical dimension, he writes that ‘the world is an *ethos*, a *habitus*, and a place of dwelling.’ The two are entangled and inseparable because the right to dwell is tied to *ethos* and ‘to take-place is not to simply occur but to properly arrive and happen. This properness indicates here the ethical dimension of the world, an originary ethics of being-of-the-world’ (ibid, p. 10). Therefore, how we dwell or inhabit the world(s) we live in is critical and is a matter of actively thinking, imagining, making and doing. Janssens refers to philosopher Peter Sloterdijk’s concept of the ‘animated sphere’ to depict these world-formations. She positions his thinking on ‘local world creations’ wherein most humans have the capacity to create their own worlds. She explains that the ‘World here is understood not merely as a space or a location but as an animated space – that is, in the strong sense of a *place*’ (Janssens 2012, p. 29).⁵

I unravel the aspect of worlding through three perspectives; being, becoming-with, and imagining. The first two lenses, being and becoming-with, are discussed together in the next section, while the third lens of imagining is in a separate section following. Worlding indicates both a verb and a noun: doing, making and thinking-through. It is a practice that is in constant dynamic movement. For worlding does not stay still and is not singular (McNeill 2006). Worlding is an ambiance and an assemblage of worlds. Humans and nonhumans, wherever they settle, can formulate spheres of existence and dwelling. Within this sphere, the challenge is to encourage ethical and ecological dimensions - poethical practices, and I postulate that artistic encounters are a way of conceiving and setting up spaces for these dimensions to emerge.

Poethic world formations

Worlding through the perspective of *being* sets a tone and an attunement. It is a gathering of possibilities into multiple-worlds and a celebration of diversity and complexity. In order to understand the relations between these multi-worlds, historian William McNeill (2006, p. 1-2) studied how one world becomes another, finding that the answer is not a determinate event but rather an attunement for a multi-fold of possibilities. This worlding is not only spatial and material, but in the same instance, it is atmospheric and temporal. It depends on past and current moments, and the future possibilities that could be, the worlds not yet formulated but possible. Nel Janssens (2012, p. 57), from her study into philosopher Nelson Goodman, points out that this world-forming is not to become one single unified entity; for there are multiple worlds simultaneously, many hold different concerns, inhabitants, significance and properties.⁶ Goodman and Janssens make it clear that this multiplicity is not about multiple alternatives to one world, but rather, that they are multiple actual worlds (Goodman 1978, p.2, Janssens 2012,

5 I would like to note that this idea that all humans have *equal* capacity to construct their own settlements should be taken carefully when considering privileges allotted in the Global North and South.

6 I have simultaneously read Janssens’ and Goodman’s account of these multiple worlds as both allow me to get a larger understanding of the concept. Their arguments go hand-in-hand. However, I find Janssens’ thoughts more relevant as they are directed towards an urban understanding rather than a philosophical one alone.

p. 57). Therefore, they can be seen as *swarms* of potential discussed in encounter 4 (chapter 6) under the guise of collective relations.

Dewsbury (1999, p. 491) who writes from in between performance studies and geography explains this multiplicity further, 'Parallel to the world we focus upon are swarms of other worlds, worlds so immanent that we might potentially slip into them.' This is difficult to grasp as, ontologically speaking, we can better formulate a world that is singular and universal (Janssens 2012, p. 57). To unravel this thinking, Janssens' sheds light on Goodman's writings in which he points out that,

'if worlds are as much made as found, so also knowing is as much remaking as reporting. All the processes of world-making I have discussed enter into knowing. Perceiving motion, we have seen, often consists in producing it. Discovering laws involves drafting them. Recognizing patterns is very much a matter of inventing and imposing them. Comprehension and creation go on together' (Goodman, p. 22).

I find a dynamic relation between the thought of storying and worlding. If it is indeed the individual subject that constructs these multiple worlds, then *being* seen as an atmosphere of multiplicity is also a *becoming-with* in the same instance. The role of creating worlds through storying is an important aspect of this encounter as it allows us to ethically navigate through the complexities at hand, and leads the way to the fictocritical enactments discussed further on in this chapter that are emphasized by the artistic practice in paperscapes and the performance. However, to gain a further understanding of multiple worlds relies looking at it further from a biological standpoint, rather than a philosophical one.

From this position, Haraway regards multiple worlds as multidimensional and situation-formed relations. Her concept of *natureculture* formations is an ontological choreography for an ethical relating between species, and such practices entail training to become companion species through an 'ongoing alertness to otherness-in-relation' (Haraway 20013, p. 50). These naturecultures are not becomings in themselves, but rather *becoming-withs*. A multi-species, nonhumans, and vibrant becoming-withs. The second perspective of worlding through the lens of *becoming-with* builds on Nancy's ethical dimensions, habituality and world-forming. For Nancy (2007, p. 2), 'world-forming maintains a crucial reference to the world's horizon, as a space of human relations, as a space of meaning held in common, a space of significations or of possible significance.' In addition, this becoming-with looks to reformulations and cohabitation with others wherein creativity is a key ingredient in forming worlds and dwelling in world-forming spheres. I refer to this directly because it reinforces the artistic trajectory and process of the thesis.

In this particular encounter with creative fiction-making, the bodily and spatial domains play an important role in world-formations. Leslie Jaye Kavanaugh (2010, p. 95) researches the body's role in architecture where she is concerned with questions of how humans exist in space. She also turns to Martin Heidegger's writing on dwelling,

‘We are “in” the world, he said, and fundamentally interconnected with the things in it. We are always in relation with things in the world, and that relation is fundamentally spatial, characterized by a ‘inconspicuous familiarity’ and a ‘belongingness’ (Gehörigkeit), and ‘insideness’ (Inwendigkeit) [...] We exist in space. Our corporeality dwells in proximity to objects and other persons; therefore, human existence is essentially spatial...We ‘belong’ in the ‘insideness’ of space. We inhabit space through our cultivation and familiarity with things in our world.’

Therefore, we are essentially space and space is us. The boundary between the interfaces of ‘I’, ‘You’, and ‘Them’ are significantly blurred into an ‘Us’ – in relation of becoming-with, habiting-with, dwelling-with. In order to create the palette for these conditions, a carefully crafted assemblage is needed that requires agents who maintain this complex resilience of cohabiting with others (chapter 6). In encounter 2, this assemblage was explored through the crafting of paperscape and performing it through Butoh. It revealed that space is also a choreography and that corporeal imagining and metaphors are approaches in which to bring these blurred borders to fruition through the embodied investigation of relations. These staged and enacted fictions have been used to understand the materialities of a space and concept, and also bridge between the knowing and the material through makingthinking.

Artistic research then, through these mindsets, can be a mode of world-making along with philosophy, anthropology and social science. This mode of engagement with the world opens up the possibilities for reformulation and reorientation. It is a remaking of ourselves through the transformative endeavours of an ecological poethics. We gather again at the crossroads of anthropology, humanities, political theory. In chapter 2, I referred to Braidotti’s (2002, p. 84) portrayal of nomadic corporeal practice wherein a nomadic subject (or story, or sphere, or world, or worlds) exists in a critical flux of constant transformation politically, empathetically, ecologically, ethically and passionately engaged in worlding. Finding means to be engaged with such energy and desire asks for constant creation and re-creation.

Goodman (1978, p. 6) points out that worldmaking always begins from worlds that already exist and that the making is actually a re-making. Hence, artistic approaches to research give us the capacity to view current worlds in renewed and altered ways as they can bring to the surface what remains invisible (discussed in chapter 1). To tie these thoughts back to a biological standpoint, I return to the concepts of Bennett’s vibrant matter and Haraway’s companion species that seek to reorientate humans into becoming-withs with a significant otherness in mind. In Bennett’s call for re-inventing, she affirms that in order to do this

‘We need not only to invent or reinvolve concepts like conatus, actant, assemblage, small agency, operator, disruption, and the like but also to devise new procedures, technologies, and regimes of perception that enable us to consult nonhumans more closely, or to listen and respond more carefully to their outbreaks, objections, testimonies, and propositions’ (Bennett 2010, p. 108).

This urge to reformulate our modes of being in the world(s) brings me to the last lens in my worlding trilogy – the lens of imagining. The third perspective of *imagining* notions worlding as poesis because it simultaneously connects to creation, ideas and making in a more physical sense which is integral to the embodied mode of working.⁷ In this mode of worlding and formations, creativity, imagination, as well as regarding the world in flux are required. It also demands a poetical curiosity to take place in encounters with these worlds, as becoming-withs.

The purpose of this particular encounter 2 is to go on a travel to unravel different ways of urban-making that take into consideration becoming-with, a journey to push the imaginaries and motivations. John Law (2004, p. 2) suggests that in a world that is entangled, these approaches have a complex undertaking in that ‘we’re going to have to teach ourselves to think, to practise, to relate, and to know in new ways. We will need to teach ourselves to know some of the realities of the world using methods unusual to or unknown in social science.’ The same goes for the field of architecture and urbanism. Law suggests that possible methods can emerge through ‘hungers, tastes, discomforts, or pains of our bodies’ (ibid). What is crucial to maintain is that these methods are not built on normative practices that remain in structures of hegemony and dichotomy. They must remain heterogeneous and multiple, renewed in their new functionalities and uses. Law refers to this positioning (reorientation) as an

‘open space for the indefinite’ [through] ‘creating metaphors and images for what is impossible or barely possible, unthinkable or almost unthinkable. Slippery, indistinct, elusive, complex, diffuse, messy, textured, vague, unspecific, confused, disordered, emotional, painful, pleasurable, hopeful, horrific, lost, redeemed, visionary, angelic, demonic, mundane, intuitive, sliding and unpredictable’ (Law 2006, p. 6).

Performance is a mode in which to reorientate and explore the relation to the environment, and to critically reformulate that relation when it goes askew. And as Dewsbury points out, it is about ‘knowing how to negotiate our way through a world that is not fixed and pre-given, but that is continually shaped by the types of actions in which we engage’ (Rosch et al. cited in Dewsbury 1999, p. 477).

The artistic encounter opens up the worlding of the worlds, and as such, I make the leap that in the search to explore with the body is also a way of world-forming. This brings us to the next section of research formulation – performance – which rests on the banks of worlding as an event that forms itself.

Performative relation-making

This encounter has looked to ways of staging fiction as a form of artistic research: exploring alternative methods to incite awareness in regards to urban food complexities through Fukuoka’s

⁷ A *poesis* is poetic and poetry at the same moment. In the Random House dictionary, Poesis is a combining form meaning “making, formation,” used in the formation of compound words.

texts. The aim is to collapse the epistemological gap between the complexity of environmental issues and the behaviour around them. In other words, find new forms of storying urban ecological ethics in urban-making. Via use of the body to explore a sensorial and physical dimension of space and its potentiality, performance is used to concentrate on the agencies that unfold. This includes agency for both individual and collective forms of the bodying, taken up individually in encounters 1-3 (chapters 3-5), and collectively in encounter 4 (chapter 6). However, all encounters explore collective forms of relating.

In order to continue, I want to unfold the term *performative* and to contextualise it into my work. To link it to the previous sections, the performative can be seen as a mode of staging fiction and simultaneously world-forming, or worlding. In the 1950s, English philosopher John Langshaw Austin first formulated the concepts of 'performative' and 'performativity' in the philosophy of language known as 'speech act theory' (See Loxley 2007, p. 2). Austin refers to linguistics as a form of performance, however, I also embrace corporeality into the performative because body language is also considered a fundamental form of communication. Lorna Marshall, dancer, choreographer and teacher at the Royal Academy of Dramatic Arts in London writes on the significance of body language, she states that 'The body is also the core of all real-world human communication; probably seventy per cent of everyday conversation is body language. Your actions, your reactions, how close you sit while speaking, how tightly you hold your hands, are all aspects of body language. A further twenty per cent is the music of the voice (its rhythms, pitch, volume, energy and pace), and only ten per cent the surface meaning of words' (Marshall 2001, p. xi). If the body can take such a primary role, then it can be seen how the *performative* in my work becomes a dynamic form for artistic research in urban-making, thinking and knowledge generation. The production of different worlds and traversing between them has been discussed to set the tone while we continue to discuss the performative and its poethic implications in this encounter 2.

Fictocritical enactments

'fictocriticism enables the expression of minor voices, feminist, queer, other; it is performative in the employment of multiple voices and the expression of multiple points of view amid a world; it empowers fiction as a critical approach that can assist in the development of a design project; it allows for an expanded definition of what design can do' (Frichot et al. 2012, p.72).

The practice of critical fiction includes a cast of writers; the critic, the creative practitioner, the fictional characters, the artistic and scientific researcher, the artist, and the curious. Hélène Frichot explores Critical Studies in Architecture and as an agent of critical fictions which she calls *fictocriticisms*, she describes these as the 'creative usefulness of fiction in the construction of other possible worlds,' be they becomings, imaginings or performatives (Frichot et al. 2012, p. 69). She explains that fictocriticisms give the 'situated capacity to ethically cope with what

confronts us' (ibid, p. 69). In other words, it can help in understanding the complexities and entanglements of ecological proportions, also when we consider food-related urban matters. There is a strong potential for a fitting together between fictocriticism and performance because the performative mode can give an 'entirely tactical response to a particular set of problems – a very precise and local intervention, in other words [...] Fictocriticism is not frivolous, but facilitates new critical imaginings' (ibid, p. 70-71). Therefore, performing critical fiction such as natural farming in imaginative constructs using the body, brings about a tactile approach in both interventions in this encounter.

Katarina Bonnevier in her radical account of queer feminist theory in architecture charges performativity with a dynamic force. She sees performativity as a form of critical fiction in architecture and refers to it as 'enactments of Architecture, that vary in scale and temporality, where the actors and the acts are entangled with the built environment' (Bonnevier 2007, p. 15). Bonnevier refers to Judith Butler's use of *performativity* to bring up its origins of gendered categories constructed socially and historically through performative acts. For Butler the gendered identity is performative, therefore it exists as long as it is recurrently performed. Bonnevier points out in her reading of Butler's politics of the performative that the intention of a performance is not what gives it force, but rather it is the repetition of certain structures and practices that holds authority (ibid, p. 49). Therefore, the critical question to ask is could a performativity encourage identities that are beneficial not just oppressing? and could such identities be used in ecological discourses in terms of urban behaviour?

This brings up the important distinctions between performance and performativity; performance occurs on an individual/singular level, while performativity can become an institutionalization or an infrastructure.⁸ Therefore, in this thesis performance is the main trajectory of research. Performance has the competence and potential to expose tacit discriminations so that they can come into critical dialogues. Furthermore, it can also bring up revitalised and reformulated desires for being which can be included in structuring urban identities. In this sense, the performative and performativity can be creative endeavours which Dewsbury clarifies that it is 'our ongoing tentative endeavour to enact local utopias that seek to create situations for joyful encounters, to enact performances that work in such a way that they do not question the superiority of one body over another, but rather compose a rhythm that sustains and eases' (Dewsbury 1999, p. 493). This joyful rhythm of the performative is used as a catalyst to formulate an ecological ethics in the encounter and a significant otherness in world-formations that brings attention to the complexity of urban matters. In addition, the performative is used to break down binary thinking; in the instance of nature and city, body and

⁸ Dewsbury (1999, p. 475) sees performativity as a 'slippery' term. Even though performativity is 'linked to the idea of a performance [...] regardless of the multiple instances by which a performance might come to be defined, the performative slips across, beyond, and through [...] the performative is the gap, the rupture, the spacing that unfolds the next moment allowing change to happen.' Hence, while the performance is happening, the performative is not the concept that created the performance. It lingers in-between, and emerges as a residue.

space, human and nonhuman etc. and can take a role of creating relations. Dewsbury (1999, p. 477) explains that ‘our thought (ideas) and action (practices) assemble the relations of human and nonhuman and announce the discourses through which we exchange and, through description, make our experiences meaningful’. To support this relation-making, Dyrssen (2010, p. 226) views performance as a two-way dialogue and as a device for knowledge generation through composing, embodying and modelling to evoke new meanings, she explains that

‘Performance is both to act in a situation and to make something act, that is, to investigate by making-action as well as composing the set-up. Performance continuously produces examples that can reveal new aspects, meaning and questions. Analysis is accomplished through action, by staging, provoking or changing the situation. What has been conceived as staging fiction is part of performativity.’

My research intent has been to bring the corporeal into this mode of making fiction so that it can play a larger ethical role through the poethical practice. Using an ‘imaginary’ mode of thinking needs to be choreographed using ethical intent for it to enlarge its potential political background such as; desire for ecological behaviours, envisioning alternate landscapes and uses in the city, and encouraging different urban-making linked to body, space and time.

Staging fiction could also be a way to blur the boundaries between audience (passer-bys at a site) and performers (potential gardeners at a site) in terms of their orientation in the city. I refer to passer-bys and gardeners because both agents are present in and around an urban garden space and from the research from phase 1, I became interested in how the performativity of urban farms can have an effect on the larger urban public. The gardening activity can be considered a mode of performance in everyday urban life which could be seen to inspire an ‘instruction’ for ecological living simply by its presence and visual knowledge-practices it displays to the passing public. In Butoh performance this relation is not as clear, the separation between being an observer, producer of the performance, and a researcher was far removed from performing in the space and understanding the delicate sequence of artistic movement.

Materialism of encounter⁹

Another important ingredient in performance is a dynamic materiality entangled in worlding alongside the material, physical, sensorial and bodily properties present in a space that can be revealed through Butoh practice. Materialising as a form of making fiction present was eluded to by Elin Diamond (1996, p.2) when she remarked that performance materializes something that exceeds our knowledge and therefore can transform modes of being, or rather encourage

⁹ The title of this section is taken from Bennett’s writings on thing-power in which she elaborates on the term originally used by Louis Althusser. Bennett (2010, p. 18) writes, ‘Louis Althusser described this as a “materialism of the encounter,” according to which political events are born from chance meetings of atoms. A primordial swerve says that the world is not determined, that an element of chanciness resides at the heart of things, but it also affirms that so-called inanimate things have a life, that deep within is an inexplicable vitality or energy, a moment of independence from and resistance to us and other bodies: a kind of thing-power.’

becoming. I wanted to look at this through the lens of performance for if we gave the force of things more attention, how might urban-making transform?

Becoming is, as Braidotti says 'the affirmation of the positivity of difference, meant as a multiple and constant process of transformation' (Braidotti cited in Dewsbury 1999, p. 485). Becoming is also a movement as it establishes 'the relations of movement and rest, speed and slowness, that are closest to what one is becoming, and through which one becomes' (Deleuze and Guattari cited in Dewsbury 1999, p. 486). This is a way of thinking through new materialisms present in feminist practice. I have used Loveless (2012) who argues that making is a situated relation construct that carries accountability. Here I have linked the act of making as a form of materialising present in artistic research. In the natureculture mode of thinking, Jane Bennett's account for a vibrant matter and dynamic materialities drives this research the most. In the chapter 2, I articulated Bennett's vibrant matter as having a performative act which gives performativity a more sensible, dynamic and critical engagement with matter and thus with nature. Similar to modes of fictocriticism, performance, and worlding, Bennett's materialism is simultaneously visible and invisible, at times tacit, however still retains its influence. It is an assemblage converter, it brings on transformation(s) which in itself cannot happen without movement. When witnessed, Bennett's vibrancy goes parallel with Gibson's affordance concept wherein the capacity of matter is its 'action possibilities' (Carolan 2009). Therefore, the potential in the vibrancy of an affordance prompts movement, revolt, and action. Bennett's thoughts on this are developed from Bruno Latour's term actant in which he develops a vocabulary that composes 'multiple modes and degrees of effectivity'.¹⁰ Bennett (2010, p. 51) construes food as vibrant matter with a transformative power, she sees it as 'a self-altering, dissipative materiality [...] It enters into what we become. It is one of the many agencies operative in the moods, cognitive dispositions, and moral sensibilities that we bring to bear as we engage the questions of what to eat, how to get it, and when to stop.' This thinking indicates the beginning of a vibrant assemblage that includes urban-making methodologies as a critical nodes for agencies and relations to be set up through various encounters as node-formers. The agency of food, with its assemblage of metabolism, cognition, ecology and moral sensibility, has the capacity to make a difference, produce effects, and summon another course of events. These assemblages have a specific relationscape in which they are formed, a concept discussed earlier through Manning and Petrescu. Hence, three relationscapes are present here; Manning's (2009) movement of matter, Petrescu's (2012) relational compositions to bring about agency, and Bennett's (2010) relationscape that is a process of matter that has been manifested into a pluriverse of bodies.

The move toward acknowledging a vibrant matter and giving it a vitality manoeuvres us

10 Bennett explains further that Latour's actant 'is a source of action that can be either human or nonhuman; it is that which has efficacy, can do things, has sufficient coherence to make a difference, produce effects, alter the course of events. It is "any entity that modifies another entity in a trial," something whose "competence is deduced from [its] performance" rather than posited in advance of the action. Some actants are better described as protoactants, for these performances or energies are too small or too fast to be "things"' (Latour cited in double quotes in Bennett 2010, p. viii).

away from an anthropocentric worlding in a vulnerable world. Bennett's asserts that the concept of vibrant matter dismantles this hegemony and it does this by 'detecting (seeing, hearing, smelling, tasting, feeling) a fuller range of the nonhuman powers circulating around and within human bodies. These material powers, which can aid or destroy, enrich or disable, ennoble or degrade us, in any case call for our attentiveness, or even "respect"' (ibid, p. ix). Her aims encourage 'greener forms of human culture and more attentive encounters between people-materialities and thing-materialities' (ibid, p. x). I sign up for her "ecological" characterization of a vibrant materialism which breaks apart binary concepts of nature and humans in an eloquent way, and opens up for possibilities and actions towards a common goal of survival and greener forms of worlding. Bennett replaces binaries with an 'ecological sensibility', in which 'deep down everything is connected and irreducible to a simple substrate' (ibid, p. xi). These assemblages are visceral to the core, alongside being political and ethical, maintaining a vital aim and a delicious one nevertheless if we place them within the construct of urban gardening. In the next section, I wish to further dismantle the importance of agency in such encounters.

Towards poethical agency

Fields of intensities – affect and relation

I have been emphasizing a study of relation – of body to space, of body to body, of moving body to plant to food, of body to time, of space to time, of time for change – relations that exchange in order to drive change. Embodying is seen as a form of agency and as an actant in this assemblage-forming process which rests in an alliance between relation, agency, assemblages and affect. Sarah Ahmed's orientation views agency as matter and not as something that is 'in' the body or the tool because the body does not act alone. I have touched upon assemblages, however the theme will be further developed in encounter 4 (chapter 6). Édouard Glissant (1997, p. 11) eloquently refers to this alliance as the 'poetics of relation', where a 'Rhizomatic thought is the principle behind what I call the Poetics of Relation, in which each and every identity is extended through a relationship with the Other.'¹¹ Glissant's relation is dynamic, it is an action which he offers up in three axioms to keep in mind as we disentangle the research ingredients further. He writes (Glissant 1997, p. 201),

'The control of an action is in its act'

'The full-sense of an action is in its place.'

'The future of an action is in Relation.'

The above axioms hold an eloquent link between action, meaning and space. The ambition of these phrases is that the relation which emerges is formed and acted upon in a particular

¹¹ Édouard Glissant is a key figure in post-colonial literature and criticism from Martinique who takes on social conditions and challenges them in poetical ways. His writings on the 'poetics of relation' have been an important revelation for me in approaching on the theme of relation.

moment, world, fiction and site. Relation in itself also becomes an action – a movement, an act and a performance. It could be said that what is a poetics of relation is actually a poethics of relating.

In modelling ecological poethics of relation, affective experience cannot be overlooked. This brings me to the shimmering affects of agency and relations. Ben Highmore (2010, p. 119) regards affect as the ‘sticky entanglements of substances and feelings, of matter and affect are central to our contact with the world [...] what is required is a critically entangled contact with affective experience.’ This entangled contact is what gives accountability to a place and the encounters have intended to provide such experiences. Affect is a knotty term and difficult concept to pin down as it relies on several orientations and emerges in cracks where light shines through. Affect theorists Gregory J. Seigworth and Melissa Gregg (2010, p. 1-2) place this suture in the ‘midst of in-betweenness: in the capacities to act and be acted upon...and resides as accumulative beside-ness.’ In their *Inventory of Shimmers*, they identify affect as,

‘an impingement or extrusion of a momentary or sometimes more sustained state of relation as well as the passage (and the duration of passage) of forces or intensities [...]

affect is found in those intensities that pass body to body (human, nonhuman, part-body, and otherwise), in those resonances that circulate about, between, and sometimes stick to bodies and worlds, and in the very passages or variations between these intensities and resonances themselves. Affect, at its most anthropomorphic, is the name we give to those forces – visceral forces beneath, alongside, or generally other than conscious knowing, vital forces insisting beyond emotion – that can serve to drive us toward movement, toward thought and extension, that can likewise suspend us (as if in neutral) across a barely registering accretion of force-relations, or that can even leave us overwhelmed by the world’s apparent intractability [...]

affect is persistent proof of a body’s never less than ongoing immersion in and among the world’s obstinacies and rhythms, its refusals as much as its invitations.’

Gregg and Seigworth (2010, p. 2) underpin this venture into the corporeal, they believe that ‘Affect can be understood [...] as a gradient of bodily capacity – a supple incrementalism of ever-modulating force-relations.’ But affect is not only limited to bodily agents. McCormack (2013, p. 3) supports this and explains that, ‘affect is by no means confined to or contained by the physical limit of bodies. Affect is instead better conceived of as a distributed and diffuse field of intensities, circulating within but also moving beyond and around bodies.’ McCormack also subscribes to the fact that affective spaces are relational and in movement. In this sense, it is part of an assemblage formation which will be taken up in encounter 4. A recurrent question in this thesis that reappears in different configurations/context/formations has been: what does it mean to practice spatial agency when relation, affect and embodiment are the main materials to explore? Affect seen from this perspective has a dynamic strength, it is a ‘force of encounter.’ In examining the ecological in urban-making, it seems to me that a hint comes from the mode of

finding ways to construct affect through the materialities discussed thus far. In this research, my deepest means to understand occurred in the moments wherein the body was present and used as a mode for inquiry, and even before landing in affect theory, this seems intuitively evident. From my understanding of affect, I will use agency as a form of commoning to provide examples in urban-making practice that place the body into a dynamic movement and relation with other bodies and with space.

Agency of commoning

Throughout the research, the concept of agency is not a new topic even though it has taken various forms, turns, assignments and roles – tropes. This is seen in the development of the thesis' interventions from phase 1 to phase 2 which I would briefly like to return to in the discussion of agency. Phase 1 interventions intended to strengthen agency by exploring means of diverse cartography modes, initiating with critical cartography through various modes of community mapping (paper 1). The first set of cartography-modes fell into the two categories which have been outlined in greater detail in chapter 1 and in the catalogue, and became the entrance points into phase 2 of the research. Phase 2 has focused on a mode of interventions referred to as bodily choreography with the intent to investigate methods for agency as becoming-withs using the body. These included walking, biking, expeditions, digital apps, edible experiences, and are examples within critical cartography revealing communities (kinships) that may otherwise fly under the radar.¹² The practices of logging their presence becomes a transparent and activated process of urban-making. Critical geographer Brenda Parker (2006, p. 479) maintains that a critical mapping process of this kind holds three significances; inclusion, transparency and empowerment. All three values create a potential in which local capacity is increased and more influential actants emerge within the assemblage. The bodily cartography embodies processes of critical mapping, providing a methodology based on improvisation that can generate a range of encounters, and worlds, within urban-making. The bodily and performativity become 'connectors' that join body with space as active forms of becoming-withs in a temporal rhythm and ecology between humans and nonhumans.

Gregg and Seigworth speak of the open and fluid in-betweenness of affect that plays a critical role in a body that is in a state of becoming-with. They see this becoming body as '(always becoming otherwise, however subtly, than what it already is), pulled beyond its seeming surface-boundedness by way of its relation to, indeed its composition through, the forces of encounter' (Gregg & Seigworth 2010, p. 3). Therefore, the spatial agent has an important role in the *in-between* zone of urban-making which is exemplified in the relational practice of Doina Petrescu. Her collective practice includes a variety of actors including architects, gardeners, planners, sociologists and residents that together form ways to research participation and co-production

12 Haraway uses the word *kinship* which goes in line with her writings on companion species, wherein the emphasis on care extends to human and nonhuman entities. Kinship also alludes that a relationship is taking place.

through staged urban actions. In doing so, Petrescu shows that such actions can play an important role in activating relational space that ‘allows for the re-appropriation and reinvention of public space through everyday life activities (gardening, cooking, chatting, reading, debating etc.)’ (Petrescu 2007, p. 4). In her task of providing a *commons*, she views gardening as the most important mode in which these relational interventions can take place (Petrescu 2017, p. 103).¹³ Commons is affect in practice. A significant aspect of gardening is that it is tactically driven and is conditioned by the bodies in relation through a common action in a space. From the simple gesture of hand in soil, a complex assemblage of the social, cultural and political urban sphere begins to emerge.¹⁴

A spatial agent who promotes relational space will realize that affective and relational forces of encounter are her only means of practice. Within the encounter, the corporeal choreography can be a way of generating spatial agency and commoning methodologies. The encounters along this journey are an embodied form of commons methodology by generating potential for a wider understanding of architecture and space. They providing an opportunity for the ‘becoming’ body to be included as a critical materiality of a space. By bringing in the body, there is a way to bring nature into the urban space. Body as nature and the urban as body, where a body forms part of the urban space rather than its mere dwelling in it. In this construct, new world formations begin to transpire.

I have come full circle to the beginning of my encounter – the assembling of worlds. The poethics of relating present in the practice of spatial agency require affect, vibrant materialism, performativity, fictocriticism, and storying. In this encounter, the intent of setting up a fiction to perform from was an exploration and development of this embodied method further. I did not only concentrate on the potential of the doing Butoh body, but I put it to a task of understanding and enacting natural farming. Frauke experienced the spatial awareness with the paper sculpture most intimately, but for all participants (students, researchers, audience), we were witnesses to the shared knowledge practice that occurred - whether it was being modelled, watched or enacted. The film appended to this encounter brings up questions of what the actual method does for space when you put aside the highly-aestheticized quality of Butoh. For the Butoh performance, was Frauke more concerned with the concepts underlying the research work or with her skill, aesthetic and performance style? As an observer of the performance, it was difficult to capture without performing the space myself. Performance is different from training as it contains a

13 Chiara Tornaghi also views the act of urban agriculture as a form of public commons. She explains, ‘This term the “commons”, is intended to cover a wide range of resources that are collectively owned and/or shared and of the benefit to a community, and which includes environmental resources, such as land, water and air, and cultural resources such as specific forms of knowledge and technology’ (Tornaghi 2012, p. 351).

14 Petrescu formulates this emergence as a particular form of feminine subjectivity in the city that is built on creativity, imagination, co-production and engagement (Petrescu 2017, p. 103). These forms of commoning emerge in her projects and sites (ECOBox, Passage 56, R-Urban), in which a relationality is being weaved together through ‘projects that teach patience and attention’ through the reproductive work involving what she refers to as gardening agencies.

different tension; When performing, the training supports you. When training, the performance drives you. This was evident with the dancers in the Butoh summer training (encounter 1-chapter 3) who could not shed their performing skin when we were training. However, from my reading on performance theory, I can make a clearer assumption in terms of the body and space relation through Butoh. I gather that the Butoh body critically analyses distinctions between time and space as it is an enactment of both simultaneously. Butoh can deal with the perceived interfaces of body time space since corporeal rhythm already deals with these perceptions through metabolic processes. As behaviour is embodied, it is the body that allows for a metamorphosis to take place depending on the perception. This is difficult to assess in terms of results, but in order to have a closer embodied understanding other than theory, I began to train to explore the potential in Butoh for studying space. Through imagining, performing and developing alternate relations with space, Butoh explores the materialities of space and vibrant matter that surrounds the body.

In this chapter, the body has helped in bringing the pluriverse of relations and worlds to the surface by making them visible and accounted for. I have used storying and worlding to arrange an infrastructure to think through with. The opening interventions into this encounter 2, Paperscapes and Butoh performance, have explored relation-making using the body in a configuration with fiction, space and time. The theoretical neighbourhoods of worlding, performance and agency have enabled me to manoeuvre in the embodied practice. They formed three modes: to create worlds towards as an ethical infrastructure to manoeuvre in, the use of performance as a critical fiction, vibrant materiality and relation-making practice, and finally, providing spatial conditions and assemblages that generate spatial agency through meaningful affective experience and action. I ended the chapter by highlighting practices in the commons that drew back to the initial research investigations around gardening in order to connect the artistic practice and theory back to urban-making. The next encounter will develop the hinted at elemental mode of worlding as an *atmosphere*. Chapter 5 will use weather and clouds to imagine with for how the body as an atmosphere can create agency to further natureculture relations.

chapter five

encounter 3 Clinamen atmosphere | imagination

The encounter in the city of Clinamen is an immersion into Body Weathering. This encounter explores atmospheres and weathers of a diverse variety; theoretically, corporeally and artistically. We embrace both as spatial materials, visual delights, curiosity drivers and artistic matter for stirring the imagination. The choreographed practice now shifts to a Butoh practice entitled Body Weather which deepens the corporeal metaphor to align with becoming an atmosphere. The intervention included two seminars and a full-day workshop of six phases. The first four phases concentrated on the body work in Body Weather practice with Butoh choreographer Carmen Olsson. The fifth phase was an artistic writing exercise with poet Morten Søndergaard that rendered text used in the final phase six, a performance. The chapter, an encounter in Clinamen, visits four supporting theoretical neighbourhoods; Clouds and weather as metaphors to think with, the task of imagination and atmosphere in critical spatial practice, the use of sensorial theory in urban-making, and the ground for temporal spatial thinking.

As we embark on this third leg of the journey, I invite you to watch the film essay: Body Weathering (Orrù 2017e).

Instead of thinking of the inhabited world as composed of mutually exclusive hemispheres of sky and earth, separated by the ground, we need to attend [...] to the fluxes of wind and weather. To feel the air and walk on the ground is not to make external, tactile contact with our surroundings but to mingle with them.

(Tim Ingold 2011)

Body Weathering

nebular intentions



Body weathering

Values of landscape, body and weather

Producers: Carmen Olsson (Butoh Dancer), Anna Maria Orrù
Seminars: Dan Ringgaard (cloudy weather), Anna Maria Orrù (body weather)
Artistic writing workshop: Morten Søndergaard
Date/Time: November 1, 2015. All day 10-21:00

This intervention took place at the AHA festival 2016 as a continued exploration into my embodied research using weather and clouds to set an atmosphere with the body. The overlap between clouds, weather and the body is a strong relation-making endeavour. Clouds and weather are an atmosphere that blends together using the Body Weather as a mode of inquiry; the body with the environment via the weather.

The day began with two seminars (Orrù & Ringgaard 2017a); One by Dan Ringgaard, professor in literature at Aarhus University who took us on a journey through clouds and their presence in the art and literature fields, the other by myself Anna Maria Orrù to prepare participants into the concepts underlining the day's interventions and Butoh methodology. This time the exercises concentrated on Body Weather choreography with dancer Carmen Olsson. Following the seminars, students were immersed directly into the exercises for the entire day through six phases that meandered between outside and inside, bringing along the cloud as a metaphoric gesture to practice from. The first four phases included the body work associated with Body Weather choreography. Next, in phase 5, students were asked to converse with their clouds in an artistic writing workshop with Danish poet Morten Søndergaard, and finally in phase 6 at the end of the day and as a part of the festival programme's poetry evening, we performed a fraction of the day's exercises based on a cloud conversation read by one participant, Danni Tian.

The intervention formats weaved different artistic approaches with which to explore Body Weather; through seminars, exercises, letter-writing, performance in order to explore clouds and weather in all their forms, shapes, imaginations and moods. We began the day with the following driving questions:

How can you curate a corporeal poetics with architecture using Body Weather?
How do I put my body and the user into urban-making through the atmosphere-making practice of Body Weather using clouds to imagine with?

Two seminars

The following texts are a collection of ideas taken from the two seminars Cloudy Weather and Body Weather (Orrù & Ringgaard 2017a) with the intention to give the reader an immersion into the world of clouds and Body Weather practice. The text is a poetic construct taken from transcripts to relay briefly the conceptual thinking that participants were introduced to. Some fragments of the text are inspired by various artists, thinkers, philosophers and writers shown in parenthesis, slightly justified further right from the text (e.g. ‘inspired by Alfred Steiglitz’).

Cloudy weather

Seminar by Dan Ringgaard

How can we think about weather?
How can we think about clouds?
What kind of opportunities do clouds give us
they make us imagine all sorts of things
not floating in a line
an alternative morphology

(inspired by Alfred Steiglitz)
they are tropes, swerving about
they are Clinamen
an unpredictable swerve of atoms

a cloud can be used in a spatial kind of thinking
consider cloud as having intensity, having affect
what if architecture, cities, buildings were a cloud?

(inspired by Walter Benjamin)
We experience architecture inside and beneath, and around.
We usually don't just stand in front of it, at a distance, feeling spellbound.
We enter in

Things are experienced in distraction, not in concentration
The weather is experienced in distraction.
it is usually just around. It is our atmosphere.
Weather is a medium, it stitches together the texture of the land. It stitches life together.
How can weather be developed in a phenomenological approach?
Being with your body in the middle of atmosphere
Weather as a medium that can transform you into something else
Body weather can be a medium
Nothing is more atmospheric than the weather
You are always in the middle of it

(inspired by Lisa Robertson | Luke Howard)
The minute you name a cloud, you see it as an object, and a science begins

Wonder. Wonder happens when you decontextualize.
We are struck by wonder
We are struck by weather

(inspired by Peter Durham Peters)

The sky offers a media, a vessel and messenger, in which we can grasp our worlds.

(inspired by Søren Kirkegaard)

I am a cloud, we are in a cloud.
I was watching at a distance and projecting myself into you
now, I am an archive, an ambiance.

(inspired by Tom Waits)

But tell me, how do you feel today?

(inspired by Johanna Drucker)

Weather is commonly used as a metaphor for feelings.

I feel a bit under the weather
I feel over the moon
Things rise in us and disappear
Two forces collide and something happens
Feelings are unpredictable, like weather.
Weather is an emotion, but it also is a motion
as if something bodily

(inspired by Marcel Duchamp)

Weather is a Duchamp 'readymade'.
It reads a geometry book, tearing out pages it disapproves of.
How does the weather read you ask?
certainly, not in a straight line, because it reads in time and coincidence.
It reads with the body.
It is a bodily reader

How do our bodies read weather?
How do our bodies read the environment?

Body Weather

Seminar by Anna Maria Orrù

Butoh practice can be an individual reflective space - with space
but also, it can be a collective practice - a swarm
turning into a collective reflection

(inspired by Hamish Fulton and Francesco Careri)
walking as a medium, as a media, as an art, as poetics
walking as an individual or collective practice

swarms in nature, swarms as a human species
swarms of clouds, swarms of buildings
it can be used to point to ecological malfunction

(George Lakoff & Mark Johnson)
conceptual systems grow out of our bodies
meaning is grounded in and through our bodies
this is a philosophy of the flesh, of the corporeal

spatial relating comes through the body
understanding space using the body to navigate through

(inspired by Monica Degen)
the body as an urban interface, folds and unfolds
it is in flux
the body digests surroundings in relation to the environment

tactile contact is an ever-changing kind of experience
allows a positive realm of ecological viscosity

(inspired by Michael Carolan)
tactile space embeds and embodies us
it nurtures new intelligibilities
we need to be imaginative,
exhibit a force of imagination

a metaphor may indeed help grasp the complexity
a dynamic metaphor – performed
a mimesis of nature

body becomes an active media in design
a container for potential and possibility
for spaces that call for a form of engagement
go garden, go dance, go Butoh
build a thickness for an embodied architecture

Butoh
started by Ohno Kazuo and Hijikata Tatsumi
a body transformed into a state of high alertness
a monitor for sensorial interfaces
that arise inside
and come to the surface
an awareness of space, unknown to the body
Butoh and Body Weather are related
the latter escaped from the first
a Body Weather practice comes from Min Tanaka

(inspired by Carmen Olsson)

both practices are a struggle to apprehend
what is this?
how can I grasp it deeper?
how can I feel it deeper?
everything you consist of, becomes more sensible
to yourself, to other elements, to bodies, to the outside and inside.
it is the effort that matters and what it will transmit
not how high you jump, not technique.

The body. What is the body?
it's my body, this is my body.
this is my nature
Weather is constantly changing, like our bodies
We are Body Weather
Body Weather is not a step by step
it is intention
it is corporeal rebellion and intensity
it is metaphor and a mimesis
create your own notion of what the body is in space,
negotiate with space
immerse within the metaphor
mimic a stone for a day

body and space discuss
as they dwell together, discuss the weather
they write letters to each other
how is the dialogue shaped, who speaks first, and what are they discussing?
one speaks and one receives, we reciprocate
an intimate reflection and exchange
the letter is a (per)forming script
a letter to our Body Weather

A day workshop

The workshop explored the body as a medium for an embodied approach to spatially situated knowledge in urban-making. Each intervention was set into the five corporeal configurations (phases) that led into the writing exercise and performance. Each used the weather to think and practice with using the dynamic metaphor of clouds. Components included both indoor and outdoor practice so that temperature, sounds and materialities composed a heterogeneous experience and spatial contact. The intention of the seminar was to set the atmosphere for the day, similar to Fukuoka's text in the *Paperscapes* (encounter 2 – chapter 4) exercise but from an artistic platform of cloud presences in art and literature. My seminar introduced students to Body Weather and Butoh choreographies as potentially being used for urban-making. The Body Weather workshop with dancer Carmen Olsson explored the sensitivity of body and space, inside and outside. The workshop body work explored how to use the body as a media for an embodied approach to spatially situated knowledge. Olsson's interest with space comes from her having brief origins and training in landscape architecture, and the day's workshop allowed us both to explore potentials for Body Weather and urban space matters to intertwine. Body Weather consists of a number of practice skills. For example; mimesis, elements of interaction, transformation and reflection, elements we use to navigate in, through and around our universe(s).¹ As body and space dwell together, an exchange is constantly taking place. The workshop intercepted this dialogue, both through practice, writing and performance, and intended to turn the volume higher on what was being exchanged. We practiced to manipulate parts of the body, release other parts, and allow new parts to enter in and move us. We reorganized connections and relations, both to the inside and to the outside of our body. On the inside, I asked participants to follow their reflections and reactions when doing the practice. On the outside, I asked participants to trust the space surrounding and allow their bodies to become choreographed by the space. We activated the body to absorb the external landscape. Immediately after the seminars, the participants were asked to start Body Weather practice from their seats. The following series of phases describes the day's workshop and events.²

1 This is an intentional reference to 'universe' as the thematic for AHA festival 2016 was Uni-verse.

2 Participants included; Chalmers MA students, a teacher from the Department of Architecture and Civil Engineering, a PhD student in textile design, students from The Academy of Design and Craft (HDK) at Gothenburg University (GU), a cellist, an artist and a theatre performer. They are: Linnea Bagander, Eva-lotta Holby, Ulrika Jansson, Johannes Luchmun, Juste Peciulyte, Giulia Pes, Riccardo Pes, Danni Tian, and Julia Winroth. The seminars were attended by other members of the public and students.

Phase 1 – Blind Chairs

Thematic: Learning to trust the body. Removing the visual. Body as atmosphere.
Location: Small studio space indoors

Exercise: Blindfold yourself and sit still. Settle down. Once you are ready, slowly move to another place in the room, and sit down again. (15 minutes)

Carmen Olsson asks participants to blindfold themselves and focus on their body and the chair that each is sitting on. They are absorbed in the space surrounding each chair. Slowly when they are ready, participants find their way from their chair to another chair. When arriving in the next chair, they are asked to bring the concentration back to the body rather than the space and their movement. This is an undulating symphony of movement, concentration and exploration. The intention of the exercise is to shift the focus from the body and the chair, to the next chair. To focus on the things around the body and what needs to be done to shift to the next chair. The focus manoeuvres between concentrating on the internal body and the external atmosphere. The benefit of blindfold work is that it brings up a humble contact with space and erases a certain amount of shyness that comes with doing a new movement exercise. Also, it brings up the personal and intimate inside of us as it is a lonesome exercise, done by oneself, but amongst others who are in the same situation. Different participants react differently in this intimate space; some are more experimental and move comfortably in the darkened space, while others are very careful and have slower movements which become more exact. The movements are very simple so the emphasis is on challenging one's body in different manners to surprise and engage the body in new ways. The overall aim is to get the imagination and fantasy flowing by focusing on the body.

Phase 2 – Blinded, mimicked and observed

Thematic: Duet work blindfolded / observer. Explore and reveal space using full body sense
Location: large atrium / loft space indoors

Exercise: You need to be two people for this exercise and do not speak to each other. The work begins wherein one person is blindfolded while the other observes. The observer is not passive, but must be attentive. When you are the observer, try to shadow your blindfolded partners movements and keep them safe. When you are blindfolded, explore the space using your full body. Crawl surveying the space with your limbs. Activate and use all your senses; taste, listen, and touch everything. (30 minutes each)

The work in a duet intends to provide a longer period of time in the embodied immersion from the perspective of being blindfold and as an observer. The role of the observer is not passive or idle, it is to be attentive and almost mimicking the other one's movements. It requires creativity. The observer is not to be over-protective either and to keep a distance from the blindfolded so that she/he can feel completely alone and free to move. The role for the blindfolded is to reveal the space with all their senses using their full body to explore. The choice can be to move fast or slow, but slow is recommended because it allows for more impressions to enter. In the blinded

Phase 3 - Slow swarm and slow line

Thematic: slow down to be more reflective. Collective movement, imagining and awareness
Location: loft space indoors above atrium

Exercise: Part 1: Slow swarm movement and slow line movement forward - The first part of this exercise is a slow-walking in a body swarm. Walk slowly at a rate of 1cm per second in any direction of the room. Concentrate on the skeleton and how it manoeuvres; the neck, the lining of the spine, the torso posture, the hips, the shoulders, the length of steps, how the foot meets the ground, the shoulder's position, how hands, arms and hips are moving.

Part 2: The next part of this exercise is to align bodies facing forward in the long edge. Walk slowly at a rate of 1cm per second in a line forward with another body if available. Focus on an imagined sky with clouds indoors. Bodies imagining and relating together to a very slow-moving cloud.

In the first part of the exercise, Olsson's instructions for moving were to be very aware of the speed of the movement; slow down, reduce the speed of walking. The participants were to create an image of the body moving at 1 cm per second, but in imagining this, simultaneously they must perceive the body walking at a normal space. The contrast between the imagined speed and real speed allowed the participant to hold onto something concrete to imagine with and to keep their balance. In both instances, there was a keen interest to develop the cloud metaphor alongside.

Phase 4 - slow cloud line and collective mass

Thematic: slow down to be more reflective. Imagining as a cloud
Location: outdoors. Cloud line (open piazza-like space), cloud mass (steep wooded hill)

Exercise: Part 1: In the first part of this series of the exercises, line up outdoors in an open piazza-like space. Face up towards the sky and horizon, and immerse the body similarly back into the slow-motion movement of phase 3 at a rate of 1 cm per second, moving forward in a collective movement with the bodies next to you. Try to understand the temperature and sound of the experience.

Part 2: In the second part of these outdoor exercises, arrange the collective of bodies dispersed alongside a wooded hillside that is inclined upwards. Each participant must have enough space to totally feel free to move around. Next, they must pick a cloud persona, and then re-enact the cloud character as each one slowly moves up the hill.

In this two-part intervention, many parameters had changed from the indoor practices; the outdoor temperature had dropped compared to the indoor space, there was more public individuals around to observe the participants, and the soundscapes had significantly shifted. In the first part of the exercises, tram sounds and cars dominated the sounds, and a strong wind blew around each body. There were many people walking by but few stopped to observe. In the second part of the exercises, the trampling on crunchy leaves created another soundscape. Each

participant grasped a cloud quality to imagine with so that it gave them support and they felt comfortable with their cloud metaphor; something small, round, spongy, or large and spread-out. Their imaginations transformed them into their favourite cloud characters, and they proceeded to slowly move up the hill. The cloud bodies moving up the hill formed a graceful slow-motion movement that was mesmerizing to watch. This collection of cloud characters was expressed in their movement: happy, heavy, sad, bouncy, some reached up high, others stayed down low. They included (descriptions from participants):

- A light (weight) and quality-filled cloud. The light (visual) was a vital part of being the cloud.
- A vaporous organic cloud, and smooth. Every obstacle met, there was the possibility of smoothly turning around them. Could it almost be like slime mould?
- There are no linguistic descriptions for this cloud. Solid could be the first word that arises. There are so many memories of cloud movements that I can refer to. My conscious moves consciously from each part of the body, and when the conscious arrives to that part, I make a movement. Was there a sound for the cloud? The sounds were received all around the cloud, at times close and at times far. But they were fragments, just like the movements.
- This cloud was being destroyed by a very strong wind, but the cloud was stubborn.
- This cloud was holding on to the ground, slowly multiplying.
- This cloud was heavy and filled with rain, dark. It was affecting the environment, moving and pushing everything in its way. When it reached the top of the hill, it could lighten up.
- A summer cloud, quite tall and looks slightly threatening. Dark and bumpy. Scary looking. Clouds dress up or down sometimes.
- This cloud was powerful, heavy and strong. A positive powerfulness. It could roll and keep quite low on the top of the hill. The movement was difficult to maintain for the body.

Carmen Olsson finished the exercise speaking about an the significance of slowness. She explains that when the body is very slow, this is perhaps when the bodily awareness speeds up. She states that, 'to be alive in all parts of the body, means you have to quickly scan around and into your body all the time. The slower the movement, the more alert the body becomes inside.'

Phase 5 - Correspondence with a cloud

Thematic: Writing as an artistic embodied practice

Location: indoors. Small studio where seminars and phase 1 took place.

Exercise: After the day's practice it is time to write a letter to your cloud character that you met on the hillside.

We wrapped up the day's practice through artistic writing, scripts with poet Morten Søndergaard that captured the vocabulary and sentences of the dialogue between body and space (body and cloud). The participants wrote to their cloud characters, and also imagined their answers back in text. They spoke to their cloud from a place within their body that had reflected all day. A guiding question was how is this dialogue shaped, who spoke first, and what did they discuss?

The letter on the following page is between the poet Morten Søndergaard and his correspondence cloud. It is one out of a series of letters written at the end of the day, and printed here with his permission. To briefly explain, the method of letter writing has become an avid technique for each encounter in my research especially given the voyage-metaphor and the correspondence with the Deer in the headlights. I began writing letters to the Deer in 2016, when I prepared a lecture for Röda Sten Konsthall in which I was asked to draw the audience into my work using the exhibition's interpretation on the Anthropocene by Turkish artist Pinar Yoldas. A letter can have two intentions: reciprocity and intimacy.³ Reciprocity is the idea of the giver (speaker) and the receiver. Intimacy is a moment for reflection. In this intimate closeness, there is an opportunity for an awareness to arise, a new observation can be made into the knowledge of the subject writing to themselves. These are similar characteristics present in Butoh and Body Weather practice too. Therefore, a letter can also be viewed as a correspondence with oneself. A letter can be a form of liberation, a setting loose of knowledge – what is known is written in a brief reflection. Letters are a slow dialogue which allows for all sides to be heard. It is similar to the idea of encounters, in which one encounter holds many encounters.

This letter writing becomes another form of communication with our cloud metaphor, which can be seen as a dialogue between the body and the different spaces in which participants were immersed during the workshop. Letters are preserved to become an archive and a recollection. Letters are considered to be a writing tool and a form which is accessible to anyone. In Swedish, the word letter is *brev*, meaning short. It is something that is a small capsule and it is controllable, complete, and able to be finished. It has a beginning and an end, and another chapter hopefully if the correspondence continues. It includes long periods of waiting, imagining and hoping. We hope for good weather, we hope for rain and we hope for a letter response.

A letter to cloud

What would it be like to write to a cloud?

What would it say back to me when it responds?

Does the cloud know me well enough to write back and say anything at all?

³ I am attentive to the increased letter writing 'business' in artistic research as it seems to have become a 'standard' method in this research field. I do not wish to open a discourse on letter writing but I would like to point out that the letters in this research are meant to be informative about the way I work in line with the voyage metaphor I am using.

Dear Cloud,

Thank you for drifting away. Thank you for disappearing and reconnecting to a totally new front system of clouds. Now the sky is clear, but I know I am still a little cloud.

So now I can see you again. Childhood. Drifting skies. Moon behind black clouds. Now moon on afternoon skies. Light.

I dreamt about you as a kid. I dreamt about you being a mountain, so I could go on cloud holidays. Now I live on a mountain. My mountain has become a cloud. You are the mountain I live on, dear cloud. Thank you, because you let me live on you.

All the best,
Morten

Dear Morten,

Thank you because you live on me. I have changed colour from white to green. There's something I have to tell you: couldn't you please slow down a little? make you slower, like a cloud. Not light or wet or crystal. But slow down.

Follow me sometimes, and sometimes my shadow hits you. My slow shadow.

Put yourself in the shadow and follow me. I can rain a little on you if you want, or snow.

But slow down in me.

Maybe I can let you glide down through me, and I catch you with my cloud hands and put you back on the mountain that is me.

All the best from,

the cloud

Dialogue with cloud

流云，你好实
Cloud, you're so solidified

是吗
Is it?

我是空的，很久了
I'm empty, for long

不一定
Not quite

我必须一直动，来醒着
I have to do movement every second, to be awake

没有，你知道那句诗（树欲静而风不止）
No, you know that poetry

你究竟是一直在变，还是一直在动？
Are you changing all the time, or instead, making movement?

[没有回答]
[No reply]

我以前以为你背后的蓝是天，你是浮云
I used to think the blue behind you is the sky, you are the floating cloud

可以这没错
It can be, all right

但物理竞赛残酷地说事实不是
But physics competition brutally told that it was not in fact

但你享受物理竞赛，并从中获利
But you enjoy the physics (competition), and benefit from thy

后来我成为了没办法醉倒的建筑师
我恐怕我才是浮云
你是实存，因你是永恒的主体的一部分
Later I became the never-drunk architect
Am afraid I am the floating cloud
You are the existence, cause you are partly the body of eternity

实际中，
妳只能反射妳自己的虚荣、伪装、贪欲、邪恶
而对此除了害怕，就是发现
In ordinary truth,
You are only capable to reflect of your own vanity, disguise, greedy, evil
On this, either fear, or discover

Phase 6 – Poethic Performance

Thematic: brief dissemination to the public of our cloud learnings

Location: indoor atrium space

Exercise: You will need an audience for this exercise as you are to perform your cloud line for them. The performance is best to take place at night or in a dark room in order to surprise the audience. They must be unaware that your cloud line is present. Come in from the back of the space and into a light that will be shining on the floor between you and the audience. Choose a cloud letter to read out loud as a background script to the cloud performance.

to be a line
one and one
moving forward very slowly
linked together
delighted from the obscure
shades emerge

(Body Weather Questionnaires 2016)

After a long discussion and reading cloud letters, the participants settled on the letter that stood out in its peculiar and poetic form. While all participants had written a letter to/from the cloud, one participant decided to form an open dialogue with her cloud. The letter was written in Chinese (previous page). This letter became the background atmosphere for the performance that was part of the poetry-evening programme.

Slowly, six of us lined up in the dark performance space. We were not positioned on the stage of the poetry evening, we were at the back of the large atrium open space about 10 metres behind the audience. The room was entirely dark, and we had shone one small spotlight on a space roughly 4 metres ahead of us. The poet finished his piece at the front of the stage, and from the back of the atrium space, a cello began to play eerie sounds – the atmosphere changed in the room. Silence. This had been the contrast we had hoped for. The audience slowly recognized that the performance was located somewhere in the back of the atrium space when they heard the cello sounds, but they still could not see us because we are all in the dark – cellist included. The cello stopped playing and Danni Tian began reading her cloud dialogue in Chinese from the side-lines of the audience. She was visible to them. The audience listened, shifting their gazes between her and the back of the room, they waited for something to appear. They noticed that a sudden spot of light had occurred on the floor a few metres away from the rear row. Suddenly, out of the dark, six bodies emerged, moving forward very slowly with one foot slithering past the other. It was a strong presence, these ghost-like bodies that moved towards the floor light. The performance had dramatically altered the atmosphere in the room. The silence of the space had seemed to determine its own materiality and had grown its own thickness and presence as if it was itself an object and body in the room. And just as the cloud uttered its last sentence, the figures entered the puddle of pail orange light on the floor. Danni folded her paper and left the room.

Cloud-like intentions

Clouds very high look
Not one word helped them get up there
(Ikkyū 1989)

Throughout the body workshop and performance interventions, we have been following weather through clouds; body clouds, clouds bodying, clouds of bodies, bodies of clouds. All configurations can be assembled in many ways but all are very much aligned with the practice of Body Weather, which is the piloting practice in this intervention.

The interventions investigated relation-making between earth, sky, body and space corporeally and artistically. For now, there are certain spatial materialities that begin to emerge connecting the two thematics body and cloudy weather. These include particular constituents of weather that link body to spatial practice; relation, meaning, atmosphere, imagination, and flux as environmental conditions. The next section of theoretical neighbourhoods will unfold and underpin the situated practice as ‘nebular intentions’.

In investigating through Body Weather, I query whether the practice can create an atmosphere-making practice which becomes motive for my investigations into poethical environmental behaviour. A few driving questions start to emerge: What kinds of opportunities do they give us to think about bodies and about body weathering in terms of such awareness and place attachment? And, what if the body in action created an atmosphere rather than space dominating body and behaviour by its supposed ambiance?

Feedback, experiences and observations

Intervention: Body weather and cloudy weather
Film: Body Weathering
Motives: Embodied Imagination that creates relation to atmosphere – ground and sky (nonhuman elements come to the fore)
Main theoretical neighbourhoods: Classen and Degen (senses), Fischer-Lichte (performative spaces), Ingold (weathering), Nijs and Janssens (imagineering), Pallasmaa and Böhme (atmosphere), Peters and Diaconu (cloud-thinking), Purdy (environmental imaginations)

In this intervention the use of Body Weather became a more imaginative endeavour when the choreography was linked to using clouds and weather as metaphor to work with during the day. It became clear that the metaphor was important in the embodied methods. Imagination and atmosphere, included with the sensorial, are equally critical methodologies which extend the internal body into the external space. In doing this, the atmospheric and wider body makes an vital connect between action in the space, behaviour, senses and imagination.¹ In the Body Weather, the attentiveness was both projected to ground, to clouds and to sky. The body in this instance became an atmosphere, and not merely a subject as was the case with the Butoh body in

¹ In terms of the wider body, it is the body that extends itself into the external space, also referred to as the atmospheric body. See also (Empathy Media 2017) filmwork on encountering.

encounter 1. I found that in giving the participants a metaphor to work with, the clouds, brought a level of imagination to the workshop that was not present in encounter 1 which had focused on the body work.² Feedback (Body Weather Questionnaires 2016), provided a clear correlation between movement and experience brought up by the relation and interaction between the senses once again. In terms of creating a bodily atmosphere, one participant described this as becoming a floating body with no particular mass but simultaneously becoming closer to oneself internally and to the space. Such changed perceptions of space allowed for new impressions and insights to appear in the behaviour, movements and thinking patterns. This was also described as a creativity and energy entering the body. There is an interesting correlation here with Butoh theory where one erases the social body, removing the ego, to become an empty body or in this case – a raw state. One participant writes that this body state is very alert, it is a slow and sensitive state ‘with a relation between curiosity, ordinary things and objects become unfamiliar and sometimes surprising, and some kind of thankful feeling, the object or stimuli is just there without any obligations’ (ibid). This slowness is the main activator, a practice of proficiency, absorbing and exaggerating the attention and energy used to explore space. This state seems to reveal unfamiliar experiences of the surrounding, it is an out of a comfort zone experience and it renders the unknown-known. The unfamiliar is a very important aspect of Butoh practice, and I have noticed this in my own training. To know things again, we must unlearn and make them unfamiliar, in order to recognize them again for the first time. This is a dynamic form of imagination, a force.

When asked about material surface experiences, one participant was excited by the gesture of touching surfaces when blinded because it gave more room for the imagination to seep in. Another referred to it as a ‘magnifying glass of the senses’ (ibid). She explained this as an awareness of spatial tension. Participants noted that the misunderstood tactile experiences took more time and space for the senses to discover what the materiality might be. The participant explained, ‘When I didn’t know what texture I was touching, the temperature and smell was automatically amplified’ (ibid). However, this is a matter of prolonged practice too. Butoh practitioners Frauke and Olsson, through years of practice, are able to conjure up this awareness and deepened reflective state in a much more collapsed amount of time. However, the important learning is that urban public space can sustain the potential to practice awareness everyday that renders inhabitants more and highly sensitive to surroundings, and thus to the environment. An enhanced ethos emerges but it comes through repetition and everyday immersion.

In the line movement exercises, an interesting aspect of time surfaced. In slowing down of time to 1cm per second movement, there was the potential for an acute precision to the space and movement with body to emerge. Time was based on the tempo of the body and of the movement. Furthermore, moving individually had different affects than moving collectively. For some participants, the collective movements created stress as they became worried about

² To clear up confusion, Body Weather is a type of Butoh practice and I use the word Butoh in this section to allude to the practice from encounter 3.

'keeping up' with the others. For others, the collectivity was comforting, a feeling of 'being in this together.' Both reactions can play important roles in spatial-making.

Taking the day's exercises and creating a performance was difficult as feelings of shyness emerged, however the darkness in the space indeed helped to alleviate this. One performer explained that she was extra sensitive given the day's exercises. Another performer described the event as a ritual of ultimate beauty, a concrete accomplishment to share with the audience from the day's workshop. The full day's practice made one performer feel prepared, not scared, and he felt like merging with the atmosphere of the space through the performance: 'the relation to other performers, the rhythm of the music and the poem, the dispersed light rays that we were entering' (ibid).

I asked participants how the bodily sensitivity and awareness was significant to their work and/or study. The Butoh allowed for material in dialogue with the body especially when working with the hands to discover the space. One participant from architecture noted that architecture is too non-sensual, and that sensual stimuli have the potential to 'open a realm of reflection in our otherwise busy and hectic life' (Body Weather questionnaire 2016). Other participants confirmed that bodily sensitivity and expression can foster new expressions of architectural representation in the designing process. I also wanted to know what role corporeal theory played in embodied methodology. All participants agreed that the bodily engagement and practice played a very important role, providing a deeper spectrum of knowledge which text alone could not reach. The practice builds theory and not theory alone, and the bodily engagement generates insights and knowledge from the inside, whereas theory only supplements, define processes and techniques, and forms or formats the exercises.

Intermission

A letter from Clinamen

October 21, 2016

Dear Deer,

Clinamen is located on a very high altitude on Mount Unknowing, so the climb up took several hours. As you enter the city, you realise it is in the clouds. Actually, it is made up of clouds as the main form of infrastructure. Upon arrival, you are given a body weather suit to help you float around. The clouds help you and hold you by your hand. They escort me and I listen to their guided instructions. They tell me how wonderful Clinamen is, that it is a medium of possibility and how important they are for weathering. They tell me that their signs will alert me to weathers to come. I know deep inside, that they are really as important as the say there are. This is no fluff cloud talk.

The other strange thing once I put my suit on, is that I could no longer tell the interface between my body and the space. I was blurred. I became an atmosphere. I feel as if I belong in this aura.

There are four neighbourhoods in Clinamen and they are difficult to find as they are all immersed in the fog, and so I make my way to keep ahead of the light. The first neighbourhood I visit is Imagination. It is very windy in this neighbourhood, almost as if the wind is trying to blow through me and extend me out into the landscape of clouds. I feel as if I have been forced to imagine with my body. There is only one street called Imagineering. However, the only way to move down it is to be in constant performance - I have to pretend to be a cloud. Therefore, I have to unknow myself, in order to know myself again. I am deconstructed. The best way to complete this task, I find, is to be an atmosphere; to fill the space, to become a constellation of the things and bodies that are around me, and to make sure I understand my affect on all these bodies with me in the neighbourhood. It is very exhausting, so I decide to move on to the second neighbourhood, Senses, because I think it will give me the tools I need to complete my task.

Here, things are a little bit more grounded. I am moving through the space using my senses. I realize this is not so difficult as I had similar instructions from my host in the city of Alba. I know how to find my way through here. My perception goes through the clouds, as here there is difference from Alba. Here, my senses become an atmosphere too and everything is sensing. I am sense-making. The most important sense I find is touch, it is the one that allows me to have a very direct contact with each cloud surrounding me. And somehow within this thickness of senses and clouds, I realise that I am stepping into another time and that I have entered the third neighbourhood, Time/Space.

In Time/Space, the temporal is altered. Time is not time anymore, and it is certainly not linear.

Time is a swerve of atoms, a Clinamen. Time has also become an atmosphere, an empty space, an in-between. The seasons change rapidly in this neighbourhood, it is almost as if they are demonstrating themselves to me so I can see how important they are to experience with. I have gone through three already, and there is one left - Summer. This makes me glad as my body has in sequence with this changing seasonality, and my metabolism is in sequence with the seasons. In order to keep still, I have to coincide my body with the season so that I can keep feeling grounded.

And then there is a sense of rhythm, a rhythm almost as if it is a geography of what happens. This everyday rhythm becomes a topography that I can traverse. And in the end I arrived in a beautiful garden space called Ma. I'm not sure what it is; a garden with light, with peace, with an encouragement to move me. It is a space full of potential. It is in-between everything. It has so many ways of understanding. It moves me along from one place to the next. It divides everything. It maintains an absolute darkness, but somehow I find that it is light too. Perhaps the darkness is about the unknown. It helps me to sense the moment of the movement from one end to the next of Clinamen. Though I know there are no ends to Clinamen, and it is not a city with a linear start to finish, it is definitely a place where life is lived.

I come to know that through my visit to Clinamen, I have learned that in order to ground myself again, I need to tie earth and sky together.

Sincerely,

Anna Maria Orrù

Ps: As usual, my research travel notes are accompanying this letter. I have also enclosed some vapour from a cloud as a token of the visit and a reminder that sometimes the best place to go, is up into the clouds.

Theoretical neighbourhoods

Weathering – nebular intentions

A synopsis of Body Weather choreography

Body Weather 身体気象 / shintai-kishou are two Japanese characters.

踊り手こそがまさに身体気象的だ。いつでも中心をぼかしたり、自分がそこにいながら自分のからだから外れるようなことが理想だと思う。

‘A dancer indeed embodies the “Body Weather.” An ideal state of a dancer is that his/her center is blurred, and that his/her self is outside of the body’

私は場所で踊るのではなく、場所を踊る。

‘I dance NOT in the place; I dance the place’

(Tanaka [no date])

I have been using Body Weather choreography in my research as it blends together my thematics of inquiry; the body with the environment (the weather). The originator of Body Weather and student of Hijikata Min Tanaka (2006) clarifies that the choreography can be inspired by a myriad of metaphoric components in which, ‘nothing is choreographed. No concrete movement is predetermined or composed. The progression of the dance is not preconceived either’ (ibid).¹ Hence, it is a dance form that is guided by the materiality of space which renders it different for every situation, metaphor and space. Min Tanaka, explains the rebellious trajectories in Body Weather thinking, ‘The main point was to declare “We ARE different”, not “What we DO is different”’ (ibid). For Tanaka, the idea to connect body and weather allowed for a leap in imagination and creative activities (Tanaka 2007).

Imagination is a corresponding approach throughout all the embodied methodologies (encounters 1-4). There are several interesting correlations also between Body Weather and

¹ Tanaka began his Body Weather ‘laboratory’ in 1985 on a farm in Hakushu - Yamanashi prefecture, Japan. Both Butoh dancers Frauke and Carmen Olsson have held residences in his training programme.

farming as the skill is practiced in the act of farming which began as the catalyst in this research. One advantage in this is that farming builds body strength and endurance which is a critical aspect of Butoh. Another advantage is that farming provides food, a form of survival, food to feed the dancers and maintain a self-sufficiency to a certain extent so that they can keep practicing their art-form. A third advantage is one that is conceptually tied to ancient times when dance connected to agricultural life. Tanaka explains that, 'agriculture is at the basis of dance...Farm work in a creative sense is closely connected with dance. That our body is exposed to the outside environment, to wind, light, heat [...] is in itself a creative factor' (Tanaka 2006).

For Tanaka, Body Weather is a practice with an omni-centrality and he explains the atmospheric conditions of the body work. He writes, "'I' is not the center. The center is everywhere [...] But it may drift around be identified with someone else or some other thing. This is true about human relations, meteorological phenomena, the sun, animals, and almost everything around us. A weather like contingent and ever-changing relationship' (ibid). My understanding here is the critical aspect of the practice that is about atmosphere-making which entails a relating of the body to the environment that is surrounding it. Hence, it is not the body that is a subject but rather is part of the environment, something I will unfold further in encounter 4 (chapter 6) when I talk about the shift from the singular to the collective.

In Body Weather practice, the social body is erased so a mimesis of the surroundings can unfold.² Through the workshop's cloud metaphors, this body becomes a medium embracing atmosphere as a spatial material, visual delight, curiosity-driver and artistic matter for stirring the imagination. Body Weather also consists the practice skills mentioned in encounter 1 such as mimesis, elements of interaction, metamorphosis and reflection (Orrù 2015f). These elements are used to navigate in, through and around our urban realms wherein an exchange is constantly taking place between body and space. The workshop in encounter 3 dissects this dialogue to investigate further what is being exchanged. It does this through creating fabulations with clouds, the corporeal practice, writing correspondence texts, and the performance. The body work techniques are called body *manipulations* which are used in spatial practice to reorganize connections and relations. The body is activated to absorb the external landscape rendering the membrane between inside and outside body more permeable and will be explained further in the next section.

Clouds as mediums of possibility

In order to help appreciate the link of weather to body towards a practice, I first consider how clouds themselves can become an infrastructure for thinking, a concept from John Durham Peters' book on Marvellous Clouds. Peters (2015, p. 30) refers to clouds as having an infrastructuralism, as having a demure capacity in which 'fascination is for the basic, the boring, the mundane, and all the mischievous work done behind the scenes. It is a doctrine of environments and small

² In a performance, to mimic this erasure aesthetically the dancer is usually painted white so the body blends in with the atmosphere.

differences, of strait gates and the needle's eye, of things not understood that stand under our worlds' (ibid 2015, p. 33). These elements hold analogy to the practice of Body Weather; a certain mischievousness, a behind-the-scenes exploration of space, an everydayness of the body in movement, and a support for relating to site that extends body into space and up into the sky. In Body Weather, the 'unnoticed' becomes noticeable and the in-between becomes a prime material to reflect upon – a crack in the stone, a scratch on the glass, dust on a curve. Space too holds bodies as a form of infrastructuralism; for survival, for becoming with, for relating and for connecting. It is notable that,

'The body, a mix of sea, fire, earth, and sky, is our most fundamental infrastructural medium [...] And the human organism is composed of many internal environments. Our neurological function is inseparable from the skin, musculoskeletal system, and sensory organs. Our brains are worn throughout our bodies, and our retinas are the brain's outposts in our eyes. Our body is composed of overlapping ecosystems and is an environment of environments. The boundary between organism and environment does not lie only at the skin' (Peters 2015, p. 266).

Peters' concept of media, though written from the disciplinary platform of media communications, springboards from the fact that well into the 19th century media actually meant natural elements such as water, earth, fire, and air. For him, contemporary media though is about modes of making meaning. This brings up a critical link between media, nature and communication. If media is a form of communicating meaning to the public, or between individuals, groups etc., then nature is at the core of this meaning just as well as a body. Peters (ibid, p. 6) asserts, 'The body is the most basic of all media, and the richest with meaning, but its meanings are not principally those of language or signs, reaching instead into deep wells stocked with vaguer limbic fluids. The body is not one with itself: it is a network. Sharing the same time and space with another is already pregnant with meaning before a single word is uttered. Eons of improbable evolution have conspired to enable any encounter.' Clouds as media propel a connect both to nature, and to bodies, via communicating through the atmospheres they provide. In this mode, philosopher Mădălina Diaconu calls for a reflective aesthetic attitude toward weather, an attitude in which one becomes 'sensitive to the poetics of the everyday weather, both fine and bad' (Diaconu 2015). There is potential in this alliance; wherein the sky offers a medium, clouds could be used as media for thinking and for producing meaning with. Peters (2015, p. 4) refers to such meaning as 'repositories of readable data and processes that sustain and enable existence.' The practice of Body Weather allows the body to reflect upon and 'decipher' this data.

Peters (2015, p. 46) recalls that 'Medium has always meant an element, environment, or vehicle in the middle of things.' For him, this infrastructural media is on par with the elemental atmosphere, and he links it to media as 'vessels and environments, containers of possibility that anchor our existence and make what we are doing possible' (ibid, p. 1-2). This media brings with it new practice; weathering, forecasting, navigating, and imagining, all part of transdisciplinary

gestures associated with embodied practice. As ‘containers of possibility’, they anchor our being in space and time, and provide particular atmospheres. They are therefore Kairos (καιρός) the Greek word for weather, often translated also as windows of opportunity or good timing. The element of atmosphere is taken up later in this chapter, but its role is crucial as it is situated in urban-making as a vital ingredient for propelling imagination.

Anthropologist Tim Ingold (2011, p. 115) explains that living beings exist and are an integral part of the weather-world, ‘to dwell within a weather-world in which every being is destined to combine wind, rain, sunshine and earth in the continuation of its own existence.’ Therefore, he views earth and sky not as two separate entities but rather as folded into one another, viewed as ‘manifolds of movement that are directly implicated in one another’ (ibid, p. 119). This conceptual thinking is at the core of the interventions in encounter 3 as a critical underlining and orientation of Body Weather practice, one in which atmosphere surrounds body inside, outside, above and below. There is no up or down, there is only becoming. Ingold (2011, p. 115) establishes that this atmospheric logic is to be ‘in the open,’

‘Instead of thinking of the inhabited world as composed of mutually exclusive hemispheres of sky and earth, separated by the ground, we need to attend [...] to the fluxes of wind and weather. To feel the air and walk on the ground is not to make external, tactile contact with our surroundings but to mingle with them. In this mingling, as we live and breathe, the wind, light and moisture of the sky bind with the substances of the earth in the continual forging of a way through the tangle of lifelines that comprise the land.’

He offers a way to bind life, to bring together earth and sky, human and nonhuman actors, wherein all elements and participants inhabit a common open. In Body Weather, this atmospheric gesture of embodied thinking supports a bodily practice that can deepen being in this open. To connect ground and sky and to see it as a common agency, allows a profound connect to nature, to climate, and to nonhumans and humans.

Ingold speaks of the constitution of beings that, ‘by way of their activity, participate in stitching the textures of the land...the relation between land and weather...is rather one between the binding and unbinding of the world’ (ibid, p 121). The practice of stitching is crucial in developing an ecological ethics and commitment. This further supports an embodied practice in which making our way through the world is a form of relation-making. Urban-making, seen through such a lens, has the potential role to ‘open’ spaces wherein living beings stitch alongside together. Body Weather applies an act of stitching in the intervention through its relation-making, it has the potential role to provide ‘open’ spaces wherein living beings – human and nonhuman – suture alongside together.

Such an engagement with the weather-world is haptic, meaning that it must occur at close range and hands-on. As mentioned in encounter 2, Donna Haraway refers to such worlding through the lens of becoming-with, a reformulated cohabitation with others. This formation, an

ontological choreography of sorts, is associated with training to become a companion species. She states, 'I believe that all ethical relating, within or between species, is knit from the silk-strong thread of ongoing alertness to otherness-in-relation' (Haraway 2003, p. 50). Training the body to perceive such emerging otherness gestures alternate modes which Law (2004) encourages us to use methods unknown in order to deal with the complexity of environmental challenges.

Weather in all its potential for connectivity is not an object, experienced from the distance, but rather it is a medium in which every living being is immersed. In *Body Weather*, the weather is inside, internally embodied. In both cases, the weather does something to the body, and you are always in the middle of it. It is inescapable.

Fictions in the air

With cloud-thinking there is an opportunity to imagine: shapes, animals, stories, flying mountains. Clouds are here to help us imagine with and provide ways in which belonging in and with the world is in essence strongly tied to natural elements. We project ourselves into clouds through this imagining. They help us to 'world' with and this can be done then in the bodily practice of *Body Weather*. Though this is not the only intention of Min Tanaka's choreography, it was the intention of this workshop to bring us into this imaginative space through an introduction to clouds by Dan Ringgaard (Orrù & Ringgaard 2017a) as a way to extend into the environment – here both the environment of nature, of sky and of atmosphere. This entire ambiance allows for a site condition that allows for a force of imagination to emerge through such practices of wonder.

In conceptualizing clouds as fictions in the air, gives them an intensity and affect that propagates meaning. They can be seen as 'worlds-worlding' (Ingold 2011, p. 130). A critical attribute to encouraging intensity in worlding is imagination, which notions worlding as a poethic conceptual thought (see encounter 2 - chapter 4). In this mode of world forming, the world in flux beckons an ethical curiosity to take place through the encounters with practice in spaces that push imaginaries and motivations. Clouds offer up such potential. They offer heterogeneity, multiplicity and an opening for 'the indefinite.' through 'creating metaphors and images for what is impossible or barely possible, unthinkable or almost unthinkable. Slippery, indistinct, elusive, complex, diffuse, messy, textured, vague, unspecific, confused, disordered, emotional, painful, pleasurable, hopeful, horrific, lost, redeemed, visionary, angelic, demonic, mundane, intuitive, sliding and unpredictable' (Law 2004, p. 6). Similar to elemental media, Law points out, 'Each is a way of apprehending or appreciating displacement. Each is a possible image of the world, of our experience of the world, and indeed of ourselves [...] together they are a way of pointing to and articulating a sense of the world as an unformed but generative flux of forces and relations that work to produce particular realities' (ibid, p. 6-7). The world as a 'generative flux' begs for different forms of immersing oneself in cloud horizons to extend moments of displacement in order for this 'otherness' to occur. These indefinite modes can be reached through a corporeal practice such as *Body Weather* which offers the in-between space for reflection.

In the Body Weather practice, clouds are used to move with, to move towards, to move as and to dialogue with. A decontextualization can occur in two manners: either externally or internally experienced. For an external decontextualization, it is interesting to look at the work of Dutch artist Berndnaut Smilde, whose work places vaporous clouds on the interior of different spaces in buildings, a temporal material, he captures only through photography (Smilde 2017). An internal decontextualization occurs through the practice of Body Weather and its usage of cloud metaphors and dialogues as has been done in this intervention. Thinking in such terms is about bringing forth this relationality and connectivity of upper and lower elemental hemispheres.

Emotional weather

I would like to dwell longer on the connect of meaning and body through the constituent of emotion that arises from weather. Weather as emotion is a banal habit. Diaconu describes this weather emotive connect as meteo-dependency, in which 'the appreciation of weather depends on physiological criteria of corporeal and emotional well-being...the drama of the clouds, entitles the beholder to assign a capricious or "moody" temper to the weather: the mobility and fluidity of cloudscapes are a reflection of life' (Diaconu 2015). Weather as emotion is also in motion and therefore it becomes something bodily, folding and unfolding in form and feeling. Space too denotes mood by relaying an atmosphere. Juhani Pallasmaa (2012, p. 240) explains that the grasp of spatial atmosphere occurs in the moment when we develop an emotive attitude to it, similar to what is experienced in weather emotions.

Emotions play a significant role in thinking. Mark Johnson (cited in Pallasmaa 2012, p. 244) writes, 'there is no cognition without emotion, even though we are often unaware of the emotional aspects of our thinking [...] Emotions are not second-rate cognitions; rather they are affective patterns of our encounter with our world, by which we take the meaning of things at a primordial level [...] Emotions are a fundamental part of human meaning.' Considering this, emotions arising from weather-thinking take on another type of significance that needs to be considered.

Clouds, like emotions, are in flux; constantly changing and moving. Weather is in constant change. In Body Weather practice our bodies are in flux, they are riding on a cloud, they are moving as a cloud body: round, through, towards, out, over, above, below, along. We are moving with the body, we are a Body Weather in flux. We are creating relations. Clouds are our tropes, swerving about. They are unpredictable, and therefore in a state of poeisis, or rather, they are poethic - political, ethical and poetic - as they reformulate the relation to space. Ingold (2011, p. 117-118) points out that 'To understand how beings can inhabit this world means attending to the dynamic processes of world-formation in which both perceivers and the phenomena they perceive are necessarily immersed. And to achieve this, we must think again about the relations between surfaces, substances and the medium.' Hence, we arrive at the notion of relation-making that coordinates a connect between an assemblage of vibrant materialities, not only physical matter and bodies, as Bennett also subscribes to in her concept on thing-power. Thinking with clouds becomes yet another way to envision naturecultures and site conditions.

Elemental imaginations and site conditions

Hence, we arrive at the notion of 'site' through weather which Nigel Thrift alludes to also as an 'active and always incomplete incarnation of events, an actualization of times and spaces that uses the fluctuating conditions to assemble itself' (Kwon cited in Thrift 2008, p. 12). Weather is atmosphere, and being with your body in the middle of this atmosphere is what Body Weather practice can summon and viewing nature as an epitome of meaning begins with the body.

Clouds help in experiencing distance and time, they slow us down, sometimes they make us stop, and give a focal point or destination that anchors the body to the ground. Clouds are signs for weather to come. Hence, memory is rooted in the atmosphere and a sense of urgency, and in this heightened elemental landscape, there is the opportunity to take the weather seriously and therefore to take nature seriously. Diaconu (2015) believes that clouds enable an environmental-thinking that can 'raise the awareness of climate change and at the same time to enhance aesthetic experience, by shifting the focus of aesthetic appreciation from dramatic weather shows to less conspicuous weather conditions...Humans may even begin to see the beauty of some landscapes only when they are confronted with the prospect that they may well disappear.' This brings us back to the concept of Kairos as weather and as a window of opportunity which suggests that the moment is urgent to take action. With such urgencies, cloud and Body Weather become practices with profound implications.

A force of imagination

'Recognizing, imagining, Relation [...]

Escape, the problems at our heels?

No imagination helps avert destitution in reality [...] But imagination changes mentalities, however slowly it may go about this' (Glissant 1997, p. 183).

With body submerged in the clouds, there is now the potential to further afford a force for cultivating imagination in terms of an ecological poethics. Jedediah Purdy proposes the concept of environmental imagination in which poesis and ethics of ecological matter sit side by side providing opportunities for transformation. For Purdy (2015, introduction, p. 11) 'Imagination means how we see and how we learn to see, how we suppose the world works, how we suppose that it matters, and what we feel we have at stake in it. It is an implicit, everyday metaphysics, the bold speculations buried in our ordinary lives.' The intervention in encounter 3 takes on a serious note, however playfully, it also manages to navigate through urban-making. Though I refer to it here, this playfulness is actually present in the staging of all the research encounters (encounter 1-4), Purdy clarifies this playful attunement,

'It should be clear that, far from being frivolous make-believe, imagination is intensely practical. What we become conscious of, how we see it, and what we believe it means

–and everything we leave out - are keys to navigating the world [...] Imagination also enables us to do things together politically: a new way of seeing the world can be a way of valuing it – a map of things worth saving, or of a future worth creating [...] the link between ways of seeing, encountering, and valuing the world – that is, imagination – and ways of acting, personally, politically, and legally, that have shaped the world in concrete ways’ (Purdy 2015, introduction, p. 11-12).

Urban-making which uses the body is about bringing in a vital form of imagination and developing embodied methods to do this. This imagination is at the interface of everyday life producing different kinds of meanings and atmospheres to operate with; produced meaning, discovered meaning, collective meaning and most importantly, embodied meaning (somatic). There is a drive in encounter 3 to connect the body to the understanding of landscape as a dynamic and interactive process through a deeper corporeal understanding. The body is placed in diverse relations with the site – slow walking, blindfolded exploration, sitting, dynamic metaphoring etc. The key models for the methodology in encounter 3 include imagining and storying, mimesis and performativity which were all also present in encounters 1 and 2. These approaches bring to the surface hidden connections to switch perspectives, deal with complexities aiming to reach new understandings as 'exploratory actions which bring out, or reveal, the unknown and open up for the unexpected' (Dyrssen 2010, p. 236). Glissant expands the meaning of internal space as the 'vertiginous extension, not out into the world but toward the abysses man carries within himself [...] Inner space is as infinitely explorable as spaces of the earth' (Glissant 1997, p. 24). With Body Weather practice there is a constant internalising and externalising occurring as the awareness in the body explores a space. Both internal and external spaces of awareness can be seen as spatial in terms of being discoverable. This is a beautiful mental image because if inner space is as vast as the earth, then embodiment is a critical approach to investigate that depth and to bridge connections between the inside body and the outside space.

Corporeal imaginering

In the practice of using the body to imagine with, Purdy acknowledges that a certain exchange occurs. He writes that 'humans spell out their imagination in the landscapes they shape, and the landscapes write their forms on human experience and the imagination it fosters' (Purdy 2015, introduction, p. 26). In understanding Body Weather practice, the landscapes that emerge stimulate imaginations that allow me to examine the research from unexpected entry points. In the practice, there is the mutual feedback between a body and space recalled in our opening quote at the beginning of encounter 3, 'I dance the place' (Tanaka [no date]) where the intention of the Butoh body was to merge with the space around it.

The difficulty with using an explorative and discoverable approach is that, since 'scientific truth' is not the aim, one must remain open but not ambiguous which requires a certain amount of intuition, at times unsettling and uncomfortable, to drive the research process as discussed in chapter 1. Imagination after all is a difficult substance to capture exactly and it isn't meant to be.

Dyrssen (2010, p.229) advocates prolonging the ‘moment of discovery’ which is challenging as it emerges slowly through insight and continuous creative thinking. In the Butoh practice one way to achieve this is through prolonging the immersion in a specific exercise but also to provide a range of bodily configurations that test the imaginative capacity, either alone in practice, in a duet, or as a collective movement. One option has been to use imagineering which can help deal with the complexity of some of these issues. Imagineering is a technique used in design to generate an imagined emergence through living systems, designing for evolution rather than solution through narrative forms. Diane Nijs (2014, p. 5) proposes imagineering ‘as the complexity-inspired design approach that makes use of the narrative mode in order to strategically ignite and frame collective creativity.’ In line with Purdy’s environmental imaginations, by igniting creative approaches for environmental behaviour, urban participants are more likely to attune. The use of playfulness, storying and other methods, transpires to awaken a collective creativity and evoke transformation. Nijs states, ‘Dialogically (and strategically) reframing a complex problem in an inspiring way can evoke brain-shifts in individual agents that makes them see a new innovation horizon, which can result in collectively creative dialogues that can lead to breaking routines and inducing transformative actions [...] [Thereby leading to] a better functioning network of actors that is able to cope more effectively with the complex problem at stake’ (Nijs 2015, p. 9). Using the cloud metaphor was a way to horizontalize earth and sky into a mutual atmosphere that the body could practice with. Students were taken by the corporeal consideration that caring for ground meant caring for sky too. This could be a strategy of performing vibrant materialities that extend upwards, not just into the surroundings. In Nijs’ (ibid, p. 15) context, imagineering is most often utilized in design contexts reframing existing situations (wicked problems) into more desirable directions which Nijs refers to as an ‘adaptive tension engine.’ Her methods use narrative from linguistic artefacts, whereas I entail corporeal forms of storying. In both cases a narrative involves a re-interpretation of the everyday and requires activated imaginations envisioning ‘other’ ways of being in the world.

There is a dilemma though with using imagineering alone. First it tends to be too instrumental when it comes to embodied techniques, and given its history with Disney, I shy away from its commercial overtones and social engineering tendencies.³ Narratives standing alone without corporeal support have a tendency to be passive and therefore seemingly too instrumental. Using imagination has the capacity for a critical fiction, whereas imagineering is an activity built around a narrative. The difference is that critical fiction belongs to the realm of fictocriticism (encounter 2) which has a performative usefulness by using a more tactile and local fiction and thus forming a corporeally situated ability to cope with complexity (Frichot et al. 2012). There is

3 Imagineering’s origin dates back to the 1940’s as a term that fuses ‘imagination’ and ‘engineering.’ It is the application of creative ideas into a viable form, coined by the aluminium company Alcoa to encourage innovative usage of the material and to gain more customers. It is better known for its use by Walt Disney Company in their visioning and creation of Disney theme parks. Since then, it has been a term utilised in urban design, futures studies, design thinking, geography, politics etc. I have tentative views on imagineering due to its unpleasant association with social engineering, which is not at all the aim in my approach.

a dynamism that beckons the body to be engaged. Though imagineering has been a vital catalyst in this research process to begin with, it is not enough and needs more critical feminist corporeal contributions if it is to work with spatial interaction.⁴ Therefore, using approaches such as the elemental imagination discussed throughout this chapter can take on a more poetic and visceral course, a form of practice which I am advocating with the Body Weather choreography.

Fiction is fundamental because it is a way of sense-making an experience and can be retold, and while fictocriticisms are re-enacted, narratives are recounted (Chandler & Munday 2016). Each form of fictioning and imagining discussed (imagineering, elemental imagination, fictocriticism, narrative etc.) hold potential for making relations and engaging with space in alternate ways to grasp complexities. Through embodied approaches, this means putting emphasis into the body in instigating a desirability, relational awareness and potential. In this manner, the body immersed in a fiction becomes a core medium for contemplation as opposed to a narrative by itself and by immersing the body into situated experiences opens up for deeper commitments.

If the body is considered crucial then the performative aspect needs to be considered again. In the field of performativity, Bernd Huppauf and Christoph Wulf assert that,

‘Perception and gaze point to the fundamental significance of the body for the development of images and imaginative activities [...] Images and meanings emerge from people’s gestures and the way they use their own bodies [...] The fact that physical movements activate the imagination [...] in which an architectural space, which is mostly thought of as static, becomes a performative, dynamic space through the movements of people, animals and objects’ (Huppauf and Wulf 2009c, p. 155).

Their understanding is that perception, memory and imagining are a triad alliance that are also driven by intentionality (Huppauf and Wulf 2009a, p. 13-14). Using the body in the imagining of spaces is significant in the way architecture is created not only as a spatial exercise but also temporal. Body Weather uses metaphor to generate imagination which is strongly bound to how the alert senses perceive a given space and time. In the exercises where the participants were blindfolded, the imagination worked its way to propose a topography of the space based on the visceral experience of materiality. In such instances, intuition and creativity were called upon to move through the space and to fill in the gaps using imagination. This returns to a practice where worlding (encounter 2) is a way of enforcing a fiction that is profound and extended out through the body.

Performative spaces

‘The performative space is characterized by that very possibility of being used in unintended ways [...] Each individual use constitutes the performative space and

4 Janssens (2012) provides an crucial account on how imagineering can be utilised in urbanism.

brings forth a specific spatiality [...] the negotiation of relationships between actors and spectators, movement and perception' (Fischer-Lichte 2008, p. 110).

Body Weather has the capacity to explore and develop performative strategies which may have profound modes in transforming practice. This transformation occurs in what Erika Fischer-Lichte (2009) calls a liminal experience, wherein the process of unknowing oneself, the knowing of oneself happens again, and one is transformed.⁵ The transformation can also be aligned with Ahmed's concept of orientation (chapter 3).

Fischer-Lichte has been studying the potential of performance and imagination in two performative installations that were aimed at studying aesthetic experience.⁶ She proposed that when a body is in movement in a given space 'that sets the imagination in motion; consequently, various scenes that might have taken place or could take place in this very space are imagined by the subject while moving through space' (Fischer-Lichte 2009, p. 178). Hence movement and imagination are entangled in transformative gesture (encounter 1). She makes an important differentiation between architectural space and performative space, whereas architectural space is mostly stable and static, performative space is in flux as it comes into being when humans and nonhumans move in and through it. Performative space is altered with each input, be it a subject, object, or a sense such as sound or movement. It is a space that is changed and changes throughout an intervention. In such a space, agents are both performers and spectators, and the imagination of spectators is set into motion by the performance. In an urban-making perspective, I regard architectural space as performative, and in terms of foodscapes, the vibrancy and curiosity present in such spaces are activated by the persons gardening (performers), who create a performative space, but also through encounters with neighbouring spectators or passers-by. One important ingredient necessary for approaching performative space is that it requires telling an ecological narrative. In Fischer-Lichte's (2009, p. 182-183) staged performance *Rudi*, the interaction between space and spectator was necessary to destabilize participant and the space, she writes,

'by moving through the rooms and re-creating them as performative spaces, the visitors transformed them into spaces open to their own imagination and memory [...] The performative spaces brought forth by the visitors allowed for the most diverse imaginations and memories to emerge in the minds of the spectators.'

5 Fischer-Lichte explains, 'This aesthetic experience may be characterized as a liminal experience – an experience of irritation, of destabilization of the self, of the incapability to make sense of what is perceived and to place it in a coherent order. Such experiences arise from the sense of perceiving enigmatic images that might be interconnected' (Fischer-Lichte 2009, p. 183). In her writings on the transformative power of performance, she regards this transformation through the concept of liminality as aesthetic experience.

6 The two performances were: *Rudi* – a historical story-reading in a museum encouraging spectators to move through the space in order to reveal the narrative. *Hygiene heute* – an audio-tape tour of a detective story moving through an everyday city in real time. In this performance, the individual spectator/participant becomes an actor and the urban space is transformed by their actions.

That somatic memory is 'installed' is important to note, because in remembering, it means that the behaviour changes when we come to find ourselves in the same spot again. Likewise, in the second performance *Hygiene heute* which took place in the city through individual recording on headphones given to participants, she described how each space was altered by the participant's intervention, even to people who may have passed it in their everyday routine. She writes, 'By moving through the city's space the spectator turned it into everchanging performative spaces that evoked particular imagined spaces. Spectators who believed that they knew their city very well very soon began to perceive it differently' (Ibid, p. 185). The performed spaces, now altered, became imagined space, an unknown composite of real and fiction, people, and movements.

Fischer-Lichte's main aim with both performances was to challenge the spectators to unknow the space and themselves. The *Body Weather* exercises manoeuvre around with the same ends. If indeed these performative corporeal experiences are set to orientate participants into another thinking about the environment and the space they are practicing in, then the process of re-orientating should also be considered if the method is to be a transformative endeavour. Therefore, imagining with the atmosphere is an important consideration in performative practices.

The task of atmospheres

A question to return to is; what if the body, or bodily action, creates the atmosphere and not the space? Absorbed in this bodily action is the imagination working alongside the material properties of a place. An example of this is Bennett's thing power which sets up certain atmospheres of thought and understanding of space needed for environmental awareness, an awareness that encounter 3 attempts to set up through the bodily practice.

Atmosphere is a slippery term, very often romanticised in architecture with a need for more corporeal grounding. Philosopher Gernot Böhme (2014, p. 43), who writes extensively on atmospheres as aesthetic, declares that 'Atmospheres fill spaces; they emanate from things, constellations of things and persons.' In such practice, architect Peter Zumthor is best known for his architecture in terms of its atmospheric qualities. He works with qualities and forms which create conditions that move us and touch us; mood, feelings, an intensity, sense of expectation, affording personal sensibilities, and a magic that lies in thought and imagination. He equates space to an atmosphere that is a 'body that can touch me' (Zumthor 2006, p. 23). However, this can also be reversed in terms of urban-making, the tactile contact with space becomes an agency too. Zumthor offers a guiding praxis for architectural practice, an activation of all the senses that for me seems passive given the contemporary challenges of the environment, in which the bystander is effected by the space but not necessarily given agency to affect it back or is neither encouraged

towards an ecological gesture.⁷ Architectural thinking must take into consideration this two-way agential relation for the making of space, especially urban-making. Zumthor, Pallasmaa and Böhme offer guiding light in terms of recommendations for atmospheric implications that can move us; however these approaches still do not deal with the complexity of environmental challenges. The question still remains what atmospheres can be generated to moves us to behave ecologically, and in turn, what role does the corporeal take in generating these atmosphere? Fischer-Lichte (2008, p. 116) writes that ‘In performance, atmosphere is to the creation of spatiality what presence is to the generation of corporeality. Through its atmosphere, the entering subject experiences the space and its things as emphatically present.’ In the interventions thus far, the body has been in the centre of atmospheric-making rather than materials. It has been the intention that through the bodily presence and performativity, the space takes on an atmosphere. Rarely is a material added (besides plants and greenery when in the state of gardening), but an atmosphere is cultivated. The aim is to cook up an atmosphere which then leads to an ecological transformative behaviour which occurs in a situated knowledge practice.

Sara Ahmed’s (2006) theory on orientation plays a key role in the discussion of atmosphere, because the way a certain space orientates us affects the way in which we behave, what our beliefs are, and what we engage in. Böhme emphasizes that atmospheres ‘can be staged strategically or instrumentally in ways that affect how people experience a city’ and that ‘atmospheres emerge as a result of the daily urban life of the inhabitants [...] particular life forms give rise to particular urban atmosphere’ (Böhme 2014, p. 48). But, there is a danger that certain atmospheres are staged in terms of power, politics and namely capitalistic means, which gets us into the conundrum of ecological malfunction as I have brought up already in the beginning chapters. Therefore, it is important to consider the poethics of atmospheres when setting them up. Borch argues that ‘Architectural atmospheres affect us, change our moods, and influence our behaviours, and these effects may be produced without us consciously recognising them’ (Borch 2014c, p86). Such influences can be correlated with atmosphere-induced mood shifts. It helps to bring up affect again as an important concept that can help to understand corporeal relating in a given atmosphere. Geographer Ben Anderson (2009, p. 78) calls this an affective atmosphere, he states that ‘atmospheres are generated by bodies – of multiple types – affecting one another as some form of ‘envelopment’ is produced [...] Affective qualities emanate from the assembling of the human bodies, discursive bodies, non-human bodies, and all the other bodies that make up everyday situations.’ If body(ies) create atmospheres then I refer back to the question posed at the

7 Zumthor suggests activating the senses through qualities such as material compatibilities, sounds, light on things and temperatures of space, surroundings within and around space, levels of tension, intimacy, composure and seduction brought forth by the composition, and the coherence which leads to the ‘beautiful form’ (2006). While I do not disagree with these qualities as being critical, I am aware that my view can bring up quite a debate about architectural aesthetic which is not the intention with this line of thinking. I regard Peter Zumthor’s work as one of the most beautiful forms of contemporary architecture and it has been an inspiration to me throughout my years of practicing as an architect, however, the argumental thinking here calls for another form of sense activation.

beginning of encounter 3 before the intermission; what if this bodily-made atmosphere became the poetic infrastructure for behaviour instead of a given spatial atmosphere dominating behaviour? To reflect on this, it is important to tie in the sensorial and temporal conditions of space rather than just space by itself.

Making urban sense[s]

An approach that seems prevalent in the discussion on imagination and atmospheres are through the senses. In Butoh, the sense are key practice ingredients to the experience. Every significant experience is multi-sensory and a characterization of atmospheric perception, we take in the vibrant matter of a space through all our sensing interfaces; tongue, eyes, ears, nose, bodily kinetics and somatics, and skin. In Butoh, these membranes are vital parameters through which to navigate through space as seen in the exercises (encounters 1-3). At times the senses become inverted and the body is thus already immersed into its sensing atmosphere. It is a playful condition that encourages the experience and thinking about space differently and is also a vital ingredient in an ecological approach to urban design. Cultural historian Constance Classen (2010, p. 66) also underscores the sensorial as critical, because of its potential. She writes,

‘As we rethink urban design within the context of ecological sustainability, we need to look for urban models that can fruitfully sustain our sensory lives. The best way to encourage people to commit themselves to new modes of urban existence is by engaging them through pleasurable sensory experiences: green pleasures, rediscovered and reimagined through a revitalised cityscape: [...] the aesthetic of sustainability is not about recovering preindustrial ways of life or making cities into green machines for living. Rather, such an aesthetic call for new ways of perceiving and interacting with Earth and its inhabitants, based on justice, compassion and cooperation – the sharing of pleasure. Think of green pleasures as a way to cultivate a more ecological way of relating to the world, with both our minds and our bodies’ (Classen 2009, p. 73).

Her research approach to the senses as motivators of ‘green pleasures’ has stayed in the staging of all the interventions in this thesis from the start. These sensescapes can be seen as living gateways of situated knowledge and embodied learning.⁸ To consider this means that there are modes in which to ‘investigate the role of the senses in the production, regulation and contestation of particular city spaces and the cultural meanings associated with them’ (Hetherington 1997 cited in Cowan and Steward 2007, p. 6-7). Thresholds and margins build

8 There is a need to contextualise the word ‘sensescape’ as it has been an important driver in the earlier research entrances into my use of the senses. Constance Classen defines sensescapes as ‘landscapes of sounds and sights, smells and textures, and the flavors of their characteristic foods’ (Classen 2009, p. 66). Another author whose work on sensescapes has been highly valued and used in approaches to urbanism and the senses is Dr. Victoria Henshaw who sadly passed away in 2014. Her book on Urban Smellscapes (Henshaw 2013) is an important contribution to my entering corporeal practice in urbanism through the lens of the senses and I was in contact with Henshaw about future collaboration.

up the language to use when a body is in the dialogue with space, as explored through the Body Weather interventions.⁹

Gathering from this, the sensorium is a complex system, an assemblage that the body and space has intricately composed (Dürschmid 2011, Classen 2009, Howes 2011a, Howes 2011b, Corbin 1995). Historically, sensory systems have been hierarchical, Dürschmid (2011, p. 197) demonstrates that, 'Mostly vision was on the top of the hierarchical pyramid and smell was at its base. Vision was said to be the most objective and smell, in contrast, the most subjective sense.' However, though the visual sense tends to dominate, Dürschmid (ibid, p. 198) reminds us that 'Our sensory systems are an integrated network, in which one element cannot change without influencing the others... Besides actual sensory inputs from the peripheral sensory systems, also memories, expectations and emotions influence the actual perception.' This is crucial because it positions the senses into a spatio-temporal construct wherein memories from sense experience can evoke action. An important aspect of Butoh practices is to remove the visual sense so that the other sensorium can become prominent. The use of all other senses aids in this expansion of corporeal into spatial and an atmosphere arises that is generated and steered by using the senses.¹⁰ The sensorial experience of a city belongs, and has belonged, to the corporeal realm. Monica Degen (2008) speaks of spatial-sensuous encounters in urban regeneration and how they are made effective through organization of sensory experiences. Degen's research, together with Rose and Basdas, looks into how bodies and everyday practices in 'designed' environments, such as pedestrian areas in shopping high streets and regeneration schemes, are affected. In their findings, they state, 'The physicality of the city constantly interacts, supports and collides with our bodies. And our bodies respond to, go along with, or ignore these environmental affordances' (Degen et al. 2010, p. 60). They view the body as an interface where 'the body and the surrounding material environment are in permanent flux, constantly folding and unfolding; and, that the body digests, adapts and transforms in relation to the potentialities offered by its surrounding environment' (ibid, p. 66). In my encounters, the sensuous contact is crucial for its potential in establishing environmental behaviour, connecting to the corporeal which is the vessel for a sensory experience. I use the term *organoleptic interface* as a way to outline the capacity of sensual encounters, bodily experiences, assembled interfaces and the pleasures of their converging. The relations between the human body as a sensorium and its urban environment, and vice versa, lead to a sensorial atmosphere and can influence urban-making towards ecological mindsets. It is an atmosphere of urgency. Approaching the sensorial body in a fluid manner is what critical

9 Dürschmid (2011, p. 192) outlines that these gateways are not limited to only five senses, he explains, 'If our perception System would be restricted to 5 senses, we would die immediately. Modern scientific methods come up to 33 doors of perception, 33 sensory systems in human beings, reaching from vision, smell, taste, touch, trigeminal perceptions in the nasal or oral cavity, somatic pain, cutaneous pain, balance, kinaesthesia, muscle stretch, heat, cold, to interceptive receptor systems for blood pressure, head blood temperature, lung inflation and so on. Not all of those sensory systems lead to conscious perceptions-some remain unconscious and we can make conscious, as soon as we pay explicit attention to it'.

10 In the Licentiate, I provide a historical account of the senses which played a crucial role in influencing contemporary urbanism (Orrù 2016, p. 52-54).

feminist practice entails and the same affective atmosphere can occur and be studied for 'green' spaces to encourage an ecological-ethics into urban living rather than commercial hegemony.¹¹ In my research, I have alluded to these affordances as the bodily dialogue with space through the corporeal practice of Butoh. In Butoh, tactility is a critical bodily mode of navigation especially when participating blindfolded. Classen has written a poignant book on the Sense of Touch (2012), investigating the cultural history of touch and how it informs cultural values in society. Touch brings up a gap in the link between the senses and society. Classen (2009, p. 69) proposes that a 'full bodied experience of the world requires all the senses. However, if we are to counter the domination of sight in contemporary culture, I suggest we pay attention to touch. By cultivating tactile values of intimacy, interaction, and integration – values that promote engagement with our physical and social worlds – we can more effectively sustain both our cities and ourselves.' In all the encounter, students navigated using their hands to slide along space and find their way. It was only after their tactile sense felt trustful enough, that they allowed for the other senses to become prevalent too. I briefly alluded to this sensorial trust in encounter 1 when I described Butoh choreography and spoke of the awkward reshuffling of senses (e.g. hearing with touch, smelling with hands).

The knowledge acquired from sensorial encounters is tacit but constant. In the Butoh practice I noticed that the connection to using nature as a metaphor and also the context for practice was important in exploring my intended ecological aim. Carolan (2007, p. 1265) confirms the use of touch in experiences with nature as an important threshold for environmental practice, he writes

'tactile space offers a spatially sensuous supplement to the limited representational knowledge we have of the world by its ability to nurture non-representational knowledge [...] tactile space seeks to further embed and embody individuals within the social and natural worlds; a move that, in turn, nurtures new intelligibilities and thus behaviours towards others and the environment.'

In other words, using touch to navigate space brings to the surface certain spatial knowledge that was not recognised before. It begs me to ask then, if the senses play such a key role in understanding space, why are they not more prevalent in architectural thinking and urban-making? Degen agrees and calls this a sensorial poverty in urban development. She advocates the combined use of the five senses to produce particular place experiences (Degen 2008, p. 52). My understanding is that tactility plays a central role; the ability to be touched in certain manners (internally moved), and the empowering gesture of touching the space (externally engaged). For example, the urban gardening space is an opportunity where such a tactile mesh of atmospheres could take place. The tactile quality in these instances is a certain type of knowable and situated touch. In light of tactility playing a strong role, Classen (2009, p. 68) devised a general design approach based on sensorial diversity, local touch and fairness to what she calls 'an aesthetically pleasing sustainable city.' Her basic principles for bringing in the senses are:

¹¹ Urban design's potential to affect behaviour has had numerous impacts on building the 'experience economy' in commercial regeneration projects.

- that the widespread privileging of vision in modern urban life be tempered by an increased sensitivity to the nonvisual senses, to the ‘invisible city’
- that an integrated diversity of sensory stimuli should generally be preferred to a tedious uniformity
- that the sensory design of the community be rooted in local cultural traditions and ecological systems
- that any program for the development of a green aesthetics be guided by an ideal of working in cooperation with nature, and be grounded in social justice and compassion

Now that the thickness of senses have been positioned in relation to urban-making, the next ingredient within is to delve into temporality.

Embodied time and space

‘The kinds of worlds we inhabit, and our understanding of our places in these worlds are to some extent an effect of the ways in which we understand space and time.’ (Grosz 1995, p. 97).

Temporality has weaved itself in and through all the encounters and has a strong presence as a conceptual experience in the embodied practice present in three ways; seasonality, everyday rhythm and an in-between time. The first two modes are present in the thematics of food and body which will be discussed briefly here.¹² The third mode of time ‘ma’, supports the poetic thinking in the research and also links to Japanese thinking already present in the methodology of Butoh.

Seasonality, a biological time, enters through the lens of season and metabolism, and is critical time to consider when discussing both food and body. Everyday time is one of the present moment, the here and now, the everyday rhythm. ‘Ma’ time is a time which exists between intervals and it does not rely on linear progression. It is this temporal thinking that is full of potential and the possibility for the corporeal work to coincide with and with each passing time, space is intervened differently.

Time is essentially in a movement and beckons movement either forward or, in some cases, backwards through memories sparked by spatial properties. Time moves us through space whether we are late for something or the seasons beckon us indoors or out. The aspect of time can also be perceived differently dependent on the body’s ontological position in space. Morten Søndergaard (2013) uses three spatial metaphors to explain this – vertical, oblique and horizontal time – to explain positioning in space to time. My reading of his metaphors, after

¹² These modes of seasonality and everyday rhythm are discussed further in my licentiate publication (Orrù 2016, p. 57-60).

further discussion with the poet, is:

- The 'vertical' position of moving is enacted through movement such as walking, dancing, gardening and collapses the distance between places at different scales.
- The 'oblique' position is one of reflection that occurs while writing, speaking, talking, conversing, and even growing.
- The 'horizontal' position is a type of reflection, which comes in instances of rest, sleeping, sitting still, procreating and dying.

The vertical and horizontal position metaphors are counterparts, the contrast of life in movement and life at rest or death, both of which are metabolic processes connected to a biological time. The oblique metaphor lies in-between, as a bridging, for it is the position that essentially moves us forward or drops us to the ground – therefore, it is the decisive factor and the position of re-orientation. It is in this oblique state, as in *ma*, where the potential for transformation in everyday behaviour resides. In this reflective position, the opportunity for decision and choice emerges. To activate the oblique state, space needs to be embodied through presence, its affective atmosphere and its activity.

Seasonality and everyday rhythms

Seasonality reveals the temporal sense in nature; the time it takes for something to grow, the dependency on light and weather in each season, and the body's involvement. For instance, through gardening we can have a glimpse into seasonality using our bodily experience. In the Butoh practice, seasonal time emerged through sensing material properties such as dead leaves or shifts in temperature between indoors and outdoors. The temporal and sensorial understanding through seasonal properties is an important part of the practice. It is through seasonality that the environment provides the body with a sensorial experience that alerts it to different notions of time. Seasonal change also provides a moment for reflection about what has passed or is about to come, it brings with it a rhythmic commitment of growth and expectation. When something falls out of rhythm, we get concerned as we may understand it to be a signal of the climate changing. Seasonal time may also provide another mode for understanding vibrant matter, for example through different rates of decomposition. These assemblages of rhythmic effects can be queues for environmental behaviour and their presence connects back to the atmospheric logic discussed in the previous section. Glissant views these assemblages as a poetics of relation. He suggests that rhythmic and repeated encounters hold a potential for inspiration (Glissant 1997, p. 45). Bodies construct an affective atmosphere in their everydayness. Kathleen Stewart (2010, p. 445) explores a topography of everyday that emerges only once a body puts attention to its matterings and complex emergent worlds (encounter 2). Routines can either be addictive or dropped, but she says this depends on the intensity and duration of a particular routine. At times

there is the stuff of the hinterland, the in-between interface that is barely sensed but yet compels our curiosity. The Body Weather explorations aim to peer into the in-betweenness of space and matters and discover other poethic rhythms to uptake that holds potential for urban-making.

The body in between 'ma'

The Japanese spatio-temporal concept of 'ma' supports the spatial-to-corporeal correlation and has been numerously applied in discussions about architecture in Japan in regards to seasonal sequencing.¹³ For instance, ma can be viewed as the gap between seasons. Ma is an interval, gap, opening, awareness in which temporal progression relies on space awareness, spatial progression relies on time, and the potential transformation which exists in this 'interval'. It suggests a delay or silence, as a demarcated in-betweenness in space or time. The ideogram for ma (間) comprises the character for 'gate' or 'door' (門) enveloping the character of 'sun' (暈) – in this sense it refers to the interval between things, from which light can shine through (Big in Japan Contributor 2011). According to scholar Sen Soshitsu XV, this interval in time 'allows all things the regulation and adjustment they require in their progression to' the next season or point in a place (Di Mare, 1990, page 321). This concept of the interval can also be viewed as a moment of potential in a spatial sequencing where transformation can be guided by movements. In Butoh practice, the body is immersed in an interval between space and itself and generates an atmosphere of its own guided by sense communication. The movement in Butoh practice is closely connected to transformation of a particular attitude to the given space. A shift occurs both during practice and afterwards, during because the way we know the space is changed, and after as the somatic memory of the space lingers on.

Japanese philosophers have two terms that can relate ma-thinking to atmosphere, *Ki* (気) or *aidagara* (間柄). Böhme clarifies that these expressions of in-betweenness define atmosphere as an interval between 'the subject and the object; therefore, aesthetics of atmosphere must also mediate between the aesthetics of reception and the aesthetics of the product or of production' (Böhme 2014, p. 43). My reading of this in-betweenness is that it is a threshold, a way to enter and exit out. Butoh practice is an approach which can give embodied tools to manoeuvre through these thresholds of space. It is a way to reflect on the space from the in-between, both spatially and temporally.

With ma, time and space are intervals that are defined as cyclical rather than teleological and linear progression. In urban-making and architecture, there is opportunity to provide markers in time that delineate a circular progression. In his study on Japanese architecture, Veal (2002) reveals markers of time such as natural light, shifting sounds and shadows, material decay and weathering as instances where ma is present. These markers are aspects of time. They are the interface referred to in the organoleptic sequencing of space. The use of ma to delineate a time potential, and the use of Butoh to highlight a corporeal potential, are linked by their origins

13 Ma is a well-known concept in architecture, from Arata Isozaki to Kengo Kuma, and used in Hijikata's and Ohno's writings.

from Japanese thinking, philosophy, arts and architecture. This is a significant continuance of using concepts embedded in the same culture in my research. Using Japanese terms such as *ma* has helped me to further understand the practice of Butoh, through Eastern philosophy and thinking. I have also alluded to the Japanese term for universe, *shinra bansho*, in chapter 2 because again, it could illuminate the techniques used in Butoh to denote a balance between human and nonhumans. Butoh itself uses time as a choreographical factor for its movement sequences.

ma is a way of situating the place where Kami descend.
ma divides the world.
ma is maintained by absolute darkness
ma is the structural unit for living space
ma is the way of sensing the moment of movement
ma is a place where life is lived
ma is filled with signs of the ephemeral
ma is an alignment of signs
ma coordinates movement from one place to another
(Isozaki 1976)

The ‘*ma is*’ list above is taken from the Arata Isozaki’s 1976 exhibition on ‘MA – Space-Time in Japan’ for the Cooper-Hewitt Museum, New York.¹⁴ *Ma* is in constant flow. When space and time are viewed through ways of thought like *ma* or Butoh, defining a body or space becomes unanswerable. The answers would always be different, sometimes contradict each other, and are based on their very ability to change and to transform based on the moment.¹⁵ The importance with using *ma* as a concept in the Butoh is precisely because of its transformative nature, the expansiveness of the atmosphere offered, and the different forms of being that are available and hold poetic potential. There is a strong ethical base to *ma*, Isozaki described it as a ‘way of seeing’, which is a threshold into becoming that has strong hold in relational methodologies such as Butoh. A way to enter into this thinking is to view the body as a part of the atmosphere. This body has several membranes, or thresholds, that allow it to take things in and process them out back again into the atmosphere. A constant permeable communicating. In regards to the Butoh practice, the participant’s *ma* is in the interval where the senses reach in to move them around a given space. In such a state, different relations begin to be formed with the space. I have already written on the aspect of embodied practice as a formulation of relation-making, and perhaps here in the moment of *ma* we come to understand it from the perspective of the in-between. For relations are formed from the in-between, they are the gap between elements that become joined - such as the body in *ma*.

14 A corresponding exhibition, with translated texts by Isozaki, was later (1980) shown in Kulturhuset, Stockholm.

15 A catalyst for this thought was formulated in conversation with a then PhD colleague Thierry Berlemont at my 90% seminar. Thank you Dr. Berlemont.

Architect and researcher Kristina Fridh, also writes about the uncapturable aspects of *ma* in terms of Japanese architecture and gardening, she cites Kunio Komparu (1983) who writes on Noh theatre (dance) in relation to *ma* and space,

‘This word can be translated into English as space, spacing, interval, gap, blank, room, pause, rest, timing, or opening. Indeed, the conceptual prescription for this term varies with the speaker. A(n) architect uses it to mean space, a musician to mean time. As an expression of time, *ma* can mean time itself, the interval between two events, rhythm, or timing’ (Fridh 2004, p. 25).

The correlation between movement, body, space and time is integrated into the choreography of movements. Like Noh, Butoh integrates these elements into its movements and takes them a step further via their metaphorical use of nature’s elements.

Elemental reflections

Imaginations in encounter 3 connect weather-worlds to the ground, nonhumans to humans, and ultimately, through the Body Weather practice, body to space in an entangled poethics. They construct new relations and assemblages in a space. In this encounter, elemental imaginations have been alighted through the concept of weather, particularly clouds, both in bodily practice and interlaced theory. Theoretical threads spread into performed imaginations, and were put into fictional constructs using corporeal studies, vibrant materialities, environmental imagining, atmospheres and assembled relations. These imaginations conjure up an atmospheric logic and conditions for an urban making. Embodied strategies that emerge from the corporeal practice and theoretical visits are; revealing what was invisible to come to the surface; tying body to environment and earth to sky for a vibrant material practicing; performative imagineering, expanding imagination outwards and inwards thus blurring interface between body and outside space; and turning to time as a working materiality for in-between space to orientate different imaginings. The research concepts of flux, time, senses, body, emotion, motion etc. begin to transpire to the surface.

The use of storying with clouds through Body Weather transpires to awaken a collective creativity and evoke transformation. The interventions have explored how an embodied atmosphere-making through bodily exercises, can help in understanding one’s presence in space, and situate an ecological self-using elemental media. In finding a way through enigmatic imaginations, the senses and time were called upon to provide an urban grounding of getting our ‘theory out of the clouds’ and into the soil. The proposed embodied practice could be seen as a form of *urban grounding*, which comes back to the term used in chapter 2 to speak about nature. Here grounding was used as a concept for procuring trust in relational materialities and relational asymmetries present in assemblages that are created by and in space, for and by bodies of varying matter. No matter how unstable or unknown the ground may be, the body is a

threshold through which relations with all other bodies can help to keep a poethical balance in this world. The next encounter 4 looks into relations of many collective bodies. Chapter 6 comes as a result to move beyond the individual body as a further expansion of the deeper practice on a collective level. It is important to investigate the sensorial and corporeal practice in the collective sphere because of the research ties in urbanity and urban-making.

chapter six

encounter 4 Plūris metaphor | swarming

The encounter in the city of Plūris is the final immersion into the intervention entitled Transit - a swarm in 4 movements. The embodied practice now shifts from the singular body to an exploration of many bodies in an assemblage and swarming as a further expansion of the deeper practice into poethical relationality. The intervention is a performance that includes research from Resilience theory, specifically the Panarchy concept, a scientific keystone for ecosystems. The intervention is as a staged choreography performance based on four swarming algorithm movements taken from a written piece influenced by five species. The performance takes place at the AHA festival in collaboration with two dancers from the Göteborgs Operans Danskompani (The Gothenburg Opera Dance Company), Toby Kassell and Ingeborg Zackariassen, and sound artist Linda Oláh. The chapter, an encounter in Plūris, visits supporting theoretical neighbourhoods that help to build groundwork into the poetics of relation through concepts in assemblage theory and swarming behaviour through biomimesis. These concepts help to further understand the role of vibrant relationscapes and collective imagining in urban-making.

As we embark on this last part of the journey, I once again invite you to watch the film essay: Transit - a swarm in 4 movements (Orrù 2017f).

‘The relevant point for thinking about thing-power is this:
a material body always resides within some assemblage or
other, and its thing-power is a function of that grouping.
A thing has power by virtue of its operating in conjunction
with other things’

(Jane Bennett 2004)

‘We know nothing about a body until we know what it can do, in
other words, what its affects are, how they can or
cannot enter into composition with other affects, with the affects
of another body

(Gilles Deleuze and Felix Guattari 1987)

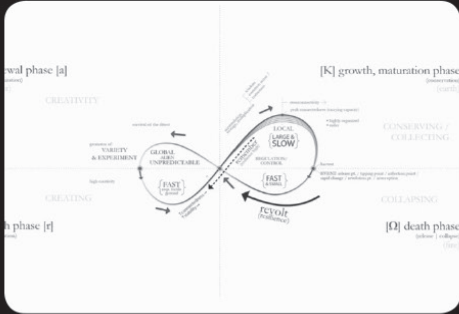
Transit

a swarm in four movements

'a material body always resides within some assemblage or other, and its thing-power is a function of that grouping.'

A thing has power by virtue of its operating in conjunction with other things'.

(Jane Bennett 2004)



choose to stop



always follow the leader



accept being a leader



swarms have no central coordination



collapse death

Transit – a swarm in four movements

Producer: Anna Maria Orrù
Research Collaboration: Jonathan Geib
Dancers: Toby Kassell, Ingeborg Zackariassen
Sound Artist: Linda Oláh
Date/Time: November 3, 2016. 10-14:00

Time-line:

January 2015 - draft lobby performance by Ingeborg & Toby, Seminar on swarming by Anna Maria
Spring 2015 – A series of 3 gatherings with dancers, one writing session with Geib, and 2 rehearsals
October 30 & November 1 – final Swarm Rehearsals - with swarm body
November 3, 2015 - 12:00 - Transit Performance at the AHA festival 2015

A collective performance

the perpetual movement of a flock
of starlings endlessly forming liquid figures, a triangulation of black dots departing,
then suddenly turning back like iron filings attracted by an invisible magnet
moving in the sky.

(from: Jean-Christophe Bailly - ‘The Animal Side’)

Transit is a performance that occurred in the moment using the audience that came to explore a swarming algorithm and its movements within the concept of resilience. The performance lasted three hours with in-between on-the-spot rehearsals, performing and learning about the concepts. I had spent over nine months preparing the research to explore the concept of swarm behaviour as a human body collective and written a choreography symphony published into a small art book ‘Digest 4’ (Orrù 2015d). My intent was to explore how the spatial and corporeal would interact given chosen species overlapped with the resilience theory concept of Panarchy used to understand ecological systems and explained in this section (see Pan and Panarchy). The driving thought was rather simple, given my biomimicry background and teaching, if other nonhuman swarms can collectively survive with their joint movements, how could a human body adopt a swarming behaviour for ecological urban living? I wanted to explore this poetically and simultaneously bring in the complexity and knowledge of construct to the public audience. The intent of this knowledge practice is similar to the other encounters; the biomimicry present in Butoh, the natural farming concept in Paperscapes, and the cloudy weather guidance in Body weather. Again, transferred poetically.

For the past six years I have been teaching on the course Design Systems at Chalmers, specifically each year I run a seminar and workshop on Biomimicry and natural systems. I teach students about natural systems from the unfolded concepts of resilience, planetary boundaries, living systems, biomimicry systems, fractals, network flows, adaptable systems, design and industrial ecology, ecosystems and urban metabolism. It is an assemblage of important concepts

that belong in urbanism but are quite wrapped in scientific constructs, and I believe they need poetic reinforcement. I chose one area to focus on however, they all relate. I am fascinated by swarms, fractals, self organisation, and in my research into urban gardening, I also wanted to query the effect of self-organised behaviour in a garden collective. Alongside the teaching, I belonged to two garden collectives in Stockholm.

As human bodies we also swarm. The use of swarming techniques to analyse human behaviour is a known method, analysis is widely used to understand how human bodies move through cities, line up, or enter/exit in large numbers. In the transit performance, my curiosity is more poetic. I wanted to see how bodies mimicking swarm configurations would affect the space and each other. My course seminar was attended by Ingeborg Zackariassen, dancer in Göteborgs Operans Danskompani, and she was immediately taken by the concept of swarming for a dance form in biomimicry. I had spoken to students that since the Butoh practice, an idea had been brewing to take the embodied methods into a collective ensemble. Zackariassen and I, joined by her dance partner/colleague Toby Kassell, met several times to discover and rehearse what such a performance and project could entail. I had formulated a concept for the performance and shared it with the dancers in hope we would perform it, I wanted to put the swarm behaviour together with the concept of resilience through the resilience scientific construct Panarchy. The following pages outline the ingredients used for the performance piece, the scientific concepts of Panarchy and swarm-behaviour, and the choreography process and diagrams used to explain the spatial intent.

A choreography process

choreography is a process that is in constant change,
like the movement of a swarm
it develops during rehearsal periods and the performance,
when bodies intend to mimic species

(Orrù 2015d)

The choreography pieces went through two transformations as I met with the dancers. The intention was to translate the scientific concept into an artistic bodily enactment. Kassell had experience in swarming from a previous performance and I was keen to see the piece interpreted by him from my choreography research notes. Both dancers were professional dancers at the Opera House but also independent artists.

The original Transit performance sketch for the choreography (see graphic on following page) is a series of five species acts. The prepared piece for the performance interpreted by the dancers (opposite graphic on spread) combines similar species, birds with ants/fish with bees, and uses the in-between acts as transition duets and as a Panarchy mimesis. The original intention was that each species act was overrun by a 'revolt' from the following species - marking the resilience factor. The new swarm behaviour of the following species interrupts the preceding. The main dancers initiate each species supported by the sound which matches the particular swarm phase

and movement. In rehearsals, the dancers used various tools for their transitions. One task was a gesture such as a raised arm or snapping of fingers, or an imagined tableau. Others included choreography such as grips, sliding, pushing and pulling, dragging, and lifting. The techniques were beautiful, inducing images of the various organisms in movement. The performance piece in November took a trajectory from both intended choreography sketches. We had intended to rehearse for 5 days, full afternoons, however, we received students to rehearse for a few hours on the weekend (2 days) prior to the performance. As a result, the performance piece became a different interpretation of the sketches on the next pages.

The dancers Kassell and Zackariassen along with their sound artist Linda Oláh, had reflected on the theme of swarming behaviours, using the provided texts and research I gave them. Their approach included the audience in an abstract interpretation of swarming behaviours. In this collaborative performance, the main idea was that a simple set of rules would be explained and applied, the result being a collective effort to achieve certain tasks involving the execution of movement and sound making. In their work, the trio focuses a lot on the relationship between performers and audience, challenging norms and expectations on both sides and sometimes completely intertwining the two. The lecture performance offered an empirical experience of the artist's translation. They gave four movement swarm-algorithms. Each algorithm had a specific movement appended to it and was assigned with a sound algorithm. The movements and sounds were weaved together using three sound algorithms. What emerged was an interlacing, at times confusing, between movement and sound. The performance became an experience of North, South, East, West, according to the swarm movement, and collapse of a swarm colony in the end. What was not so clear is which species belonged to which movement.

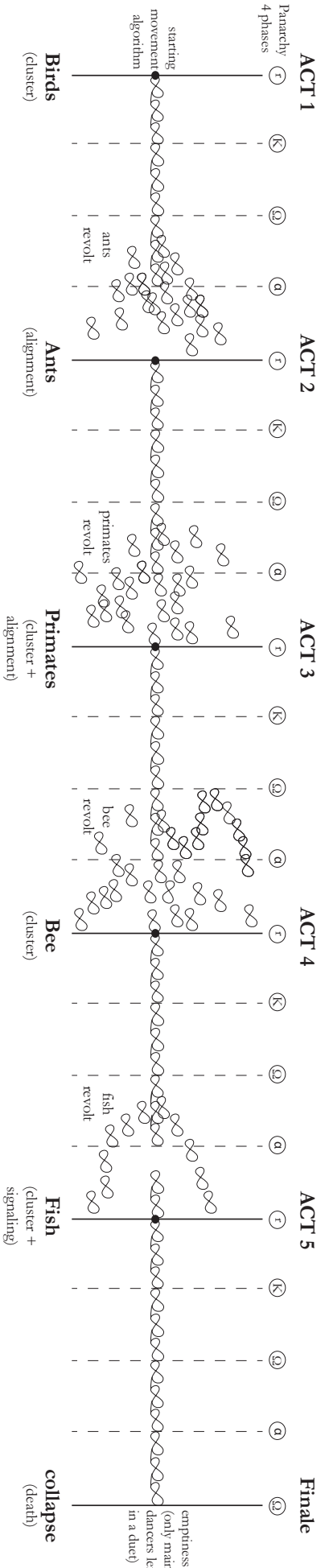
Swarm Algorithms

choose to stop – you can always choose to stop following, be a leader or drop dead
always follow a leader – follow someone you choose as your swarm leader
accept being a leader – let others follow you and test their ability to follow
swarms have no central coordination – follow no one, and make sure not to collide

Sound Algorithms

whisper 'swarms have no central coordination'
a whistle 'any pitch, any kind'
a tone 'choose a note you can hold for long'

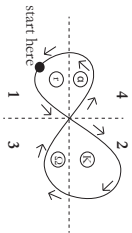
Initial Choreography Sketch



Dance Key:

Revolt: a new swarm is introduced.
Remember: the mimicking, copy of the starting swarm. This is the resilience

Panarchy Sequencing:



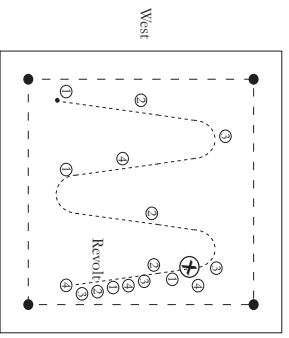
Phases:

- ① birth phase [f]
- ② growth, maturation phase [K]
- ③ death phase [a]
- ④ renewal phase [q]

Choreography parameters:

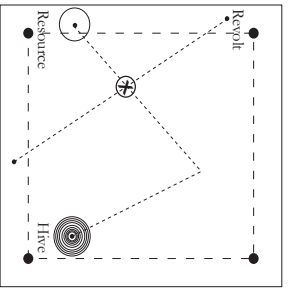
- mass – agents and offspring
- spacing/distance
- speed (movement)
- time
- season
- sound
- resources/energy
- connectedness / alignment / clustering
- reactivity / mimicry
- regulation / control
- direction
- instruction (sequence and frequency)

SWARM DANCE PATTERNS



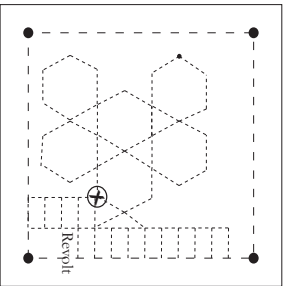
Birds

- cluster
- migrate north to south (winter to summer)
- flow phases: 1, 2, 3, and 4
- seasons: phase 1-birth-spring/summer
- phase 2-growth-summer/fall
- phase 3-death-fall/winter
- phase 4-renewal-spring



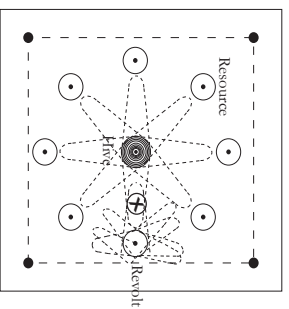
Ants

- alignment
- walk in a straight line
- path making
- resources on edge of atrium
- Revolt: primate intervenes, comes from side of stage, a clash occurs. Main dancer initiates this new specie pattern. Clash of two collonies.



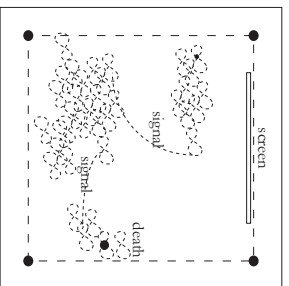
Primates

- cluster + alignment
- primates learn and communicate with tools by building a pattern on the floor
- patterns made from resources - strings
- Revolt: a bee algorithm begins. Main dancer initiates this new specie pattern. Clash of two separate patterns
- Death: patterns left behind on stage, but becomes a mess. Dancers leave atrium space



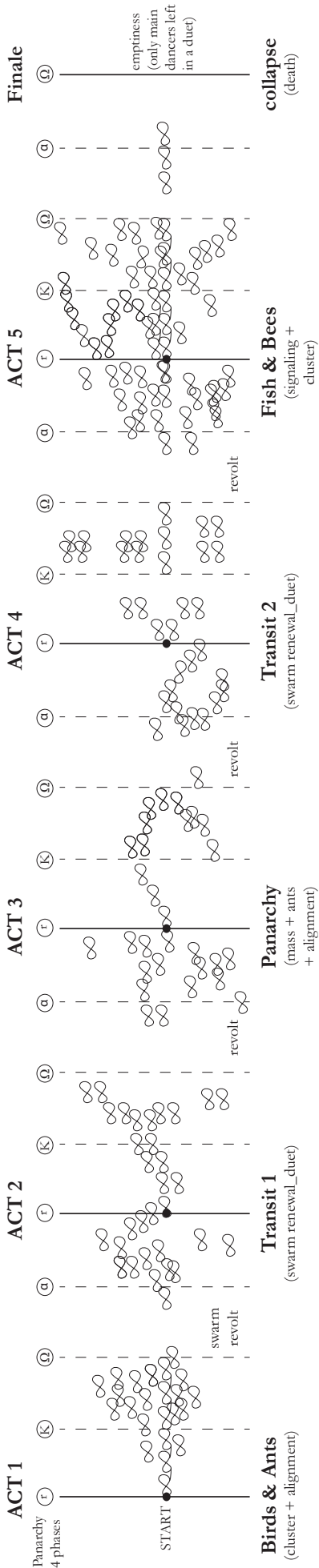
Bee

- cluster
- resources on all edges of atrium - strings
- hive at center of atrium
- get sources from edge, and construct the hive in the center gradually
- Revolt: fish signal a predator. Main dancer initiates this new specie pattern.
- Death: bee colony drops to the ground



Fish

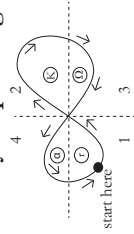
- cluster + signaling
- Fish signal to each other that a predator is near by. Signal is made by a gesture - finger snap
- An imaginary predator. When signal happens, fish change directions and find a new area to swarm (move away from predator)
- Revolt: (non)
- Death: fish swarm comes off the stage. Only main dancers left at the end



Dance Key:

Revolt: a new swarm is introduced.
Remember: the mimicking, copy of the starting swarm. This is the resilience

Panarchy Sequencing:



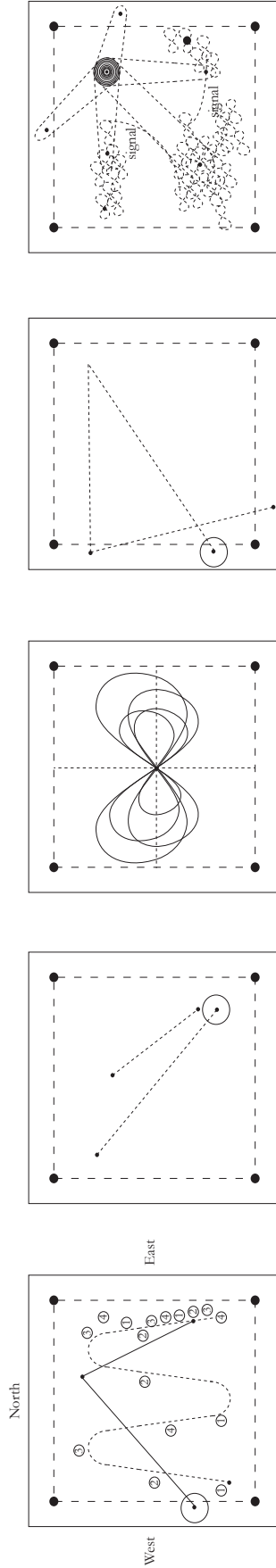
Phases:

- Ⓣ birth phase [f]
- Ⓚ growth, maturation phase [K]
- Ⓛ death phase [a]
- Ⓜ renewal phase [a]

Choreography parameters:

- mass - agents and offspring
- spacing/distance
- speed (movement)
- time
- season
- sound
- resources/energy
- connectedness / alignment / clustering
- reactivity / mimicry
- regulation / control
- direction
- instruction (sequence and frequency)

SWARM DANCE PATTERNS



Birds & Ants

cluster + alignment
migrate north to south (winter to summer)
flow phases: 1, 2, 3, and 4
seasons: phase 1-birth-spring/summer
phase 2-growth-summer/fall
phase 3-death- fall/winter
phase 4-renewal-spring
walk in a straight line/path making
resources on edge of atrium

Revolt: Main 2 dancers left in space
Death: swarm comes off stage

Transit 1

swarm renewal_duet
tasks: gestures, snapping fingers, tableau
stationary/solo

Revolt: swarm returns
Death: falling to the ground

Panarchy

mass + ants + alignment
infinity panarchy loop in alignment
various levels of height
swarm size based on phase
speed based on phase
sound based on phase
(low on ground, high on toes)

Revolt: Main 2 dancers left in space
Death: swarm come off stage

Transit 2

swarm renewal_duet
tasks: grips, sliding
pushing/pullings,
dragging, lifts

Revolt: swarm returns
Death: falling to the ground

Fish & Bees

signaling + cluster
Fish signal to each other that a predator is near by. Signal is made by a gesture
An imaginary predator. Everytime a signal happens, the swarm changes between species
Bees cluster to a hive
resources on edge of atrium

Death: swarm falls to ground
silence

Pan and panarchy

Pan - all universe, everything

God of all Nature

Pan as Mediator of civilization and of the wild, nature

Panarchy – is an antithesis to the word hierarchy. It is combined conceptually and artistically with the influential role from the Universal god of nature – Pan.

(Gunderson and Holling 2001)

Pan the universal god of nature in Greek mythology inspires the Panarchy model, a scientific concept used in the study of resilience as a conceptual model to understand the source and role of change in ecological systems that occur evolutionarily (Gunderson and Holling 2001, p. 21). His attributes link resilience and swarming explored in this artistic research piece.

Pan is the god of dual nature, a wise prophet and lustful beast, he is considered the mediator between the wild, nature and civilization. Half-goat half-Man, this horned, hooved, hairy and horny deity depicts a destabilising role that is best captured in the word 'panic' (Hughes 1986). Pan is full of music, mischief and surprise. On the one hand, sweet music flows from his pan flute (Syrinx's fate), while on the other hand, panic ensues following his loud, frightening shouts (ibid). Pan's paradoxical dual role is both creative and destabilizing evoking an image of unpredictable change. Panarchy's 'infinity' symbol graphically models behaviour between stability and change, and thus order and chaos. The symbol represents the feedback looping in ecosystems with two features: the adaptive cycle, and connections between levels, whether to revolt or remember.

The Transit performance piece is a translation of these modes using movement enacted through the swarming behaviour of five species – thus translated into five performative acts. Panarchy has four phases; birth (air), growth (earth), death (fire) and renewal (water): (see graphic opposite page). The connections interact both in space (global and local) and time (fast or slow) scales. Panarchy is both creative and conserving (The Sustainable Scale Project, [no date]). Speed determines activity; fast levels create, experiment and test; slower levels stabilise and conserve accumulated memory from evolution.

Each panarchy phase has a set location, speed, time, rhythm, relationship and role influencing the performance choreography. Each act is composed by the swarm's mass, spacing distances between bodies, speed, sound, connectedness, mimicry, direction and instruction for sequence and frequency. It is a research process that develops during rehearsals and performance, when we explore movement of the species. Bodies respond to each other and to the space; either leading a swarm or following. Some align, others cluster. Some die, while others survive.

Species swarming

a condensation of what is not only free but truly liberated and activated in the sky, the signature of pure intoxication with living, in a singular and dreamy beat.

(from: Jean-Christophe Bailly - 'The Animal Side')

In the initial choreography sketch, the movements were based on five species: birds, fish, ants, primates and bees. Each was chosen for their specific movement algorithm differentiating in the movement sketch between cluster, patterns and line formations.

Swarm behaviour is a collective behaviour exhibited by animals of similar size which aggregate together, perhaps milling about the same spot, or moving 'en masse' or migrating in some direction – a Transit (Bouffanais 2016). This collective emergent behaviour arises from a simple set of rules and does not involve any central coordination. Group behaviours emerging in the swarm show great flexibility and robustness, such as path planning, nest constructing, task allocation and many other complex collective behaviours (Tan and Zheng, 2013, p. 18).

A swarm intelligence system consists of a group of simple individuals autonomously controlled by a plain set of rules and local interactions. These individuals are relatively simple in comparison to the global intelligence achieved in the swarm. Swarm agents follow their own rules according to local input and group behaviours that emerge based on local rules, information exchange and structure of the swarms topology. As cooperation increases, group behaviours become more complex while the population size goes down and each individual plays a more important role in the behaviour (ibid p. 19-20).

Birds

Birds gather in special formations during migration and locate destinations with aid of a variety of senses via a sun compass, time calculation, magnetic fields, visual landmarks as well as olfactory cues to seek food (Tan and Zheng 2013, p. 19). Flocking may “emerge” from a generic model of attraction among the individuals, short range repulsion, and alignment of the velocities (Ballerini et al. 2008). Meaning, they are cohesive; keeping precise distances, staying aligned at times with neighbours, and in all cases, avoiding predators.

Fish

Fish schools swim in disciplined phalanxes streaming up and down at impressive speeds, making a startling change in the shape without collision, as if their motions were choreographed. Fishes pay close attention to their neighbours when schooling with help of their eyes and shoulder schooling marks. Fish schools aid foraging and predator avoidance (Tan and Zheng 2013 p. 19).

Ants

Ants communicate with each other by pheromone, sound, and touch. An ant with a successful attempt leaves a trail marking the shortest route on its return. Successful trails are followed by more ants, reinforcing the better routes and gradually identifying the best path. Ants roles are based on previous performance; higher success rates intensify their foraging while the others venture on fewer or change roles (ibid).

Primates

The cooperation of primates can be complex, they make tools and use them to acquire food or interact socially, deceive, recognize their kin and conspecifics, and learn to use the symbols and understand the aspects of human language. Primates also use vocalization, gestures, and facial expression to convey their psychological state. Leadership and consensus decision making can occur without verbal communication (ibid).

Bees

Bees are social and cooperative, with significant roles. Worker female bees gather pollen and nectar, build and protect the hive, clean it, and circulate air by beating their wings. There is only one Queen bee. A new queen is created by feeding her ‘royal jelly’, making her fertile. Drone male bees live in the hive during summer/spring, leave in winter when the hive goes into lean survival mode (ibid).

Feedback, experiences and observations

Intervention: Transit

Film: Transit - A Swarm in four movements

Motives: Explore collectivity as a 'whole' movement. Many bodies vs. solo body. Swarm algorithms, and Panarchy, as movement

Main theoretical neighbourhoods: Bennett (vibrant matter), Benyus (biomimicry), DeLanda, Guattari & Deleuze (assemblage theory), Glissant (relation-making), Seeley (swarming), Whatmore (hybrid geographies)

This intervention explores the collectivity and idea of many bodies assembled in space as a movement and behaviour linked to swarm-behaviour. This is a further probe into relational research into human and nonhumans – a staging of naturecultures. Through a mimesis of swarm algorithms, this was a performative attempt at Bennett's conceptual resonance for thing-power.

As an untrained dancer, it took me longer to understand the embodied methodology that the dancers were using in the rehearsal sessions. In the rehearsals, the dancers found it difficult to weave in the Panarchy research but the swarm behaviour was coming out in their floor practice. For a well weaved collaboration between artist and researcher, I have learned that collaborators need to let down guards and really step on each other's professional toes to essentially feel uncomfortable while proceeding with respect; the dancers must step into the science, and I myself into the body work. However, this is challenging to achieve. The dancers had not understood that they were invited into this process to essentially research further with their bodies in collaboration with myself and my colleague Jon Geib. Instead, it brought up an interesting tension and differentiation between art and artistic research from the perspective of the intervention work. In the collaborative work, there is a negotiation between the different approaches, the wordless communication and spatial composition that the dancers formulated, and the research brought in on enacting swarming behaviours. This was the intention for the collaboration, but this symbiosis in collaboration necessitates, first and foremost, a desire to collaborate. From gathered feedback from participants in the performance, many were confused by too many 'instructed' choreography tasks which made it difficult to follow at times, especially with the addition of the sound algorithms which were hard to relate to the body work.

The performance became a lecture of swarm-behaviour instructions using a series of choreographed algorithm movements. This could have been executed in a tone that was less patronizing, but again, the dancers took the floor without motive for collaboration with the research that had been done. This was a miscommunication on both our parts but also due to a reduced amount of participants in the rehearsals which further made the transdisciplinary gesture more difficult. However, on the day of the performance lecture we had over 50 enthusiastic audience performers including the head of the Department of Architecture at that time. The piece rendered the audience as performers. The potential of exploring immersing audience as performers also had benefits for the collaborative research practice.

Intermission

A letter from Plūris

August 23, 2016

Dear Deer,

Plūris is located on the waterfront by the Sea of Embodiment overlooking the Strait of Feminist Practice. It has a large Departure Harbour, and this is the last stop on my travels to this Island. As I arrive close to the city, I became very confused as all roads were bifurcating in diverse directions and it was difficult to grasp this assemblage. Plūris has many centres, many nodes of importance to consider, however there are only two neighbourhoods in this configuration.

I first go to the West-most neighbourhood Dynamic Collectivity because my boat leaves from the north-most neighbourhood, and I will soon go home from there. As I entered Dynamic Collectivity, there is a quick realisation that I am one amongst many bodies present, and that the entire cluster makes up the whole. I understand, that there is heterogeneous connection between all these bodies, be they human or nonhuman, and the important task is to keep relating towards a common intent. They say the best way to experience Plūris is to essentially swarm, and in the rhythm, intensity and affective blooming of swarming, you are able to situate yourself within this ensemble of nodes, processes, intents, spaces and bodies.

As I am swarming, I realise I am mimicking. I am mimicking some form of superorganism. What is it? I think I feel most at place mimicking the bees because I have three hives at home, and have been watching over them now for months. I keep a diary too, and when I come home I can show you all my notes.

They all behave rather strangely, I think they have just left their parent hive and are bivouacked and deciding on finding the next hive-spot. And in this process, a communication starts to emerge between all the role keepers of the swarm. Its most interesting to watch, trying to understand how they are deciding where to make their next home place. After all this enchantment, I realise I have stayed too long and it is time to move on to the second neighbourhood as my boat is leaving soon.

The second neighbourhood Vibrant Relations is very bright. There is a certain ephemeral experiences here where I start to ponder on all the different relations I have had during my trip to the Island of Encounters. They are very important, and somehow all the different approaches come together into one organic whole - space. In all these relationships, I have been an actant. I have been a source of an action and I have been granted an important activity of encountering. I have an agency, but so do all the bodies around me. We have to find ways to relate to one another for the

better good of all of us. In Plūris, the body has taken on many roles. It has been fixed, it has been moving. It has been alone, and it has been in a collection.

I have travelled through a set of multiple relations, however with an important intent. What I have learned is that I have been a nomadic subject through all these encounters, but I will need to explain this to you later when we meet because the thought needs more thinking. And the best that I can do now, is to keep moving, keep thinking, and to keep imagining.

And, to keep swarming towards a poethic intent, just like the bees that I have been watching.

It is time to go home, and I make my way down to the Departure Harbour. From this view, I can see clear across the horizon along the Strait of Feminist Practice, and I am so happy to have arrived here after all these years of travelling. And though I return home, I know that I return to another encounter.

An encounter with you, my dear deer.

With warmest wishes and longing to see you again,

Anna Maria Orrù

Ps: I have enclosed some honey from the bees.

Theoretical neighbourhoods

Poetics of relation

This chapter is a gesture towards thinking about collectivity as a poetics of relation inherent in assemblage-thinking and swarming. All the encounters thus far have explored the corporeal dimensions of space with the contention that artistic approaches can invent new relations between the body and space. They have been explored from a singular subject's perspective, the individual body, becoming conscious of its being in-between many other bodies (human and nonhuman), and of it being part of a larger plural body; the concept of the collective within the compass of assemblages.¹ This plurality is a vital component of considering naturecultures and relaying a significant otherness across all bodies.

Environmental concerns are collective but they are also a matter of individual behaviour and origination (Tomkins 2012). Both scales rely on one another, especially when it concerns the engaged and dynamic moving body in a joint activity of growing together, embedded and strengthened by shared movements. Hence, by finding modes to inspire and encourage collective forms of action, there is a better chance to approach ecological challenges. In this collectivity, a hybrid of assemblages have been emerging till now; when the body is sensing with space and orientating itself (encounter 1), when fiction opens to world-formations (encounter 2), and when the atmosphere reveals itself as a corporeal materiality (encounter 3). The collective has been thought through the lens of the social, clearly present in any urban agriculture scheme, but also alongside literature dedicated to the social workings of these spaces and of the commons.

This collective endeavour is represented by the garden space and for those that pass by routinely, it represents the mutual efforts within. The garden space emerges with a joined set of values, desires, beliefs, joys and appetites. Participants in the space are entangled in a common ethics (poethics) that activate their bodies in a rhythm connected to time; seasonally, routinely, biologically and in *ma*. Sarah Whatmore describes this entanglement as an ethical praxis

¹ The term collective is sometimes used as a generic, vague and ambiguous term when discussing communities. Petrescu deepens the discussion into a co-production and commons of space-making (Petrescu 2017). She supports that collectivity is tied to place, and as such, the collective cannot be separated from the place it is in (Petrescu 2007).

which surfaces in collective occurrences, she proposes that it comes about ‘in the performance of multiple lived worlds, weaving threads of meaning and matter through the assemblage of mutually constituting subjects and patterns of association that compromise the distinction between the ‘human’ and the ‘nonhuman’ (Whatmore 2002, p. 159). A garden is an *assemblage* that makes up this praxis, however for me I find the term assemblage not rich enough to describe all the vibrant processes that occur in this space given all the nonhuman bodies that are also involved in the activity.

Blok and Farías point out that explorative experiments are committed to ‘making, to imagining and to assembling alternatives that might reshape the urban commons’ (Blok and Farías 2016b, p. 5). This has been my attempt by creating encountering choreographies of situated knowledge through use of the body, and in this chapter, I set it into a collective construct of bodies and movements. Each encounter has been working towards an ecological poethics composed as assemblages that are in continuous flux, co-existence and co-becoming, and mutually disturbing each other so that new relations can emerge with alternate urban worlds. Assemblages have been construed as having performative affects and as spatial relation-making entities as discussed in encounter 3. Bennett affirms a connection between thing-power materialism and ecological thinking, she writes that ‘both advocate the cultivation of an enhanced sense of the extent to which all things are spun together in a dense web, and both warn of the self-destructive character of human actions that are reckless with regard to the other nodes of the web’ (Bennett 2004, p. 354). But how does one articulate, coordinate and (re)theorize the urban condition with the wideness of a concept such as assemblages?

In this chapter, I attempt to propose a more dynamic approach in which to grasp the problem by using swarm-behaviour as a metaphorical device. Vibrant materialism too, is a way to approach an assemblage bypassing notions of fixed bodies and structure. The concept of orientation arises, reconfiguring the fixed body or social into an open-ended relation that is always transforming and becoming a crew. I believe both swarming and vibrant materialism provide a demonstration of relations and different bodies, but through swarming-behaviour they can be visualised and thought about differently in terms of relation-assembling. The encounter is dedicated precisely to the notion of the many, inclusion of the other (nonhumans), and the collective capacity to be stewards of poethic magnitude. But also, that the collective is a complex mesh-work of transformations, processes, motives, interactions, and gradients of meaningful roles.² To move towards a poethics, exploring both approaches, assemblages and swarming, unfolded through biomimesis, I will aggregate them into the desired vibrant relationscapes I have been after.

² This sits comfortably with Isabelle Stengers’ depiction of a cosmopolitics, she speculates that this politics of the cosmos ‘entails an ethical-political commitment towards particular ways of exploring the question of how we can live together, ways that remain sensitive to the active inclusion and the making visible of all the heterogeneous constituents of common worlds’ (Blok and Farías 2016b, p. 14-15).

Dynamic ensembles

The heterogeneous assemblages in each encounter help to bring up relational questions between body and space to think through food matters/spaces. I have identified certain critical nodes of enquiry that could be present in order to conduct such a query, for instance; curiosity, imagination, atmosphere, and worlding. A thought that remains is how the gaps between these assemblage nodes get filled in, moved along, and how do they develop their thickness? If the concept of *ma* would apply here then it seems that this in-between sphere is filled with potential. With this query, I wish to bring the aspect of assemblage and swarming alongside each other to expand the situated thinking into a collectively expanded body. Both concepts contain conceptual foundations from agency (encounter 2) and relations (encounters 1 and 3), already discussed. Therefore, both also have a political and social elements already engrained into their co-workings. In addition, assemblage-thinking goes very well with vibrant materialism in terms of including natureculture body configurations and networks to include natureculture elements. However, what's missing is how to look at all these bodies not merely as a configuration or a network, but also as a collective. For even though the assemblage might reference human and nonhuman bodies, it does not come through in a vibrant, collective, organic, movable, and transformable manner with which the encounters coincide. I suppose that bringing in the concept of swarming can enliven the concept.

To begin, there are some outlined differences between assemblages and swarming that I have assumed while I unfold the concepts. The differences tend to be in their conceptual approach in terms of movement, speed, perspective and temporality. Swarming in its organic state is alive and breathing, expanding and contracting and aligns well with feminist critical thinking which calls for open modes of practice. Swarming is in constant flux and movement. It might also be seen as being more dynamic, faster, and more persuasive than assemblages, which might take longer to get all of the components into a directionality of a movement. In other words, the swarm has a better ability to reorientate itself and to create new directions, or orientations, as bodies in a swarm have a type of perspective that moves them in a certain direction. This is vital to consider when thinking about ecological mindsets in a spatial/bodily configuration brings about other modes of ethical awareness. The Transit intervention has enacted the embodied research of this swarm-thinking into a physical and visual construct.

Imagining with swarms as a concept, helps to visualise this orientation of bodies. Swarming can comprehend orientation as one that occurs in several parts in an acting body. Take for example starlings in their evening flights of feeding. If you have been fortunate to witness such a spectacle then you will see how each starling makes up the membrane of a collective movement of bodies in the sky. Each body has a critical distance and location depending on the workings of the whole group, and this unfolds in a sequence of breathing movements traversing along the horizon. Some starlings drop out to fetch feed for the others in the cluster and return to the whole. The intimacy and co-dependence that is inherent in this particular act is beautiful, and

the full spectrum of responsiveness to the surroundings is certainly on display. It brings up an interesting link back to affect (encounter 2) and the idea of the in-betweenness in these intervals; the potential of the in-between, the interval, the *ma*. Within an affect theory approach (chapter 4), this capacity lies in the affective bloom-space of the collective, the spaces in-between, and in their shareable ongoing processes. Affect is born in the in-betweenness integral to a body's becoming. In swarming, bodies might overspill (or drop into) a cluster in order to feed and then return back into the cluster for the benefit of the cluster, feeding the flock. The flock survives because of this affective moment. In an assemblage, you don't have this conceptual visual support to envisage with between all the components, though an assemblage also works on an affective-based capacity. I find the assemblage framework machine-like and too operative to work with when conceptualising through bodies. In using embodiment to understand natureculture relations and bringing them to the fore when doing urban thinking, the idea of a swarm-behaviour is much more inept.

Swarming conceptualizes the body as a collective working together as a whole towards a form of survival, or a form of movement and poethic behaviours. Within this whole, each unit has a flexible role and works towards the good of the collective. Perspective is necessary to keep in order to construct different worlds or formations, and also to have a way to think of packaging a collective movement conceptually. Repeatedly, lines drawn and routes arise in a performative manner to develop the direction or perspective that a collective body(ies) may be going towards. There is a boundary of intent within swarm thinking, whereas assemblages don't, in the same way, hint the direction they move in or towards. Therefore, when the ambition for transformation arises in a swarm, it is of course not only on the individual level but also a collective metamorphosis.

One more approach from encounter 3 to think with is temporality. Even though time may be an ingredient in assemblages, it holds again a different locus in swarming. Here time moves, it shifts to the top, bottom, around, in ways that are unpredictable and uncapturable. Whatmore points out an interesting cartographical aspect of spatial time, where space/time are generated in and by movements in association of a heterogeneous type. By bringing in an interesting connection to mapping practice, she speculates that these 'hybrid mappings are necessarily topological, emphasizing the multiplicity of space-times generated in/by the movements and rhythms of heterogeneous association' (Whatmore 2002, p. 6). Hence, choreographing and mapping embodied practices is an opportunity to find modes of appreciating spatial time constructs too.

Having said all this, both swarming and assemblages are critical to uptake in urban-making in terms of their heterogeneous approaches and working as a whole, but also being a sum of the parts. I think both concepts go together very well in terms of complementing each other. The parallel between them is also reversible in that the concept of swarming has helped me to see that it partakes in the formation of an assemblage, therefore the swarm not only makes the assemblage

but it also creates a dynamic relation between its nodes and the movements in-between. Ahmed's concept of orientation (encounter 1) has a similar and supportive procedure of lived experience and relation-forming that is illustrated in assemblage and swarm thinking. She writes,

'It is not just that bodies are moved by the orientations they have; rather, the orientations we have toward others shape the contours of space by affecting relations of proximity and distance between bodies. Importantly, even what is kept at a distance must still be proximate enough if it is to make or leave an impression' (Ahmed 2006, p. 2-3).

To develop these thoughts further, I have taken an artistic and embodied systems approach utilizing the concept of swarming as a composed performance (encounter 4), linking it to larger complexities of Panarchy and resilience studies.³

Situating assemblages

Thus far, each encounter formulated a symphony of 'relations' using methodologies such as imagination, embodiment, staging fiction, performativity, atmosphere and metaphors with four entry-points; relation, agency, affect and assemblage. The theory of assemblage was created by philosopher Gilles Deleuze in partnership with Felix Guattari. Contemporary philosopher Manuel DeLanda (2006) views it as an approach to social ontology, whereas world things are seen as objects that are in processes of assembly. DeLanda (2006, p. 3) explains,

'This theory was meant to apply to a wide variety of wholes constructed from heterogeneous parts – Entities ranging from atoms and molecules to biological organisms, species and ecosystems may be usefully treated as assemblages and therefore as entities that are products of historical processes.'

The inclusion of historical processes brings in an aspect of time which is also included in the assemblage and the research has worked with time as a material property. However, if we think of time as *ma*, then this temporality is not only a linear progression (Orrù 2015f). Assemblages themselves are asymmetrical and this opens up for curiosity and transformative processes. DeLanda proposes 'assemblages' that formulate and frame all the intermediate entities contained between the micro and macro from a visceral level. Hence, the binary trap of micro to macro can be avoided and instead be expanded into an interconnected kaleidoscope of connections, relations, properties, agencies and experiences. For this to occur, I have been supporting the use of the body to activate the assemblage. Furthermore, the benefit of assemblages is that they steer away from creating a binary approach to a particular set of options. DeLanda (2006, p. 32) warns that 'the terms 'micro' and 'macro' should not be associated with two fixed levels of scale but used to denote the concrete parts and the resulting emergent whole at any given spatial scale.' Meaning that the relations between the micro and macro scales can happen at any location, particular scale

³ Both scientific trajectories come from my ecological discoveries and co-workings with the Stockholm Resilience Centre when we collaborated on the project entitled Foodprints (Orrù 2012).

and time. Assemblages consider the notion of power relations, and can take into consideration both human and nonhuman actors. (e.g. other species, documents, institutions, artefacts etc.). Assemblages go beyond simple explanations of who is in power, because often there is no central coordination, and they cause curiosity, ‘the need to “follow the things themselves”’; to track the messy, variegated, and most often unpredictable entanglements that compose real-world situations, rather than resorting to pre-existent categories like ‘nature’ or ‘society’, ‘subjectivity’ or ‘consciousness’ to do the explanatory work’ (Clark 2011, p. 33).

The relations brought up by the encounters are connected through emergent properties that cannot be predicted precisely, but can be crafted for evolving potential or meaning. For instance, in *Body Weather* the move to use clouds and weather was to create an atmosphere logic of earth and sky, tied to the ground. Using species swarming to create an assemblage performance, conjured up patterns of movement that were similar to swarm behaviour experience. In this bodily conduct, there was an affect between bodies that moved them congruously around the space via a simple set of instructions. Thus far, I have tried to demonstrate how assemblages can have affordance to alter everyday lifeworlds, perceptions, patterns and relations to each other, ourselves and the environment, viewing them as a form for transformative practice. However, the challenge lies in what components are necessary in the assemblage to allow for these conditions to transpire? The intention has been to explore these combinations and components through interventions that engage the body(ies) as driving mediums. This is where the concept of swarming enters in to assist.

Swarm thinking

To enter the concept of swarming I have chosen to study honeybees – *Apis Mellifera* – investigating their behaviour as a collective decision-making process during swarming.⁴ Their decision-making comes alight through bodily, face-to-face communication, and orientated goals. Biologist Dr. Thomas Seeley refers to this as a model for democratic decision-making, one in which a collective behaviour emerges. He explains that bees ‘succeed to working together to achieve shared goals...We can see it further in their harmonious societies, wherein tens of thousands of worker bees, through enlightened self-interest, cooperate to serve a colony’s common good’ (Seeley 2010, p. 3-4). His research examines collective behaviour in a swarming procedure when a portion of a hive swarms to separate from its parental hive. Engineer Roland Bouffanais (2016, p. vii) further elaborates that highly self-organized swarm colonies exhibit a remarkable aspect of nature, he says that the swarm process is ‘one of nature’s most sophisticated achievements in collective operation.’ If you are ever lucky enough to encounter a swarm flying overhead, you will also agree that it is an awe-inspiring display of biological genii, and the entire

4 In 2017, I became a bee-keeper for three hives. To my dismay, and luck, one hive swarmed early in the month of May adding to the experiential and bodily experience of a hive and a deeper understanding into this organism’s world. For a bee colony, to swarm is an utmost expression of evolutionary success. They bivouacked up in the tree while hive-hunting for their next residency. And then, they swept away to their new home, continuing their important service to all bodies – pollination.

experience becomes embodied by sight, sound, nerves, and emotion, not to mention the physical appeal of chasing the swarm to see where it settles down.

I have mentioned that another important feature in swarm behaviour is how the whole becomes greater than the sum of its parts. Bouffanais explains that a swarms intelligence produces extremely ‘robust and flexible collective actions’ (ibid). In this collective each part influences the sum but it is the group’s effort that drives the entire colony and decision-making (Seeley 2010, p. 6-7). Swarms are a superorganism; Seeley (ibid, p. 25) describes this as a ‘single integrated unit even though it is a multitude of cells, the superorganism of a honeybee colony operates as a single coherent whole even though it is a multitude of bees.’ These social behaviours can be the quintessence of thinking for ecological mindsets of spaces as a collective swarming society.⁵ The act of swarming provides diverse potential phenomena to explore with while unfolding the concept: repeated interactions, dynamic patterns and responses, behavioural algorithms, coordinated movements, sophisticated social and spatial structure, intercommunication abilities, and the transfer of information (Bouffanais 2016). There is also a diversity in swarming behaviours regulated by sensorial modalities, cognitive abilities and behavioural responses that determines its scale, speed and motivations wherein informational processing is a central tenet at the core of this dynamic complex system (ibid, p. 12-13). Bees are particular in that they have a unique distributed problem-solving skill, from deciding on a new home after having swarmed from their original hive, to the display of resilience in order to withstand challenges once they have swarmed. What occurs when we take this collectively performed task and process, not just to optimise systems, control crowds or to avoid chaotic exposure, but to use it for a poetic approach to understand collective ecological urban behaviours and performativity?

To examine this question I would like to use the example from the swarming process of finding a new nest-site when bees have left their parent hive and are bivouacked nearby while deciding where to go. During this period, the bees communication involves a constant interaction between them; reporting sites visited, confirmation, open debate about site options, and reaching an agreement for the new dwelling place. This process has a recognition of multiplicity and of differences. The organism stays with the challenge using a heterogeneous decision making and collective communication.

Briefly, there are five behavioural steps taken from the bees, configured from Seeley’s (2010, p. 220-236) accounts and research, that could be transferred to ecological urban-making:⁶

- A heterogeneous decision-making group: This is a group or assemblage with shared

⁵ There has been numerous research which onsets from swarm-intelligence into artificial swarm design (Bouffanais 2016), be it in robotics (Tan and Zheng 2013), design principles (Ballerini et al. 2008), or other highly complex networkings, the intention here is rather a more poetic sense-making approach rather than the specie engineering capacity of thinking with swarming.

⁶ These five steps are part of the research conducted by Seeley (2010). He introduces a tricky anthropomorphic vocabulary in regards to bees which can bring up certain existential questions about nature which is not my intent. For example, can bees really reveal mutual respect? For the sake of the metaphor, such alignments refer to bee communicative action.

interest and mutual respect. The success of an entire colony depends on their common aim.

- Reduced leader's role and even distribution of power: a centralised decision-making body must be reduced because it reduces a group's collective power to uncover a diverse set of possible solutions (ibid, p. 222). A communal atmosphere of open inquiry must be created, taking summed knowledge to assemble a wide range of possible actions.
- Pursuing diverse solutions: this decision-making includes a large and diverse search team wherein each individual explores on their own using their own body. This can also be acquainted with the concept of agency and agency-making.
- Aggregating knowledge through debate: This process is interdependence (collective communication) and independence (based on each bees intuition). Main scout-bees (3-5%) embark on the search on their own to find a suitable site. Returning to the swarm, they communicate the location via waggle dance to find interested recruits. Next, each recruit flies to the location they find most appealing, and return to the hive to perform the same waggle dance or choose another. In the end, the 'most' recruited and amplified waggle dance wins and the decision for a new site is concluded in a democratic process.
- Quorum response for cohesion, accuracy and speed: A quorum response is reached when a critical threshold number is reached and agrees on a site. In this instance, the bees behaviour changes from the waggle dance to a piping sound. The shift in behaviour accelerates consensus and the bees prepare their muscles for flight.

The entire process is encoded in the bees' bodies, more specifically, in the hardwiring of their nervous system. As there is no central coordination, the bees do not just follow fads, but independently and physically explore each possible and proposed site based on their preference. The entire swarm procedure is bodily because it entails a going to and fro, from site to bivouac to new site. In the process, the swarm also creates a cartographic layout of a space and its surroundings which is communicated to the rest of the bivouac through a choreography. This dynamic assemblage relies on multiple heterogeneous approaches and agents, and in forming a sense-making judicious collective process. The potential of aligning differences toward a shared lived experience is important in maintaining a heterogeneous process of multiplicity (Geib 2017).⁷ The procedure is an in-depth look into the communication and relation-making components of a swarm; having a common aim, decentralising power so that there is a multiplicity of possible actions, encouraging individual experience and voices to emerge, fostering dialogue, and reaching consensus and action leading to a shift in behaviour. These five approaches can be

⁷ I refer to research conducted by my colleague Jonathan Geib on the subjects of multiplicity and multivocality, the importance of the 'many' voices, in any collective process (Geib 2017). His use of 'multivocality' emphasizes the ongoing dynamic of articulation of specific voices (participants, groups, logics, disciplines, etc.) giving autonomy and respect to different participants and knowledge perspectives, but also he de-centers the designer-researcher's role to inhabit a more dialogical approach.

inspiration for ecological endeavours in urban-making.

The concept of swarming shakes up assemblages, and turns the various aggregates in an assembly into a multitude of encounters; on decision-making, on collective behaviour, for communication, for acceleration and efficiency, and to round up the group to make better informed decisions for the benefit of the environment. These decisions are based on a coming together of a multitude experience of collected situated knowledges.

An act of (bio)mimesis

The act of using swarming to enter into assemblages has been an act of biomimesis through the use of its metaphor. My effort is to situate these practices into a genre of Biomimicry, a discipline I have been involved in since 2003 and my research here aims to be an extended and continuing contribution to this field in terms of embodiment and situated practices with naturecultures. Biomimicry was coined by biologist Janine Benyus, whose establishment has become a resource for designers, architects, and many other disciplines. Biomimicry is a heterogeneous approach, it involves biologists at the design tables to help sift through nature's solutions to a given set of design challenges. For instance, design inspirations for thermoregulation, such as insulation of a building, can be found from animals living in cold climate regions. Methods could come from the process of bear hibernation, or from the skin design of penguins. These solutions taken from evolution come from nature's 3.8 billion years of a research and development process making it all the more sensible to tap into the inspirations that can be found, each ecological in that they are a part of a wild nature (Benyus 1997).

Biomimicry uses a triad design template: form, process and system. 'The form of an organism, or a place, adapts to its natural setting over long periods of time. There is a metabolic sequencing in this (process) of evolution, and it relates entirely to the living ecosystem (system). In nature, space has been created and the organism body adjusts' (Orrù 2015f). It is important to briefly explain the words biomimesis, biomimicry and biomimetics, though similar, the terms cause confusion. The word Biomimesis – bio for 'life', mimesis for 'to imitate' is an important form of action, and out-dates biomimicry in that it was a form of inspiration that could also be seen in Da Vinci's elaborate designs and inventions. Biomimicry on the other hand, is the discipline of doing biomimesis and it is a strongly ecologically-centered practice different from certain approaches in biomimetics. Biomimetics at times considers unethical and unecological solutions to ecological challenges, such as genetically modifying (GMO) goats to produce milk with the same protein found in spider's silk to mimic its strength which is 5x per ounce stronger than steel. It also sometimes finds solutions that get used for military technology (Pawlyn 2011).

Metaphors have been used considerably to illustrate human to nature relations. Terms such as 'Superorganism' (Girardet 2008, p.108-109) or 'orgasmic metaphor' (DeLanda 2006, p. 8) have been devised to describe the relationship of humans to nature in cities and societies. However, such term classifications lack the dynamism of re-enacting and immersing participants

in the mimesis.⁸ In encounter 1 through 3, the use of performative and operative metaphors in the Butoh practice becomes amplified if placed within the construct of biomimicry. Metaphor thus far has been utilized as a fiction and as role playing with intent to connect to nature on an embodied level. The dynamic metaphor of a swarm, however, becomes interesting in terms of its bodily aspect and imagination, and therefore, the consequences of the body to body to space/time relationships. In encounter 4, metaphor has been moulded into movements creating diverse accounts of linkages and relations based on position and instruction. In Butoh there are two modes - mimesis and metamorphosis – which are important because they create a way to imagine the ‘other’ and another behaviour towards and with nature. Hijikata’s training instructions to his pupils were not just about choreography movements but they were also about using elements to imagine with (Baird 2012, p. 7). In this imagining, he gave students metaphors from nature; rock, wood, wind, mist or light, or from nature’s organisms such as a snail, snake, or bird. Likewise in the Transit performance, participants were given a swarm-algorithm to move and imagine with. It is not a frivolous use, the metaphor chosen is critical because it sets up a ‘relation’ with the surroundings in which the aim is to also alter the relation with nature in the process.

These learning methods from Butoh parallel with the practice of biomimicry in which nature is explored as an inspiration to tackle diverse worldly challenges. Though they contain similar sequences, Butoh is practiced with the body and not just from the biological research. It therefore adds a new layer of complexity to this relation by taking nature as inspiration by re-enactment. The use of metaphor can be a critical tool and architects Richard Lister and Thomas Nemeskeri agree that ‘exploration and metaphor are key’ modes to be exercised especially at early stages of developing a new set of values. They are inspired by Anthony Weston’s work in the field of environmental ethics in which he too supports that ‘a great deal of exploration and metaphor is required, from which only later do the new ethical notions harden into analytic categories’ (Lister and Nemeskeri 2010, p. 110). By placing the Butoh body ‘organism’ into a given site, it is able to decipher the tacit spatial knowledge through its dynamic enactment of the metaphor (Orrù 2015f). When you relate Butoh to biomimicry as an active process rather than only a mimesis, its interaction with time and space can be used to re-articulate, re-formulate, and produce new meanings for architectural spaces and everyday rhythms. Hence, there is an association between the choreography, the conceptual foundations, and the potentials for practice in this hybrid arrangement of time, space, and nature.

8 DeLanda (2006, p. 8) refers to social ontology as an ‘orgasmic metaphor’, which he sees as an obstacle due to its reduction of a very complex form to a superficial analogy between society and the human body. I also have the same inkling with Herbert Girardet’s analogy of the ‘city as a superorganism,’ where he begins to compare the layout or urban space in terms of the human body (roads as blood veins or the nervous system, waste landfills as the stomach, brain as the learning institutes such as schools and universities etc.) (Girardet 2008, p. 108-109). Although useful at its time, it proposes a dichotomous approach to the relation between city and body, humans and nature. In so that it lacks a critical outlook on how the relation with nature within the urban context could be heterogeneously perceived.

Vibrant relationscapes

After looking into the complimentary relations between assemblages, swarming and biomimesis, vibrant materialism ties together all approaches in terms of the relations expressed. Bennett's mode of materialism helps to sort out the issue of the fixed body (subject) and fixed space (object) although I suspect they are not entirely dispensable. Vibrant relationscapes also help to get away from this fixed construct to understand that the human body, and other nonhuman bodies, are engaged in a continuous dynamic relationship with matter formations and processes. Swarming as a metaphor helps to understand that these assemblages are in movement, but that they also work as organic wholes where all bodies are constantly engaged in an ongoing, transforming network of relations.

A key element emerging throughout each encounter is a relation-making that is dynamic and formulated through the body(ies) in movement such as in a swarm. Glissant captures these relations in their dynamic capacity and swarm-like tendencies, he expresses;

'Relation is active within itself...For movement is precisely that which realizes itself absolutely. Relation is movement [...] Not only does Relation not base its principles on itself (rather with and through the elements whose relationship it conducts), but also these principles must be supposed to change as rapidly as the elements thus put into play define (embody) new relationships and change them [...] because its work always changes all the elements composing it and, consequently, the resulting relationship, which then changes them all over again' (Glissant 1997, p. 171-172).

Neither space nor relation is static, and both condition one another. They are in a constant dynamic interaction according to a supposed 'encounter' with one another. There is an agency inherent in this vibrancy of relating corporeal assemblages and movements. In this encounter's exploration, the aim was to horizontalize relations between humans and nonhumans in order to give them equal ground for efficacy by re-enacting their conceptual behaviour.

Collective imagining

I have imagined the fixed body, the moving body, and the collective body through a different set of relations. I have related assemblage to affect theory to help think through the in-betweenness in a configuration. It could be said that affect drives the distance between each body, moving bodies closer together or further apart depending on what the assemblage requires in order to reach a poethic ensemble. Many of the journey's ingredients come together in encounter 4; the concepts of imagination, atmosphere, making fictions, orientation, curiosity and movement in a certain direction towards a certain intent. Imagination can help to manifest a commons, unearthing its fluid modes, and managing the complexity of urban challenges, such as food-related entities. It does this by triggering a hybrid creativity with in its collective capacity. Transformative participation necessitates ongoing curious and creative modes of encounter and

art-related practices can provide critical modes of practice for the poethics of a space to emerge and for exploring a set of evolving relations.

Viewing assemblages through swarming has been an exercise in biomimesis in which the swarm metaphor was used to think with. The use of an activated metaphor provides opportunity for setting up dynamic methodologies for exploring and strengthening relation-making. In *Transit*, the biomimesis was re-enacted as a performance. The theoretical neighbourhoods were conceptually ground by assemblage theory and swarm-behaviour concept. In both instances, there is an awareness that the individual body acts within and is part of a collective whole, and the art practice helps reveal this by giving it a certain visibility. The importance on including swarm-thinking in assemblage thinking is to give it a metaphorical vibrancy to work with contextualizing the embodied practice further in line with naturecultures, and remembering that assemblages must take into consideration that; they are in constant flux, and, they are based on an individual working as part and integral to a whole collective transformation.

Furthermore, swarming and biomimesis have helped to articulate assemblages with the urban condition by enlivening it into an embodied methodology as well. In coinciding this with urban-making and collective participation, there is an important aspect to consider in terms of the making of a commons. One of the tensions in a swarm is the relation of the singular to the plural as a collective, but the bee swarm procedure brings up an important method in the making of a commons. The approach wherein a multiplicity of voices emerge and must be considered, correlates to the experience of urban gardening collectives. Participants in a gardening collective bring many beliefs and mindsets to the space, and this hybridity can be best approached through artistic research - such as through the lens of theoretical swarming and choreographed algorithms.

I have spoken of assemblages and swarming in a poethic construct. In an assemblage, the spatial and unfolding components are present in a relational mechanism that bring things together or separates them. Therefore, assemblages take into consideration both the material and non-material, and swarming places them into a dynamic movement. Life's assemblages and ethical ecological mandates are swarm-like. In the process of transitioning an assemblage into a lived experience via way of the body, we experience this poethics for ourselves and have the situated knowing to commit or to make a decision, similar to the recruit bees. Hence, we all become recruits for one another for making poethical spaces in urban-making by the mere act of each contributing to the process using our own bodies.

PART THREE

FINDINGS

The “new” would not involve the loss of the background. Indeed, for bodies to arrive in spaces where they are not already at home, where they are not “in place,” involves hard work; indeed, it involves painstaking labor for bodies to inhabit spaces that do not extend their shape. Having arrived, such bodies in turn might acquire new shapes. And spaces in turn acquire new bodies. So, yes, we should celebrate such arrivals. The “new” is what is possible when what is behind us, our background, does not simply ground us or keep us in place, but allows us to move and allows us to follow something other than the lines that we have already taken

(Ahmed 2006, p. 62-63).

chapter seven

the end of the journey

Ahmed greets us after we have gone through each encounter. The journey is not over yet, for now we must reflect on what we have experienced. All the natureculture voices have brought us full circle back to our beginning mantra from Strathern. If you recall:

It matters what thoughts think thoughts.
It matters what knowledges know knowledges.
It matters what relations relate relations.
It matters what worlds world worlds.
It matters what stories tell stories.

(Strathern cited in Haraway 2016b, p. 38-39)

But I wish to add this line to her mattering above:

It matters what bodies we body with

The magic of arrival

In order to look at different movements, performativity and complexity in urban-making, I have brought the body into a spatial discourse to explore relationality and embodied knowledge generation. The starting point has been a concern with food behaviour in urban environments and the passive use of urban green spaces, and through these investigations, the corporeal research became critical to involve. The research challenges an understanding of relationships; with others, with nonhumans, with space and matter, with time, and with nature, and how to 'be' in the world, or rather, how to poetically 'become' in the world given the gross impact from environment degradation. I aimed to build on an architectural understanding of production, thinking, making and relating, using artistic-based embodied methodologies, something which the urban gardening research conducted in phase 1 could not have investigated in itself. The urban gardening research required a deeper embodied immersion to understand urban-making and context in terms of body/space/time. This exploration was also motivated by a poetic drive which required more profound methodologies and approaches. Therefore in phase 2 (the encounters), the overall aim became to search for methodologies that were grounded in the embodied, relational and contextual (situated), and which could address the needs to enhance new kinds of commitments and poethics concerning contemporary naturecultures and urban-making. Approaches through the encounters and their theoretical neighbourhoods made way for the suggested methodological cartographies and choreographies.

Throughout, the methodology and the theoretical neighbourhood underpinnings, have belonged to a mode of critical feminist spatial practice in search of and for generating embodied methodologies. These methodologies have intended to contribute to the environmental discourse around urban gardening and in a wider context of urban-making. Feedback, experiences and observations have been provided at the end of the interventions section of each encounter. In this chapter, I reflect and conclude discussions generated through the research to explore the body as a critical and refined instrument for urban-making in four sections:

1. A summary of feedback, experiences and observations – a distilled list of findings from artistic-experimental, explorative and pedagogic architectural interventions generated through *Butoh*, *Body Weather* and *Swarming*.
2. Discussing findings – reflections and conclusions drawn from these encounters when related to theoretical neighbourhoods as (situated) encounters.
3. Drawing conclusions – discussing insights and implications on new (ecological) commitments to naturecultures, suggesting a methodology that can bring about a range of approaches into an embodied, relational and situated poethics of urban-making.
4. Further research – suggest areas of research and agenda-setting

1. Summary of feedback, experiences and observations

Each research intervention was followed up by direct dialogue with participants, comments from workshop evaluations and film essays which served both as documentations and as reflections. A selection of direct comments from participants with feedback, experiences and observations, have been presented throughout each encounter in chapters 3-6. In this section, I have distilled the main findings into five categories.

From the perspective of building a methodology, the most important findings here were how the embodied interventions opened up for new relational aspects of corporeal presence and awareness in the given situation; multisensorial experiences, bodily limitations, movements and spatial interaction etc. As a reminder, the films essays related to the encounters were:

- Encounter 1: Film 1 – Bodily choreography, Film 2 - Stone Butoh, Film 3 – Frauke How to be invisible¹
- Encounter 2: Film – Organoleptic Interfaces
- Encounter 3: Film – Body Weathering
- Encounter 4: Film – Transit

Building on experiences from phase 1, each encounter has been an alternate way of using the body and placing it into heterogeneous constructs:

- through Butoh choreography and reflective body work to form a corporeally situated practice
- through harnessing the imagination to form narratives, usually submersed in and as nature, but also using scientific knowledge
- through thinking with clouds and weather as extending the body into the wider space as an atmosphere
- through harnessing a dynamic mode of biomimicry, by mimicking the collective behaviour of swarms

Every encounter remained continually curious to explore spatial practice and what role a body(ies) can take in terms of crafting relation(s) to space. In all cases, it was the process rather than collected data or film-making that was the focal point. Situating these encounters in diverse spaces, other than urban gardens, has helped in reflecting and focusing on the body.

In the distilled summary list on the following page, I have placed the feedback, experience and observation outcomes into six main themes of findings which will be discussed in section

¹ Film 3 belongs to Butoh dancer Frauke, with copyright permission to use images from the film reel. This film does not form part of my publications list as I have not produced it.

2 of this chapter, related to the theoretical neighbourhoods as (situated) encounters and I have indicated which context of relevance they belong to: situated, ecological, poethical. Although, the poethical context runs through all of them. The emerging areas for findings input fall into six categories, also indicated is an attempt to support them by the key theoretical neighbourhoods which support each of them (see figure 2 in chapter 1):²

1. Reflective and situated Butoh body work - corporeal feminist spatial practice, situated knowledge, performativity: sensorial and dynamic, relationality, critical fiction, world-formation, spatial agency, spatio-temporal
2. Spatial and Spatio-temporal conditions – situated knowledge, performativity: sensorial and dynamic, spatio-temporal
3. Corporeal to space interaction and dialogue – corporeal feminist spatial practice, situated knowledge, performativity: sensorial and dynamic, relationality, critical fiction, affect, spatial agency, assemblage theory
4. Natureculture-making – situated knowledge, performativity: sensorial and dynamic, relationality and vibrant matter, world-formation, affect, agency, assemblage theory, swarming, biomimicry
5. Input for architectural and urban-making practice – corporeal feminist spatial practice, situated knowledge, performativity: sensorial and dynamic, relationality and vibrant matter, critical fiction, world-formation, affect, spatial agency, spatio-temporal, assemblage theory, swarming, biomimicry
6. Knowledge-generation requirements

Summary list – emerging areas for findings³

Reflective and situated Butoh body work

- Butoh uses a dynamic metaphor for world-formations and storying (1, 2, 3, 4).
- Butoh allows for a spatial practice that incites grounding, situated knowledges and perceiving time as a non-lateral and sensorial experience (1).
- The immersions give attention, awareness, tension, safety, grounding, calmness, heightened sense of space and senses (1).
- The immersions provide an increased corporeal agency and embodied trust (1).

2 There is a difficulty with assigning theoretical neighbourhood to each category separately as they are all entangled. For instance, corporeal feminist spatial practice could be listed in all categories. What I have endeavoured to do is to distil the theoretical underpinnings that come to the surface most in each.

3 Note that the number in parenthesis denotes the encounter from which the summary is retrieved.

- This atmospheric and wider body makes an important connect between the action in the space, behaviour, senses and imagination. It allows for new impressions and insights to appear in the behaviour, in the movements and in the thinking patterns, also described as a creativity and energy entering the wider body and space (3).
- Slowness is a main activator of Body Weather bodywork. It is a practice of proficiency; absorbing and exaggerating the attention and energy used to explore space (3).
- Body Weather bodywork is a dynamic form of imagination, a force. To know things again we must unlearn and make them unfamiliar, so that we can recognize them again for the first time. The unknowing requires time and slowness to deepen the discovery (3).

Spatial and spatio-temporal conditions (situated context of relevance)

- To experience the intensities of nature/space is a sensorial experience and provides a altered sense of time and spatiality (1).
- This state seems to reveal unfamiliar experiences of the given surrounding. It is an out-of-comfort zone experience and renders the unknown-known, revealing the invisible (3).
- Slowing down movements creates potential for more acute precision to the space and to movement; it is a play with temporality and space (3).
- Collective moments bring different responses and play vital roles in spatial-making (3).

Corporeal to space interaction/dialogue (situated context of relevance)

- The body carries space and space carries the body (1, 2, 3, 4).
- Butoh allows a vulnerability and emotive understanding of space (1).
- Increased vulnerability leads to an understanding of how reflective space practice allows a certain knowledge generation of space to occur through Butoh. This is a knowing of space from a completely different perspective (1).
- The shifting of roles – as producer, participant, performer and observer/audience – is very important in understanding *relationscapes* which are critical in exploring *relationality* in urban-making (1).
- Metaphor plays a vital role in embodied methodology; both in individual reflection work, shared work and also in a way to reconnect to space as a bodily atmosphere (3).
- Imagination and atmosphere, included in the sensorial aspects of practice, are equally important methodologies which extend the internal body into the external space (3).
- In Butoh, material surface experiences can be an awareness of spatial tensions (3).
- Urban public spaces provide a mode of practicing awareness everyday that renders inhabitants more attentive and highly sensitized to surroundings, and thus also to the environment. This enhanced condition for ethos emerges through repetition and everyday immersions of poethical intent (3).

Natureculture relation-making (ecological context of relevance)

- Embodied practice gives materiality has a voice (vibrant matter discourse) (1)
- By attributing a material body quality to the concept of a vibrant matter, the embodied methods can relate to the *natureculture* aspect of the research (1).
- Material properties reveal the ‘*world*’ around us, locate us and even evoke memories (1).
- Via the bodily encounter, the unnoticeable is revealed and noticed, and potential for inciting *natureculture* relation (1).
- By staging many bodies as a movement and behaviour, mimicking swarm-behaviour, is a mode of relational research into human and nonhumans – a staging of naturecultures (4).
- Butoh can be a dynamic immersion by using a biological-metaphor (1, 2, 3, 4).

Input for architectural and urban-making practice

- Architects must place themselves into all roles for an understanding of spatiality (1). (*see also 'shifting of roles' in category 3: Corporeal to space interaction/dialogue on the list*)
- Bodily sensitivity and expression can foster new expressions of architectural representation in the designing process (3).
- For a well weaved collaboration between artist(s) and researcher(s), both collaborators need to let down their guards and really step on each other’s professional toes to essentially feel uncomfortable, but proceed with respect (4).
- In collaborative work, there is a negotiation between the different approaches, the wordless communication and spatial composition that the dancer’s bring, and the research brought in on swarming behaviours to choreograph from. This intention for symbiotic collaboration necessitates first and foremost a desire to collaborate and to learn (4).
- Immersing audience as performers has benefits for collaborative research practices (4).
- Digital mapping must be supported through some form of interaction with the participant who is mapping, preferable in the form of a collectively staged events on site, through parallel dialogues and further reflective interviews (other).
- Instantaneous mapping situations by non-experts require contact from the researcher and provide an important form of agency to the mapper (other).
- Mapping is observational, whereas cartography is more value laden and opens up to be used as a creative instrument. In this sense, cartography can become an embodied act. You see a map and there is a body drawing it, but there are hardly any maps being generated in this project beside fictional ones (other).

Knowledge generation requirements

- Active modelling of scientific concepts is an important embodied pedagogy that allows students to take in the information into a new creative mode of knowledge generation (2).
- By using modelling as a method for ficto-criticism and enactment, boundaries are blurred between human and nonhumans that generate new formations and formulations for agency through the artistic practices (2).
- Modelling is the first step in embodied practice towards spatial-thinking that can be deepened by putting it into a second use, such as a performance (2).
- Imagination and fiction can evoke empowering pedagogical methods for enabling another understanding of ecological impressions (2).
- Artistic methods that are within modes of feminist spatial practice must remain fluid and open in order to allow for *becoming* and *in-between* potential (2).
- In the embodied methodologies, the practice builds theory, and the bodily engagement generates insights and knowledge from the inside and situated experience whereas theory only supplements, defines processes and techniques, and forms or formats the exercises (3).
- The digital mapping device required a site to be experienced through activated movement simultaneously. Only then did the site in question become a negotiating surface between the subject and his/her relationship with the environment (other).
- The process, rather than collected data, is the focal point in such explorations (all).

Intermission

'Dear Deer' - a home (be)coming

November 13, 2017

Dear Deer,

This is a short quick letter as I am coming home soon and write to you this time from the dock on the Departure Harbour. I managed to hand the letter to the dock-keeper, just as our ship is sailing. Will you be there on the other side to meet me?

However, it feels less like a departure and more like a beginning in all I have encountered. I went to visit Giacometti's tree - the boys: Estragon, Vladimir and Pozzo are gone. Godot never arrived...

ME: well? Shall we go too? ... [pause]

US: yes. Let's go [gesture towards the future]

[this time we move and continue on the journey]

We will meet soon.

As always, yours sincerely,

Anna Maria Orrù

2. Discussing findings

From the summary of my experience, participant's feedback and observing the interventions (section 1), the body emerged as a valid membrane and interface for critical practice. All encounters explored ways to deepen environmental commitments with urban space, primarily shaped and strengthened through corporeal and sensorial behaviour – essentially through visceral means by placing participants in movement. I positioned the research questions through different methodological approaches: digital interface (smart-phone app), bodily interface in performance (Butoh, Body Weather, swarm-behaviour), in making fictional space (metaphor, imaginations and atmospheres), and in movement together as a collective through the gardening sites in the interventions Safari.

Phase 1

The first phase of the interventions brought findings input for architectural and urban-making practice and, knowledge generation requirements.¹ It disentangled the complexity of food systems and found ways to engage the public by providing a bodily experience and immersion – both through digital and bodily cartography. The digital cartography manifested a better record of gardens that exist in Stockholm, as well as the opportunity to identify places for new potential sites. The digital cartographical interface in the research process helped to bring the collective subject to the foreground in exploring collective mapping processes. To lecture citizens on environmental behaviour is not enough. The Gröna Linjen was an attempt to explore diverse and creative methods of involving citizens in a playful bodily gesture of participation. This active playful pedagogic intervention behaved as a catalyst to spark curiosity, contact, dialogue, learning and eventually, a network of commitment. The Gröna Linjen interventions got planning experts alongside the gardening network groups. What was odd was that the various groups didn't know each other, and the weaving of skill, expertise and knowledge could not have been shared. By conducting an introduction via the green safari, these groups finally met. It was an invitation to interrogate what we can grow and eat in the urban realm, while also encouraging a certain intimacy to emerge with the urban landscape and a re-evaluation of its seasonal rhythms. Another way to look at agency in phase 1 was through the lens of engagement and narrative. Gröna Linjen provided a narrative for adventure, whereas Instant cartography provided a narrative for the underlining lives present in the mapping lines.

Phase 2

The findings from phase 2 bring to the front important embodied methodologies that came out of the encounters, which fall into all six categories from the distilled list.

One important finding is that the body can be a crucial media in building up a perceptual knowledge and awareness of other senses in order to cultivate a new form of urban attention and

¹ For an extended findings description for phase 1, please refer to the licentiate thesis (Orrù 2016).

imagination (encounters 1, 2 and 3). In terms of new modes for urban-making, this finding could be seen as a critical finding. From the participant's feedback, my experience, and observing the interventions, show that bodily awareness and sensual experience can play an important role in building formations of spatiality and in creating better-informed forms of 'living' environments. The feedback from encounter 3 was particularly incisive. For understanding spatiality, architects (involved in urban-making) must be able to create and understand bodily experiences at different scales, senses, temperatures and mindsets because these experiences play such a significant role in the decisions and feelings that people (individually and collectively) take from space and in the way that nature is experienced in urban spaces. For this reason, it has been important to stage encounters both on an individual and collective capacity because it points to the complex relationality that is a key in urban-making. Therefore, it supersedes a research dedicated only to the isolated individual sense. Encounter 4 specifically brought in the concept of swarming to highlight collective complexity and potential, however encounter 1 through 3 had already hinted to an individual body in a role with other bodies, naturecultures.

The embodied methodologies coming through with most potential were the ones that enabled a relational and reflective experience of materiality. Whether through heightened senses, mimicry, imagination, these exercises could start to enact Bennett's writing into thing-power materialism. The explorations brought the relational in as a reoccurring finding from a variation of angles; relation to space (1), relation to knowledge (2), relation to atmosphere (3) and to other bodies (4). Of course, each of these parameters was present in each encounter, such as space, but they were particularly coming through stronger in this configuration. To understand this kinship between humans and thinghood, encounter 4 investigated the dynamic capacity to collectively behave via way of using movement. The exercises turned up the volume and sensitised participants not only to the space and their colleagues, but also to nonhuman bodies such as plastic waste, stone sculptures, dead leaves, and even memories of biking.

Important for the practice was the way in which time was experienced or modelled with in terms of space. For example, in a movement of 1cm per second, the participants were drawn into a slowing down. At such a slow pace, time was no longer linear as it became something which occurred in between. With 'ma' time, time is pregnant with potential in this in-betweeness. The intent of the slowness was to speed up awareness. The awareness is seen as the potential in this instance as it allowed for a vulnerability and relationality that became an aspect of revaluing the space. Likewise, the metaphor usage was important to add with the embodied work as it allowed an atmosphere of spatial practice, not just a subjective method of understanding space. Also, the mimicry became a form of corporeal empathy and care in some instances (encounter 3). In this encounter, the body practices were drawn into forms of atmosphere staging through thinking in weather and clouds. Each allowed to reveal the unknown in the known, making Butoh a dynamic form of imagination that could be used in design strategies such as imagineering, wherein the collective imaginations are used for environmental thinking. All forms brought on a practice of place attachment (chapter 2). To draw some summary, non-visceral approaches can create

dull, alienating static spaces and processes. The embodied methods foster new expressions of architectural representation in the design process and should be included in the pedagogics of architecture. The performance in and of space through these imaginings brings up specific tensions that could be used for understanding the relationality that a space conjures up.

I would also like to briefly reflect on the importance of pairing the embodied work with knowledge practices such as modelling or enacting scientific constructs. In all encounters, the pairing with a theory played a significant role. Encounter 1 used biomimicry in the Butoh practice and Frauke's performance. Encounter 2 used Fukuoka's natural farming. Encounter 3 used weather and clouds. Encounter 4 used swarming. I cannot stress enough how important and necessary these scientific *performing-making-composing* exercises were in terms of not only understanding these knowledges, but also in situating the embodied practice in a critical fiction related to the environment. It produced the situated knowledges which Haraway alludes to from an artistic research perspective. Reading and knowing of is one form of awareness, but when this awareness is turned into an embodied experience, situated within a critical discourse and then re-reflected through theory, it produces an entirely different contemplation that enhances profound outcomes. Outcomes that steer towards the making of deep commitments to environmental urban behaviour which necessitates the body to be fully included and present.

Film reflections on performativity

'Performance primarily constitutes a corporeal act – manifested against spatial surfaces, backdrops and screens – whose enduring residue is instilled into a moving-image form' (Barber 2014, p. 8) .

Performance is a corporeal act but simultaneously it is a spatial act. Film allows for a sense of intimacy with the corporeal work that was difficult to do solely with interviews, photos, the workshops and/or events. The intersection between film and a body in movement allows the reflection time needed to sweep through the interventions one more time. Each film went through a sequence of alteration; from documentation, to thought process, to finding theory that could entangle with the moving body on screen. Furthermore, each film reworking further explores the relations presented through the interventions. And, though not each intervention was a performance, besides *Organoleptic Interfaces* and the final performance in *Body Weather*, the films allowed to make each encounter into a performative gesture, giving them a performativity and thickness.

Reflecting on the films, I have become aware of an interesting question: what happens to the spaces' existence once it has been performed and captured on film? The space goes through an alteration in terms of the memories it may evoke for participants, or film-watching audience curious about the sites in which the Butoh was practiced. In light of this reflection, the films themselves are also a form of urban-making that not only documents acts of spatiality but also connects to a collective memory and place-making.

Space came to the fore through the films. However, the main element of focus throughout the interventions has been the body with the aim to explore the relation to space during these corporeal interventions. The films allow to hone in closer to the body's intimate relation with space as it is captured on film. Barber states that 'Whenever performance enters film's arena, it may be delicately accented and sensorially enhanced by that manoeuvre, its corporeal gestures revived' (Barber 2014, p. 11). Likewise, the films become a suture between the practice, theory and research. The film becomes a material to think with in making reflections. Furthermore, once the moving and practicing body is captured in film it will be handled with care. In terms of the potential in this transition, film can transform, reinvent and re-imagine. I wanted to gingerly approach this knitting together of the different events into a single intervention. Barber agrees, he writes 'the bodies held in performance and in film form profoundly different entities. Performance's corporeality is comprehensively reconfigured by film, potentially to the extent of effacing performance's original intentions and its distinctive, defining gestures' (Barber, p. 23). The gap between film and moving body (performance) is a space which allows for the ecological preoccupations and explorations to be disclosed. For instance, the under-workings of Body Weathering at first were a junction between the Body Weather practice and clouds, but through the theory readings and return to film-making allowed Ingold's notion of stitching together ground and sky to become a part of the intent. Isolated, each part of the research work would not be able to do this unless it was seen all together from a distance and tinkered with.

Using space in an unintended manner may stimulate new experiences and insights. In such instances, the perception of the space, the memories had, the associations conjured up, and the imagination used in the body work overlap to produce a new existence of the space. Here, the space becomes a blend of what is real and what was imagined. Fischer-Lichte (2008, p. 114) notes that the performativity can identify the space as a 'space between' and creates an atmospheric space which shapes and forms the space in return. It should be noted that this in-betweenness is an important characteristic both in the interventions and in feminist spatial practice, but also in the concept of '*ma*'. It is affective-making. This affect is an outcome from the deeper practice and commitment and is also the infrastructure in which to research better living environments in urban-making. Atmosphere, spatiality and the senses are intricately tied together. Atmosphere is a physical exploration, it can be evoked through the materiality of space which emerges during the bodily contact with space.

The space changes after performance and corporeal intervention, and it is a naïve exploration in itself. The playfulness inherent in the spatial exercises did not prepare the participants for what they would have become aware of, not for the reflections they would have unearthed through the practice. For some participants, they were unaware of how spatial materialities could be experienced differently, or that their senses could be forms of inquiry in their architectural research. But overall, the mundane everyday space of the school atrium, the wooded hillside, the Student Union lobby area and other spaces in the exercises came to life through the practice. Spaces change after the practice and/or performance, and this brings up the point that the

relation to the space also changes. This is precisely the two-way dialogue between body and space that I have been alluding to (chapter 3).

It is clear that the spatiality of the space is revealed through the bodily practice. Spaces that may be overlooked, become a central core to the practice though they have a background quality in the intervention's moment. When the film is put together, I see the spaces as an important aspect of the practice as a viewer. The explorations were concerned with the spatiality, and how the body can investigate them, rather than particular spaces. To give it another name than performative spaces, I would call them reflective spaces or spaces of critical spatial practice for the purpose of training the embodied methodology to expose the invisible. In this body to space to time relation, a type of rebellion exists in the margins of normative everyday practice.

The Butoh has allowed to dissect this and bring the protest of spatial practice to the surface because of its unorthodox methods. I would argue that this is the core of the artistic critical spatial practice here, a rebellion to traditional architectural forms of investigation and a view on the importance of bringing the body back into architectural modes of practice. Whether this sits under the guise of architectural or environmental performance, who is to say, but the role it can play belongs to Rendell's motive of critical spatial practice and today's feminist spatial practices. This spatiality is emergent, it emerges through the performance and embodied corporeal work. In these instances space becomes urgent, and if the practices are curated in spaces of contestation such as urban farm sites, they can enable transformative gestures in practice and urban experience.

3. Drawing conclusions

The distilled list of practices can also be seen as a methodology for a range of approaches into embodied, relational and situated poethics of urban-making with implications for new ecological commitments to naturecultures. The feminist theoretical neighbourhoods unveiled an approach to environmental concerns from the perspective of involving all bodies – human, nonhuman and naturecultures – and putting research into a construct with embodied practice. As one of the contexts of relevance, environmental challenges call for an awareness, reflection and situated knowledge-practice that summons action and resistance to global corporate capitalism (chapter 2). The suggested relevant methodologies and cartographies between the corporeal practice and theoretical settings allowed for a new kind of situated commitment to ecological awareness outlined in the research aims as the contextual threshold. What became evident was that the practices supported and expanded additional modes of place attachment and environmental identity-making which is an important ingredient for encouraging deep commitments to the environment (chapter 2). Each encounter endeavour was political, poetic and ethical, contributing to a mode for poethical urban-making. Each had required a critical and activated approach to naturecultures, unlike the Anthropocene concept, through the embodied approaches to relationality and performativity.

At times, the interventions have been uncomfortable processes with nothing to grip onto for concrete results. However, this is precisely the intention of experimenting through artistic research, for the processes must emerge intuitively through the logics of artistic unfolding and exploration. Artistic research is a critical component in urban-making here as it helped to deepen the contextual insights through the embodied work. In staging the interventions, it was critical to let go of them in order to see what would come back from the corporeal contact with space. The encounters have been 'other ways of sensing space,' a fleshy, corporeal and sensuous dimension of urban-making, spatiality and architectural-thinking generated through the corporeal practices of Butoh, Body Weather and swarming-behaviour as modes of co-becoming through worlding, atmosphere-making through clouds and weather, and collective practices through swarming assemblages. These are all in essence fluid and open-ended world-forming practices because each of them rests in a fictive construct of metaphor, mimicry and imagination. The body work alone gave opportunity for new forms of spatial conduct and discovery. The body choreography explored spatiality through the following parameters; experience of scale and materiality, material behaviour, becoming aware, orientation of the body, size and scale of materiality, understanding weight, memory and presence of different materials and the fleshiness of the space.

A critical question remaining is how were the poethics of relation cultivated and generated? On one hand, the research and interventions provided conditions for relation-making and communication about what assemblages were needed in order to determine how spaces in cities could be used. On the other hand, 'activating' body(ies) to generate interest for such practices to initiate had been confronted. In order to understand what a body immersed in this act with nature reflects upon, complex matter-flow includes also human bodies. Similar to Bennett's 'thing power' approach, the corporeal work has helped in exploring ways in which to develop greater recognition of natureculture assemblages, agential strengths of human and nonhuman matter, and an awareness of the relations that transpire between. Such recognitions can help in developing a more intelligent approach to architectural interventions as a part of this ecology.

The research aims had been a twofold manifestation into urban-making and naturecultures within these situated, ecological, and poethical constructs. The encounters presented alternate ways to deepen relational involvement using the body in architectural thinking and spatiality. The variety of methodological choreographies suggested modes for enhancing this relationality and reorientated knowledge practices. Performance, whether staged or enacted through body practice, has potential to explore the intricacies of this relation and interaction: the function, meaning, conditions and sequence on individual, inter-subjective, shared and collective levels of discovery and enactment. The Butoh, Body Weather and swarming-behaviour practices have allowed for a vibrant materiality to surface into understanding the emerging naturecultures in a space through the material surfaces experiences and metaphorical critical fictive constructs. To explore naturecultures, the embodied methodology and practice needed to occur in several configurations: individual reflective body work, shared activities with other bodies, and collective arrangements of choreographed body work that are responsive to other bodies in the

space responding to the three thresholds that were formulated in chapter 1 (the embodied, the relational and the contextual).

Now arriving from a long journey, the diverse immersions of bodily interventions to examine body/curiosity, fiction/performance, atmosphere/imagination and metaphor/swarming provided a spectrum of embodied methodologies to tackle the complexity of urban challenges. The transdisciplinary and artistic processes in this thesis have reorientated the role and process of using theory into a mode of support for the embodied practice through developing a theoretical-methodological cartography and choreography, and in turn, have indicated new directions for relational action and urban-making.

Throughout the chapters, I have relied on theory from Haraway, Bennett, Le Guin, Whatmore, Haila and others to bring nature's presence into the discourse in terms of its vulnerability and complexity. With the reflective choreography, there was another form of nature's reflection which appeared in encounter 4, biomimesis, but has become a concluding ingredient to think about becoming-with strategies with naturecultures in urban-making. Biomimesis brings up a collaborative approach between relational practice, embodied methods and natureculture-thinking that expands on urban-making and consequently also on the field of biomimicry. In this construct, biomimicry moves from an abstract practice of nature's inspiration to a practice for relational space making with naturecultures in mind, not just inspired by.

Body nature for practice, research and education

To encourage a poethical urban-making, the embodied methodologies give a trained sensitivity and perception to the vibrant materiality of a situated space. As a maker/designer of spaces and cities, I cannot imagine this to be overlooked, so it was my intention in this thesis to explore ways in which such conditions could come to the surface to better understand what happens when the body is fully engaged (such as while gardening). As the research views the *commons* as an encounter that can occur in any space and at any time, however, the body(ies) must be present. In the four encounters, the various sets of corporeal choreography expressed in the interventions (Butoh, Body Weather, swarming) are thus also forms of spatial agency and *commoning* methodologies. Therefore, the role of the urban-making architect is to provide forms of method and space for *encountering*, providing lived experiences that step away from capitalist forms of spending time in the city and shift to occurrences that give a poethic agency. This encounter can be a body placed into reflective configurations with a naturecultures in mind.

The role of teaching and practicing architecture has become something different for me in the course of the research. Petrescu has written about this role as one in which the agency of making the space is transferred gradually to the participants which eventually become the most involved and agents of the space. She states that, 'our role as architects has been to develop, sometimes initiate, and then support and prop up the networks that emerge around these different activities, spatial systems, processes and effects that allow both personal futures and collective futures' (Petrescu 2017, p. 107). This form of discipline changes into a relational and

co-operative practice rather than a neoliberal practice which seeks material value for profit. She writes that relational practice 'creates conditions for a liberating experience that changes both the space and the subjects' (ibid). The architect (expert) must endeavour to place herself/himself/themselves into all roles in order to get a profound understanding of spatiality; researcher, observer, performer, user, producer etc. The potential for the transformation of the practice is then in a democratization of agency as a situated practice. The encounters provide a mode of relational practice methodologies that incite potential and conditions for another understanding of architecture, of the practice itself, of the research and of the education processes. These immersions have formed ways in which the relation and contact to space shifts, and the agency in this case is not only transferred to the participants, but also to their bodies. With this in mind, architectural practice and urban-making must include the body more actively in the conceptual, development and design stages. The bodily sensitivity and expression can foster new expressions of architectural representation in the design process. That the body is able to participate in this effort with a poethic intent, and that there are methodologies that arise capable for this purpose, has been a discovery. Such methods should therefore play a critical role in urban-making and very much so in exploring the capacity of these methodologies in environmental challenges.

The role of artistic politics

I return to the question of the politics in the poethics; what role and responsibilities do institutions play in the constructed assemblages between body, space and edible matter? Do planning bodies need to be included in the staged interventions? Though I have not collaborated with institutions on an ongoing basis, the thesis in itself is political as a tacit politics underlines many of its proposed concepts and interventions. The concept of using the body to perform an architecture is political. The move to scrutinize language used in the ecological field, avoiding words such as the 's' word, is political. Questioning a gardened green smart planet is political. And, also, the meticulous act of using artistic research in a technological university is political and a mode of rebellious research to push the knowledge generation further.² My aim has been to concentrate on developing embodied methodologies, unfolding them in poetic gestures that deepen the contextual insights to reveal the nature politics of natureculture relations to urban space, and hence connect body(ies) to ecological and political complexities of environmental challenges. Furthermore, I view my teaching as a political contribution, as well as events such as the AHA festival as means to bridge between departments at the universities, art and science, and also to invite the public into academic discourse and research. Therefore, the artistic research was a vital component that not only emerged in the embodied methodologies and practices, but was followed through in the theoretical supports (a cartographed choreography of mostly feminist

2 The aim to work with policy and planners had a brief and strong presence in phase 1 of the research when they were included in the interventions staged in Stockholm and Malmö. Earlier interventions like the Safari, Gröna Linjen and Urban CoMapper were very active in staging platforms and events where both citizens and planners participated. Similar to swarming, planning bodies are not the only components necessary to bring about change in behaviour, though they are a critical node in the assemblage, the relation to planners is important to maintain and create openings for forms of encounter.

theory), till the final stages of reflection and findings where I used film-making as a way to sieve through the research. The artistic lay not only in practice, but throughout the entire research process, including the writing (voyage metaphor, correspondence with the deer), the teaching (workshops), and disseminating (self started Vegetable Lamb Press, performance lectures). I look forward to the continuing dissemination that will springboard from the PhD from this in-between place of spatial practice.

From a foundation of many years in the architectural profession working from an ecological perspective, I seek to find ways of exploring the city, architecture, urban condition and our environment in modes that are more justifiable than what is presently mainstream or available in architectural thought. In putting forward alternate methodologies such as choreography and biomimesis rooted in artistic practice can realign the dominant relationship that architecture has to the external world. In order to unpack the relation to environmental urbanism, it must begin with the body(ies) because after all, body and the environment are mutually formed. Through the practices, things have been made visible that are normally obscure or marginalised, such as the importance of orientation, the fictions to live by, the difference of individual to collective body and the assemblages they make, and the power of imagination to reveal the vibrant materiality of urban space. The in-betweenness of these relations is the place where relations are formulated and reorientated; to space and to practice.

I feel comfortable in this space – in this in-between – because this is where I come from and grew up in. I am in between two cultures - Italian and Polish - but brought up in neither country. I live in between two countries, each has given me a place to continue the work I love, and live the life I love. And, I have been brought up between two hemispheres; global North and South, a childhood in South Africa and an adulthood in various countries in the Northern Hemisphere. From this in-between, I feel comfortable questioning the binaries found in the research as I have also reached an in-between in my discipline. Bringing artistic research into the realm of architecture places me partly both on the inside and the outside of the discipline, and there is a potential from this in-between position to have a sense and agency of independence and autonomy which enables me to look from the outside in (and inside out), from a critical distance and from different perspectives, still in kinship with colleagues, practice and naturecultures.

4. Further research

‘How, then, can we understand the idea of embodied utopias? What would utopias that consider embodiment be like? And how might they be relevant to the concerns of architecture? [...] Rather, the radical role of the architect is best developed in architectural exploration and invention, in the recognition of the ongoing need for exploration and invention, in recognition of the roles of architecture and knowledge as experimental practices [...] Architecture, along with life itself, moves alongside of – is the ongoing process of negotiating – habitable spaces’ (Grosz 2001, p. 148).

Arriving in feminist approaches to environmentalism has allowed for more fluid approaches that could be used in further exploration in urban-making with biomimicry, speculative fabulations, choreography etc. Experiencing space through the various encounters has revealed the impact that corporeal encounters have on spatiality. However, there are three areas that need further research:

- Strengthening artistic research further in urban-making
- Incorporating embodied and relational knowledge-generation and practices in architecture research, practice and pedagogy, its relation in feminist practices. This includes revitalizing the senses in urban-making through embodied practice
- Resolving the tension in embodied curriculum in architecture and finding modes to include and disseminate it

Strengthening artistic research

Artistic research needs further development in urban-making. The artistic research produced research tensions that came up between phase 1 and phase 2 of my thesis, and require further inquiry between instrumental technological approaches, and, the embodied knowledge practices in the architectural curriculum. I have hinted at this tension but it needs further understanding and development.

Incorporating embodied and relational practices and revitalizing the senses

The collective in urban-making requires further research. Research that steps beyond approaches that neglect an empathetic and poethic use of the body(ies) such as in the case of a technocratically-driven urbanism. This collective research requires more modes of urban-making that keep highlighting natureculture relationships. This approach is a much more complex relationality than the individual body moving through a space.

In this endeavour, the sensorial also needs further research into the collective sensing body, especially the revitalisation of the senses in urban-making which are completely absent from planning, to my knowledge. Because three encounters (encounters 1-3) were dedicated to the discovery of Butoh in embodied practice, at times the research into the individual sensing body seemed to dominate. However, all along, and leading into encounter 4, the complexity of the many bodies was present. They do however require extended research given the findings from encounters 1-3. Along these lines, further research is also needed into the enhancement of the complex relationality that emerged from encounter 4, and an agenda setting that needs development due to its relevance for future environmental methodologies in urban-making to include naturecultures.

Embodied contact and relation cause a form of attachment which is what allows people to empathize, care, feel and to think about the environment. Though I have focused on arbitrary

sites in the Butoh practice, future research requires a further probe into what diverse forms of embodied practice can do for particular spatialities and the challenges they face. Can spatiality in these instances be transformed through the embodied practice?

Inclusion and dissemination of the embodied curriculum in architecture

It would also be interesting to see a comprehensive comparative study of embodied work that has been produced in the past 5 years, especially from the Swedish Research School in Architecture (ResArc) (2011-2017), in which my research is included, that produced several diverse PhD's on the topic (*Lawaczek Körner 2016, Altés Arlandis 2016, Nilsson 2010, etc*). Hence, the question would be how to develop a curriculum for practice, research and education given all these findings and viewpoints, setting them into a construct for a renewed environmental and feminist practice? How can such a curriculum be developed investigating further embodied methods, and what could a curriculum of this kind be? The endeavour is transdisciplinary and requires a coming together of several fields with similar intentions, a track that could be interesting for research institutes such as Mistra Urban Futures.

One of the research units I have collaborated with during the PhD has been the Living Archives research group at Malmö University. Our collaboration occurred on three occasions: A lecture of my phd research work (2014) at their Greenhouse Artist Talks, an invitation for the group to re-enact the AHA festival archives (2015) at the Festival, and a staging of a workshop at the symposium (2016) called Instant Cartography (see catalogue). I have been asked by the group to contribute to their upcoming application for the next phase of the research group preliminarily under the heading 'live theory.' The hope is to continue the research around the thematic of performativity, ecologies of affect, post-feminism, artistic research and memory practices; essentially a post-human approach into urban-making which also is lacking. To this extent, Grosz (2001, p. 164) writes that

'Transformations in concepts of space are fundamentally linked to transformations in the concept of time' and that 'a posthumanist understanding of temporality and identity, an understanding that is bound up with seeing politics, movement, change, as well as space and time, in terms of the transformation and realignment of the relations between identities and elements rather than in terms of the identities, intentions, or interiorities of the wills of individuals or groups. (Grosz 2001, p. 92).

This thinking and exploration belong in the realm of nomadic thought and practice (Braidotti) with a multiplicity of approaches that certainly need to be brought into artistic research practice. It is a vulnerable position and requires further development within urban-making. This would involve research in terms of public spaces and reorientating the public realm into a dynamic relationality activated to whatever challenges might need study (e.g. ecological such as waste, water, or economic such as over-consumption). Such research will have further implications for understanding the role of an agential and relational public sphere which takes

agency alongside policy and planning, and redistributes this agency from expert to the public as well.

As I tie up this journey, I recall that at the end of my licentiate, my next door neighbour had started her own kitchen garden patch. It had taken her a month of observation, curious questions, and visits to our garden to arrive at this junction of action. This year, she has extended her garden three-fold. It still gives courage and inspiration that there is the potential to spread behaviour merely through presence and the relation made over a short period of time. Just imagine the swarming effect of such instances.

Thank you for joining me on this journey.

These encounters remind us of what we already know, which we should claim in ourselves.

I have to leave for now, back to gardening

My tomatoes need plucking...

∞

PART FOUR

SUPPORT

additions

references | publications

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Publications

papers | essay

Paper 1 Orrù, A.M., (2015). 'Extracting Urban Food Potential: design-based methods for digital and bodily cartography', *Future of Food: Journal on Food, Agriculture and Society*, 3(1 Special Issue: Finding Spaces for Productive Cities), pp.48–62. Available at: <http://fofj.org/index.php/journal/article/view/147>.

Paper 2 (Abstract only) Orrù, A.M., (2015). 'Time for an Urban (Re) evolution - Negotiating Body, Space and Food', in *The 1st PARSE Biennial Research Conference on Time*. Gothenburg, Sweden.
Full paper available in licentiate thesis (Orrù 2016)

Paper 3 (Abstract only) Orrù, A.M., (2017). 'Corporeal Encounters with Farmscapes: curating an embodied methodology for ecological urban-making', in *8th AESOP Sustainable Food Planning Conference*. Coventry, UK. (paper accompanied with film)
Full paper available in AESOP Sustainable Food Planning Conference 2017 proceedings (contact Author)

Paper 4 (Abstract only) Orrù, A.M., (2017). 'Body Weathering-nebular intentions', in *Art of Research Conference*. Helsinki, Finland. (paper accompanied with film)
Full paper available in Art of Research 2017 proceedings (contact Author)

Essay 1 Orrù, A.M., (2016). 'Matkultur Framtidens Metabolism', in Spridd, ed. *Future People's Palace*. Stockholm, Sweden, pp. 123–154. Chapter in a Compilation.
For essay in translated into English see licentiate thesis (Orrù 2016)

Digest Series (not included) Orrù, A.M., Vegetable Lamb Press
Foodprints (not included) Orrù, A.M., Innovativ Kultur

Introduction to publications

The PhD has produced four papers, one essay a series of seven publications called the Digest Series from my self-initiated press. In addition, an important publication leading to the phd research is Foodprints. The Foodprints publication may be accessed and downloaded online (Orrù 2012). Paper 1 supports the first phase of interventions, and papers 2, 3 and 4 the second phase.

Since the beginning of the thesis, movement is a continual theme. It is discussed because it is the most recognisable way to make an enquiry into embodiment. The paper in the first phase aimed to understand the connect between the individual and collective experience of an urban food producing sites and how this contact brings about transformed behaviour in regards to food and seasonal attitudes. They have a common focus on urban foodscapes and behaviour.

Paper 1 – Extracting Urban Food Potential: design-based methods for digital and bodily cartography - is viewed as an agenda setting paper and a report of the initial networks and staging of interventions in Stockholm. It laid out the ground for an understanding what an embodied methodology might entail through showcasing the Gröna linjen, its two safaris and the digital interface Urban CoMapper. It outlined comparative methodology of using digital and bodily interfaces, building up for a continuation for further embodied methodology in its conclusion. The paper also opened up for the lack of further corporeal methodology in urban making. The first phase of the thesis included a series of interventions within the realm of the digital and bodily in the subject area of critical cartography. Briefly, critical cartography is a form of alternate mapping that incorporates theory and practice as foundational to building ‘new societies.’ This field of cartography investigates new mapping capabilities that hand over agency, develop open-sourced and pervasive tools (Crampton 2006). Gradually, the research morphed into corporeal choreography. The intention had been to explore the sensorial interfaces in the world and how they can translate into ethical eco-logical ‘becomings.’ The scale of the interventions had small lifespans but what could they leave behind?

Paper 2 – Time for an Urban (Re)evolution – Negotiating Body, Space and Food – is the start of publications to look at Butoh as an experimental and explorative methodology. It examined the bodily interface through techniques such as imagineering and Butoh dance, creating fictions and performance, through the interventions; Paperscapes and the Organoleptic Interface Butoh performance. This paper also examines Butoh in its relation and tie to the spatio-temporal Japanese concept of ‘ma.’ Briefly, ‘ma’ is a Japanese concept of time, it is an interval or gap where potential exists (Big in Japan Contributor 2011).

The last Papers 3 – Corporeal Encounters with Farmscapes: curating an embodied methodology for ecological urban-making – and Paper 4 – Body Weathering: nebular intentions – both reflect work done in phase 2. Both papers were also accompanied by a film regarding the research work. Paper 3 was a return to the AESOP team with a further examination of the body as a form of encounter in foodscapes with the intent towards ecological urban-making. Paper 1

for the same team alluded to this continuing research, and I wanted to reintroduce the embodied theme again and further. As a result, I have also been invited at the AESOP conference to partake on a panel discussing the role of artistic research in sustainable urban planning. The conference will also be exhibiting and screening the film that accompanies paper 3. Paper 4 is a return to the artistic context but within a more suited context that specifically highlight artistic research. On this occasion, I showcased one film from encounter 3 – Body Weathering as part of their exhibition, and prepared a performance with Butoh dancer Frauke for the conference program to accompany paper 4.

A particular aim with papers 1 and 3 have been to introduce artistic research and methods into normative forms of urban planning. To my delight, the AESOP team have been very supportive of this move and in the first conference in 2014, the conference jury awarded paper 1 with the ‘best scientific paper’ award, concluding in a publication of the paper in the special issue on the ‘Future of Food’ in the Journal on Food, Agriculture and Society. This is critical, not because of the award, but more-so that modes of artistic research are being accepted in journals and conferences, and that transdisciplinarity is being embraced. Finally, the Digest Series are a continuing effort in the artistic research. The series is produced as part of my self-initiated press called Vegetable Lamb Press since mid 2015 with an ongoing compendium entitled Digest, a metaphorical reference to the digestion of research. To date, the series features seven publications showcasing ‘actions’ and experiments in artistic research from the interventions during the thesis. The aim for starting the small press is to release research freely and transparently so that another discourse can begin outside of academic publication and experimentally. It is intended to share my work with the public realm to introduce them to the notion of artistic research as well (Available at: www.vegetablelambpress.com). The series contains the following: Digest 01: Green Line, Digest 02: Urban CoMapper, Digest 03: Instant Cartography, Digest 04: Transit: A Swarm in Five Acts, Digest 05: Organoleptic Paper Interfaces, Digest 06: Butoh Meets Architecture, and Digest 07: Body Weathering. Each book is hand-made and bound, giving me a reflective moment to think about the text. The small booklets are research artefacts and a certain kind of performativity. They are another form of intervening with a collective audience, much like each encounter. Paper 1 had safari participants, 2 had an audience and students, 3 returns to the readers of the first paper and 4 releases the research to artistic peers. In the Digest though, the audience is anonymous and the physical contact is not as present, however the reflection is present and occurs in private reading. In an attempt to reach the audience though, I have participated in the ‘Friends with Books’ art book fair annually since the presses inception at the Hamburgerbahnhof Museum in Berlin, Germany. This opportunity has given me the potential to meet each reader who gets a book and have a small discussion around the research.



Extracting Urban Food Potential: design-based methods for digital and bodily cartography

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Abstract

Sweden's recent report on Urban Sustainable Development calls out a missing link between the urban design process and citizens. This paper investigates if engaging citizens as design agents by providing a platform for alternate participation can bridge this gap, through the transfer of spatial agency and new modes of critical cartography. To assess whether this is the case, the approaches are applied to Stockholm's urban agriculture movement in a staged intervention. The aim of the intervention was to engage citizens in locating existing and potential places for growing food and in gathering information from these sites to inform design in urban agriculture. The design-based methodologies incorporated digital and bodily interfaces for this cartography to take place. The Urban CoMapper, a smartphone digital app, captured real-time perspectives through crowd-sourced mapping. In the bodily cartography, participant's used their bodies to trace the site and reveal their sensorial perceptions. The data gathered from these approaches gave way to a mode of artistic research for exploring urban agriculture, along with inviting artists to be engaged in the dialogues. In sum, results showed that a combination of digital and bodily approaches was necessary for a critical cartography if we want to engage citizens holistically into the urban design process as spatial agents informing urban policy. Such methodologies formed a reflective interrogation and encouraged a new intimacy with nature, in this instance, one that can transform our urban conduct by questioning our eating habits: where we get our food from and how we eat it seasonally.

Introduction

Gröna linjen is a vibrant transdisciplinary urban platform formed to investigate alternate participation for citizens in the urban design process. This paper responds to several knowledge gaps highlighted in Sweden's report on urban sustainable development, and furthermore, on urban food discussions in the Netherlands. One gap in the report calls for more research into the urban design process where the citizen is viewed as a 'co-creator' in designing the city merely through their participation. Another gap links urban agriculture to well-being, and a third

beckons for new participatory and dialogue strategies. Furthermore, the discussion on food in the 2012 exhibition Foodprint in the Netherlands calls for a paradigm shift for individuals' conduct when it comes to food, and creative and artistic practices can play a vital role for this change (Stroom den Haag, 2012). The investigations take place in Stockholm, Sweden, where a growing desire to grow food has emerged and a number of productive foodscapes are appearing. A foodscape refers to an urban food environment devoted to food produc-

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tion, distribution and/or consumption, but in the context of this research it refers to urban food production. Urban Agriculture, a term more commonly used, seems too vast as some of these productive foodscapes are small in size, but nevertheless, immense in their community impact. Therefore, in response to the highlighted gaps, can the role of the citizen be strengthened and enacted through new practices in the urban design process? The research investigated methods to transfer spatial agency to the citizen as 'co-creator' and tested new modes for critical cartography. Gröna Linjen staged a safari intervention, an overland green expedition, for locating existing and potential places for growing food by orchestrating encounters with five foodscapes and the community surrounding them. Meanwhile, testing the methodologies for gathering data from these sites, that could be used to inform policy on urban agriculture was also done. The approaches gave way to a mode of artistic research in the study using design-based practices with digital and bodily interfaces for cartography, along with inviting artists to be engaged in the dialogues. The digital interface, the Urban CoMapper app, was a tool for hand-held devices that captured perspectives through crowd-sourced mapping in real-time.¹ The bodily interface used the participant's body to gather data from these green spaces, as an individual and in a group, via their sensorial perceptions of tracing the sites with their bodies. The methods encouraged an intimacy with nature and formed a reflective interrogation of our eating habits: where we get our food from and how we eat it seasonally. The challenge remains whether assigning spatial agency, via innovative methods for critical cartography, can develop an urban design approach that integrates citizens as agents and informs policy for urban agriculture.

Swedish Research in Sustainable Urban Development

To begin with, the motivation for these projects has been the 2011 Formas Report on Urban Sustainable Development, which identified several knowledge gaps in the relationship between citizen and city. The report maintains that 'there is an unquestionable link between built environment and living conditions. Therefore the urban space tends to be understood as something external by which people are affected, while it is forgotten that man, by

acting in and appropriating the built environment, is also its co-creator'. In essence, 'the place is created by the people using it in a reciprocal interplay with the place itself' (Swedish Research Council Formas, 2011: 36). This changes our view of experts as being the only ones creating the urban environment, and includes citizens as design agents in the urban design process. More research is needed into this 'co-creating' role and how citizens' effect could shape the urban environment towards sustainable means. This paper responds by examining methods for spatial agency and critical cartography as templates for further enforcing this role.

The Formas report (2011) goes further to highlight a gap in urban agriculture: 'another neglected research field concerns the link between people's wellbeing and urban growing, which is a big topic internationally but not in Sweden.' The aim of the research also accentuates this food-related lifestyle of urban farming and its influence on strengthening citizens' relationship to nature in the city through the act of growing food. The gaps mentioned above are interlinked and it can be assumed that citizens, as creators of productive foodscapes, become designers of the urban landscape. In sum: a transfer and democratization of spatial agency. But how do we incorporate these design concepts? The report identifies a need for 'new forms of user participation and civic dialogue at early stages' of the urban design process using alternate methodologies (Swedish Research Council Formas, 2011, 61). Further dialogue into urban agriculture is needed, and how to include it in the city. The approaches outlined in the paper specifically answer this call with the Gröna Linjen intervention which explores unique methodologies in critical cartography: the digital and bodily to allow both citizen and expert to seek alternative ways to record their contexts, perceptions, and how they engage with green spaces. Therefore, allocating a bridge for the exchange of ideas, information and dialogue towards a practice of 'co-creation' is important.

Spatial Agency in Foodscapes

Actively engaging citizens as design agents in the urban design process by providing a platform for alternate participation provided the base for a transmission of spatial agency. The citizen as 'co-creator'

¹ UniKassel & VDW, Germany - May 2015



becomes a spatial agent, which necessitates an alternative way of looking at how buildings and cities might be produced, through citizen rather than only expert involvement. The Gröna Linjen platform, created in January 2014 by 6 enthusiasts including the author of this paper, intended to identify Stockholm's gardening community and offer new forms of participation.² The network's title also has a recognizable geographic configuration as it is named after Stockholm's green subway line #17, coincidentally also the route where most urban farming initiatives are currently taking place in the city (Figure 1). The group is a vibrant transdisciplinary alliance between artists, architects, gardeners, performers, researchers, geographers, cooks and more, who highlight the barriers and opportunities of

urban agriculture provided by linking art, science, practice and research. The network gave opportunity to explore spatial agency as a citywide concept, tied together by the concept of growing food.

'Spatial agency is about a different understanding of the production and dissemination of knowledge. This entails opening it up to the architecture's outside, through acknowledging the contribution of non-experts and through disseminating it in an accessible manner' (Awan, Schneider, & Till, 2011, 63). The task of designing an urban space is handed over to citizens who wish to participate in the design development, cultivation and implementation of these foodscape sites. They are now agents for the space, which gives way to an alternate and

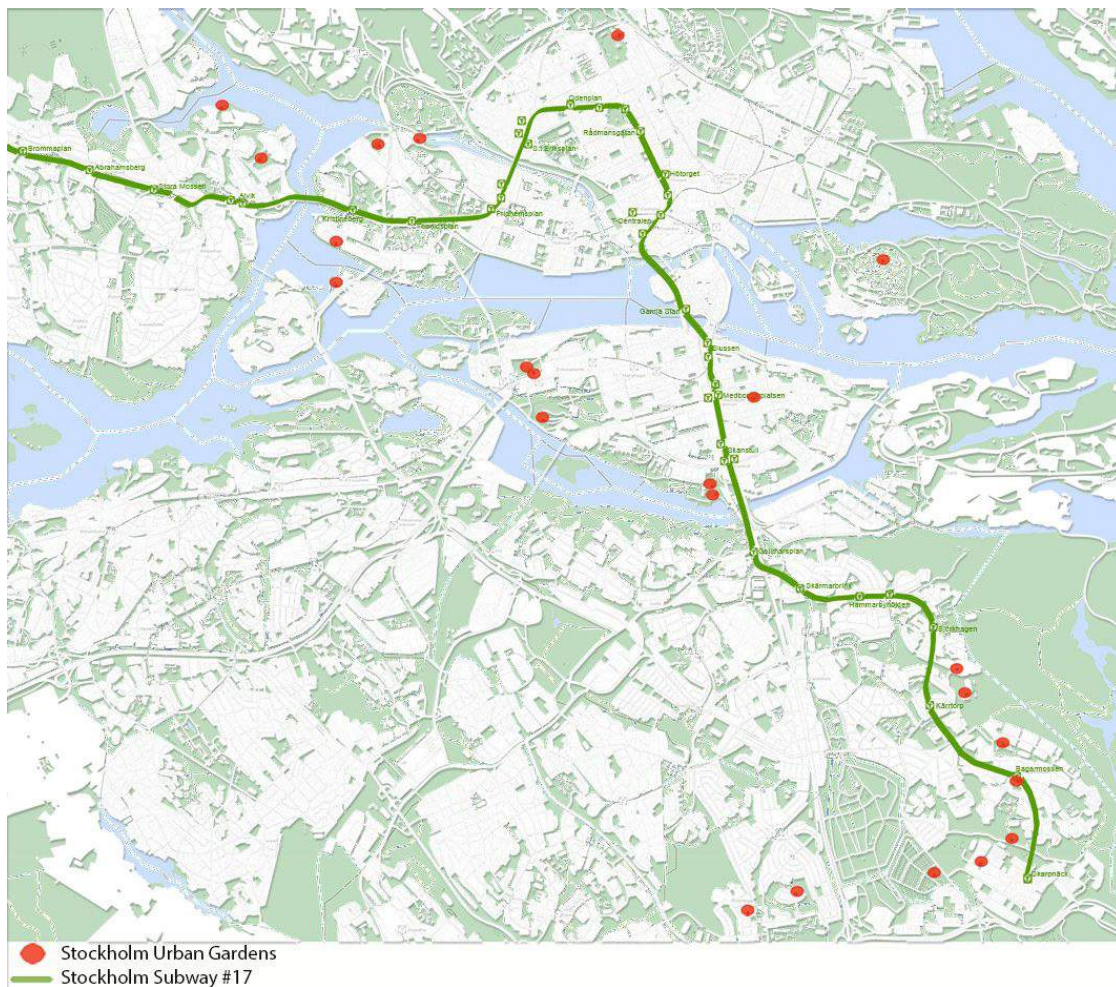


Figure 1: Map of existing gardens in Stockholm.
Data Credit: Initial data courtesy of Stadsodling Stockholm 2014
Graphics credit: Anna Maria Orru 2014



more activated mode of participation and creation.

“In spatial agency, their agency is effected both through actions and visions, but also through the resulting spatial solutions; and spatial agents have to be responsible for all aspects of their actions, from their initial relationship with others to enabling the production of physical relations and social structures. Spatial agency is here as much about modes of behaviour as it is about modes of making” (Awan et al., 2011, 32). Simultaneously, such modes of collective visioning can increase green areas in the city and promote biodiversity especially in underutilized urban spaces, for example, unused grass patches between housing complexes. In such areas, local involvement is a vital ingredient in the maintenance and setup of a productive foodscape as it requires vigilant care to keep them running, thus strengthening the bond between caretaker and their garden. The vulnerable nature of such food-productive spaces requires this spatial connection to have agency, as the ongoing-costs are usually not included in urban landscaping budgets. In conversation with a Stockholm planner, she mentioned that the main opposition towards community food gardens is maintenance, who takes care of them or their associated costs, is fundamental to their existence. Therefore, having citizens seize agency and accountability of their foodscape spaces gives them responsibility to maintain them, especially if they are in close proximity of their homes. It also gives them the opportunity to be more engaged in urban discussion, as they become keepers and voices for their foodscape by way of their experiences. The eco-urban network called Ecobox, is an example of establishing opportunity for spatial agency to occur in a neighbourhood, set up by Atelier d’Architecture Autogéérée (aaa) in 2001 (Atelier d’Architecture Autogéérée, 2009). The network started a series of food-productive gardens in the La Chapelle area of northern Paris, and is a successful example of setting up spatial agency that created a platform for social participation, collaboration, engagement and action. The project included mobile raised beds, constructed from recycled materials, giving the possibility for food cultivation, production and consumption. However, it also gave the potential for urban dialogues to form around local activities and discussions. The project, though

started and curated by Atelier d’Architecture Autogéérée, was fully operated by local residents who also took the primary role in advocating a new site when the garden was evicted from its original location. Likewise, the Gröna Linjen network is aimed to explore spatial agency within urban agriculture movement on a city-wide urban level, rather than only a neighbourhood. Its intentions were manifold and responded to what was needed for the Stockholm context: to start up urban discussions on the challenges of growing food in the Nordic city, to weave together the different urban farming initiatives along the #17 route, and to provide them with ‘a place on the map’ and within the urban fabric. Furthermore, the platform also allotted artists the opportunity to be engaged in the gardening movement, and in discussions about sustainability within the context of food. All intentions gave the possibility to inform policy where experts and citizens gathered for discussion in demonstration sites.

Hence, there is particular weight given to production of a community around this activity, and how individuals come together around gardening that is directly linked to their agency. The question remains, where should these productive foodscapes be located in order to craft this close tie and psychophysical relationship to the farmed site? Both site and interested groups need to be clearly identified for a relationship to be nurtured and to ascertain their potential impact – politically, socially and ecologically.

Critical Cartography through Community Mapping

This paper investigates new modes of critical cartography for locating and allocating foodscapes and their agents. Critical cartography is a contemporary approach incorporating both theoretical and practical underpinnings for the mapping of ‘new societies’. Here, the theoretical parameter questions the social relevance of mapping: its knowledge, ethics and power relations. The practical aspect is associated with new mapping capabilities, including development of open-sourced and pervasive tools (Crampton, 2006).

Within this research context, this relevance is further extended to include an inquiry into the anatomy of urban agriculture. Urban food production is not a



new phenomenon in Swedish urban contexts with its long-standing tradition of private allotment gardens called koloniområden. There are however not enough allotments to meet the current demand in Stockholm, coupled with long waiting lists, up to 15 years in some cases, for citizens wishing to have a space in the centre for growing food. Hence, the design challenge will be to find and create communal spaces that meet the desires of people who want to grow in them. Opportunities surface in underutilized urban plots, at the same time, producing potential for different forms of integration and participation.

Community mapping is a method within the practice of critical cartography, which could identify suitable sites, simultaneously reinforcing the project's ambition for a transfer of spatial agency. Between 1978-1986, the Calcutta organization Unnayan prepared maps to detail and locate informal settlements that did not exist in official and commercial city maps. The maps rendered the communities visible, whereas official maps labelled them as 'vacant land', illustrating how cartography can be used to gain basic rights for dwellers to 'have a place on the map' (Mogel & Bhogat, 2007). Similar to revealing communities, maps can also render invisible practices, such as urban agriculture, visible within the urban fabric. Chris Perkins defines community mapping as local mapping, produced collaboratively, by local people and often incorporating alternative local knowledge. Such democratized mapping offers new possibilities for articulating social, economic, political or aesthetic claims. He further states that 'expertise in participatory techniques is shared at the grassroots level, and that wider social influences are fundamental for all community mappers' (Perkins, 2007: 136). Critical geographer Brenda Parker (2006) states that community mapping is often centred on the allocation of local resources, or at least the judicious reallocation of resources (Parker, 2006: 470). She argues that these mapping processes serve as an empowering process, where local capacity is built-upon with the emergence of a particular 'community' around a mapping activity. Parker (2006) considers community mapping to employ three themes: inclusion, transparency, and empowerment. For inclusion, she suggests two dimensions: the involvement of populations formerly excluded from mapping, and diverse involvement within local communities (Parker, 2006: 472). She

affirms Denis Wood's reference for transparency which 'considers the lucidity of the goals, context and authorship of community maps.' She turns to Christina Drew who sees transparency as being 'associated with many concepts - including clarity, accessibility, accountability, and openness' (as cited in Parker, 2006: 472). Parker refers to Maeve Frances Lydon who states that 'Community Mapping is not mapping for or of a community, it is mapping by the community of their values, assets, and visions for the future' (as cited in Parker, 2006: 477). Furthermore, in terms of empowerment, Parker offers one viewpoint from varying sources, Freidmann, Elwood and Kyem, on the topic that describes empowerment as 'building capacities or human capital for collective action, in which communities acquire skills, politicised consciousness, or knowledge that informs or inspires collective action' (as cited in Parker, 2006: 477). All three mechanisms allow community maps to provide a medium for interaction, consciousness-raising, and conceivable action. By mapping their land, communities reclaim the territory for themselves, figuratively and literally (Parker, 2006: 479). As a result, they are better equipped to make decisions about allocation of resources, such as redefining green areas in cities to be allotted for growing food. She concludes her study on critical cartography and community mapping by stating that: 'what seems most crucial then is that scholars and practitioners draw on multiple methodological and theoretical approaches to critically evaluate community-mapping projects in a sustained manner. This effort can help sort hyperbole from politically and socially embedded "realities" of mapping agendas, and can contribute to the production of a more robust and reflexive cartographic counterculture' (Parker, 2006, 482). This statement serves as a springboard for the cartographical modes used in the Gröna Linjen intervention, where diverse methodologies endeavour to engage the community around growing food and to provide space for these green encounters. These alternative cartography practices enable new forms of urban green space to emerge, and a transfer in spatial agency to occur for a co-creative urban planning. The digital cartography tool Urban CoMapper, with the thematic of urban green potential, was designed to reveal places of and for urban food production. The tool provided participants the opportunity to map a green Stockholm through the lens that he/she would

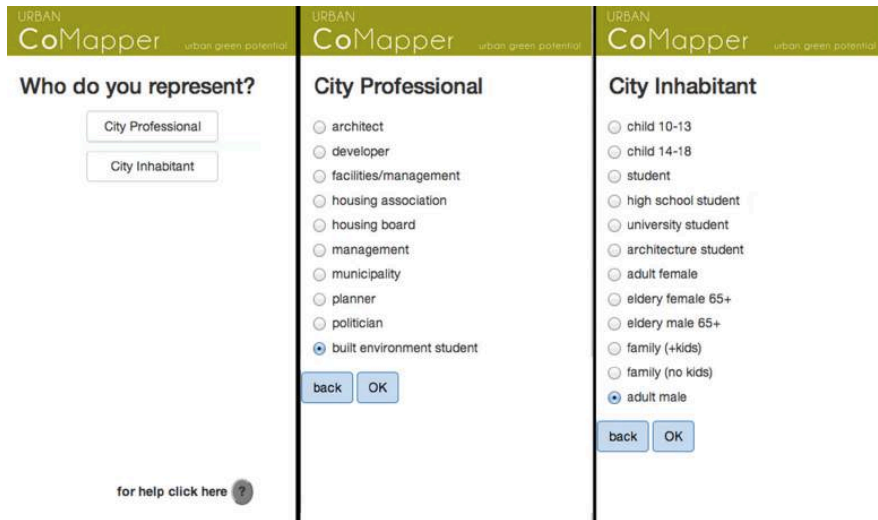


Figure 2: Urban CoMapper Interface (3 screen shots) - The survey offers city inhabitant and professional registration.
Source: Urban CoMapper 2014

like urban agriculture to be understood (Figure 2).

Citizens involved in the allocation of these green spaces take pride in being included in the dialogue concerning the allocation of green spaces in the urban fabric. In critical cartography, 'social movements employ spatial and cartographic knowledge in order to analyse and transform existing spaces and prefigure alternative ones' (Herb, Häkli, Corson, Mellow, Cobarrubias, & Casas-Cortes, 2009: 339). Their daily experiences and contact with the sites generate knowledge that could be used in the planning of urban agriculture.

Digital and Bodily Cartography – An Introduction:

The proposed strategies explore new methods for locating and allocating foodscapes. Both cartographical approaches provided for data collection, however it is the methodology and not the data that is the focal point in these investigations. Each method was diverse in its approach and documentation. The digital cartography, a smartphone app called Urban CoMapper, was used for a tacit reflection and tracing of the sites to input data in real-time from the site (Figure 3). In the bodily cartography, the participant's body was used as an interface and became an active tool for reflection. This bodily experience provided a tracing of the

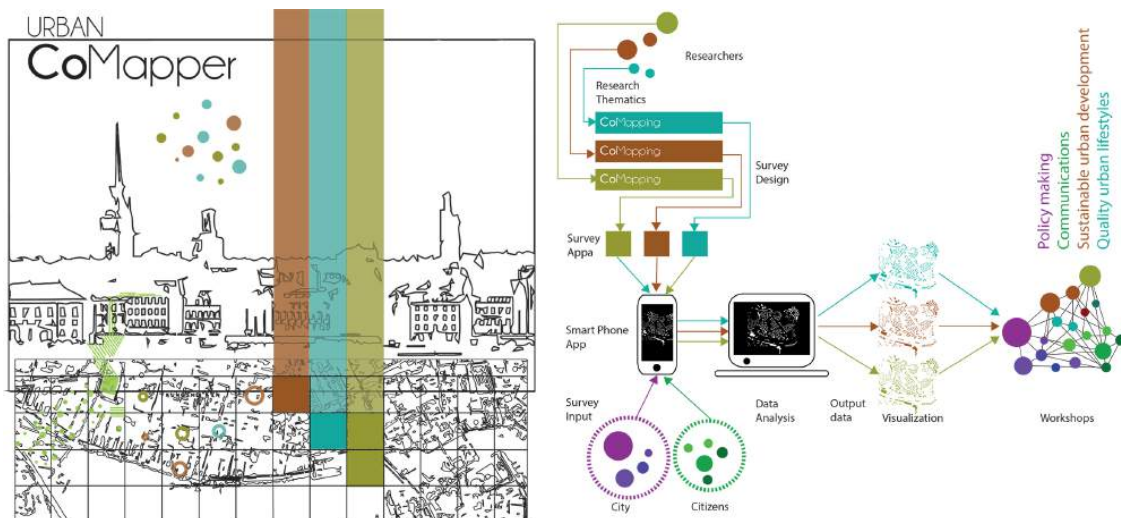


Figure 3: Urban CoMapper diagram showcasing the framework for data gathering and communication
Graphics Credit: Hye Kyung Lim & Anna Maria Orru 2014



foodscape sites on the ground, via a bike and foot tour, with the stomach and mouth for further sensorial examination of the grown data – the produce. The intervention was a bike-riding tour safari through the city along a set agenda of garden visits (Figure 4). In the tradition of a safari, participants were invited to an overland green expedition through five Stockholm's sites and met the various communities involved in the growing (Figure 5a). The intention was to have them meet gardeners, but in the process of organizing the event, it also became apparent that the gardeners did not know each other. In preparation for the safari, participants were given a small 'survival guide' booklet for their journey which outlined the timetable, route and involved persons (Figure 5b).

Digital Research Cartography - Urban CoMapper:

The digital interface, Urban CoMapper (UCM), created a web-based setting for allocating and mapping urban agriculture which could be used in the urban design process. In report for the World Future

Council, authors stated, 'In order to set up an urban agriculture programme, we need a framework of policies' (Girardet & Bree, 2009: 14). Today, many cities worldwide have instigated food councils to contemplate urban agriculture, but it is still unclear how to implement food as a seamless building block for the making of green spaces in cities. For instance, the city of Stockholm has indicated a vision for urban agriculture as part of their Green Walkable City report from observing engaged and involved citizens who currently, through their own initiative, have started gardening in Stockholm responding to a lack of available private allotments and long waiting lists for such spaces (Stockholm Stad Stadsbyggnads Kontoret, 2013). But Stockholm has yet to draw up policy for the effective inclusion of urban agriculture, or a technique for collecting data on existing and potential sites. Currently, a citizen-initiated map-blog called Stadsodling Stockholm/ City-farming Stockholm, provides a map of existing farming initiatives with data collected spontaneously through word of mouth or yearly harvesting/

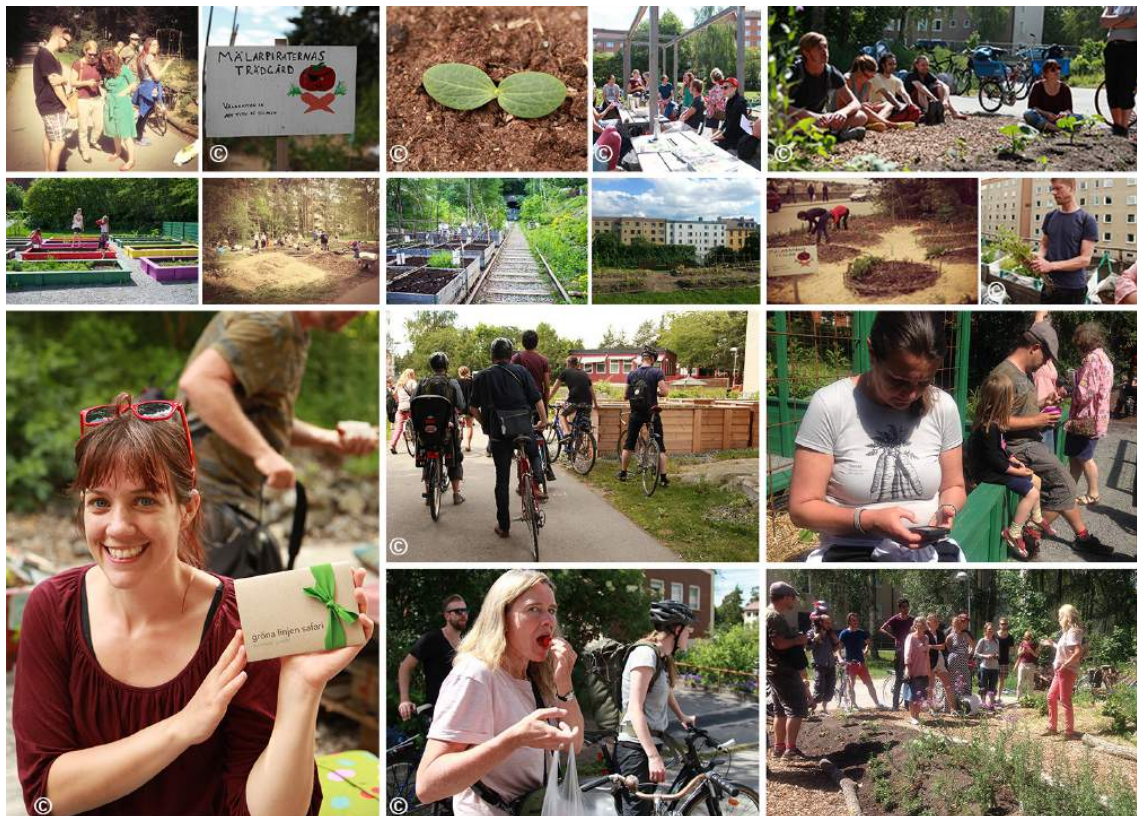


Figure 4: Gröna Linjen Safari, 15 June 2014
 Photo credit: for © images Ulrika Flodin Furås, other: Anna Maria Orru 2014

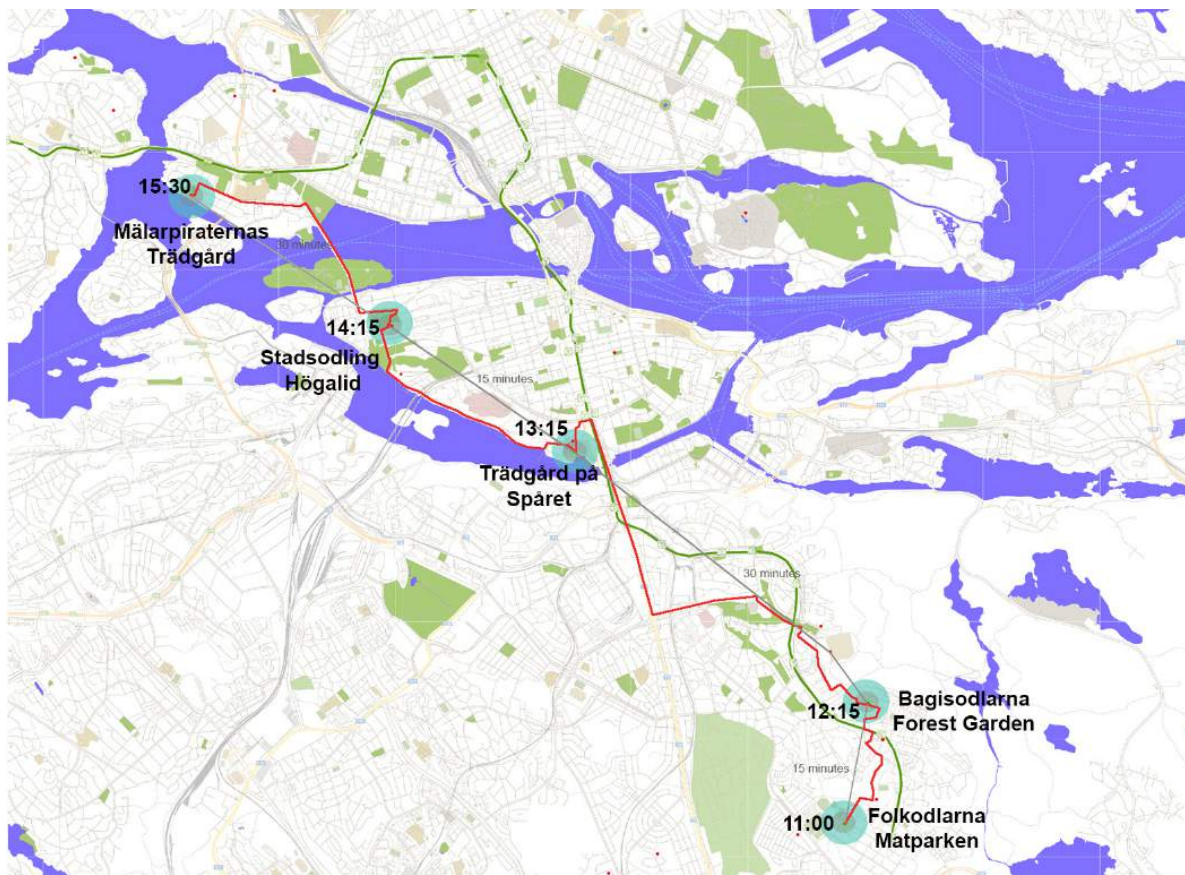


Figure 5a: Gröna Linjen Safari map: A day agenda for 5 sites
Graphics Credit: Anna Maria Orru, David Relan 2014



Figure 5b: Gröna Linjen Safari survival guide booklet
Photo Credit: (first left image) Ulrika Flodin Furås, other: Anna Maria Orru 2014

gardening events (Stadsodling Stockholm, 2013). However, there is a need for gathering this information in real-time on site by citizens themselves, keeping it regularly updated, and linking it to urban planning by feeding data directly into the design process.

The majority of these gardens are grassroots ini-

tiated and spring up where interest is assembled and implemented, which is difficult to keep track of. Therefore, how can the support be implemented and available land be allotted? The intention of the UCM tool is to connect communities to a site that is being farmed or could be cultivated, based on collected crowd-sourced data. The aim is also to connect the gardening communities to each oth-

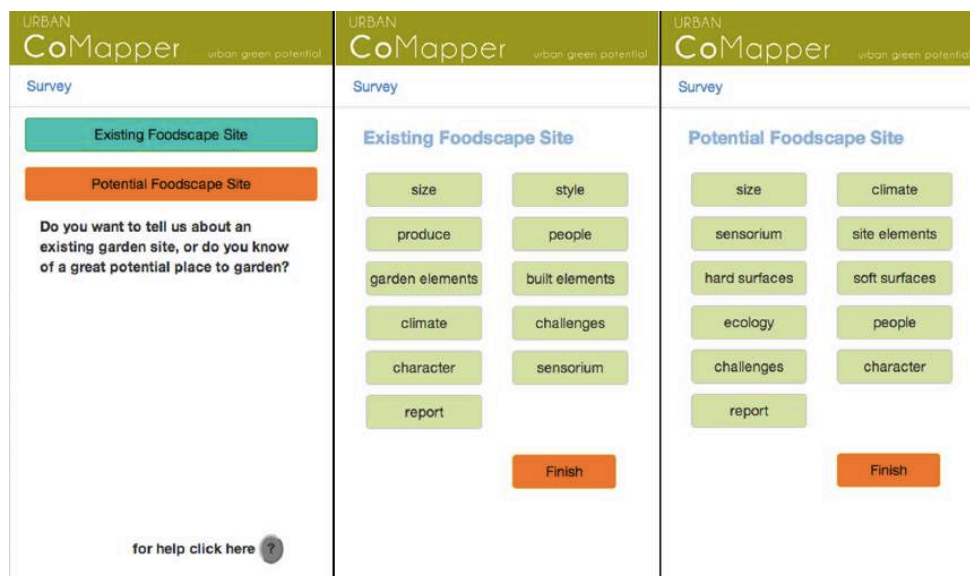


Figure 6: Urban CoMapper Interface (3 screen shots) - Survey categories for locating existing and potential sites for urban agriculture
Source: Urban CoMapper 2014

er, through the emergence of a real-time database identifying these areas and creating dialogue between citizens and planners. The tool explores the collection of data for locating both existing and potential sites. It locates the user and asks them to report their perceptions according to several interlinking factors (Figure 6). These factors include:

- Size – site size (existing sites) and location options (potential garden)
- Style – existing design, site and built elements, its sensorial description
- Site conditions - hard and soft landscaping, surface and site elements such as zoning areas and traffic conditions (potential garden)
- Produce/ecology – existing green infrastructure
- Climatic conditions pertaining to sun, wind, and seasonal perception

The aim with this range of data is to create a holistic mapping of urban agriculture that can provide adequate input into the urban design process. The collection of data via smartphone momentarily pulled participants away from the 'safari group' into their digital task, creating a reflective space to enquire the site intricately. The UCM tool becomes an interface between the users experience and their perception, along with setting up a link to urban design experts. Martijn de Waal (2014) sees urban media devices as an interface to the city, especially into the making of new urban public spheres and specialized com-

munities. It's the stage or platform where city dwellers show who they are (make their way of life public) and, as a result, become acquainted with other people's ways of life and compare themselves with them. City dwellers can recognize like-minded people and, together with others, be absorbed into new collectives (new publics) or distinguish themselves from other city dwellers (De Waal 2014: 14). Furthermore, the UCM tool becomes a 'territory device', explained by de Waal as 'an appliance or system that can influence the experience of an urban area' (De Waal, 2014: 19). This is a vital association into agriculture that establishes alternative forms and scales of the green landscape that are not mainstream urban lifestyles. This research explores whether this alternative and effective approach to identifying, greening and engaging with the city, can perhaps transform our urban behaviour around food. The challenge is whether this short exposure to gardening sites is transmissible and can arouse non-gardening individuals living close to a site, to become interested in 'growing communally'. UCM tracks such occurrences of contact, locates them, and hopes to increase the possibility for more to emerge.

In sum, the UCM tool by no means claims to have worked out themes highlighted by geographer Brenda Parker because of project limitations, such as finance, time and media design. There was also a problem of the smartphone app to reach a wide

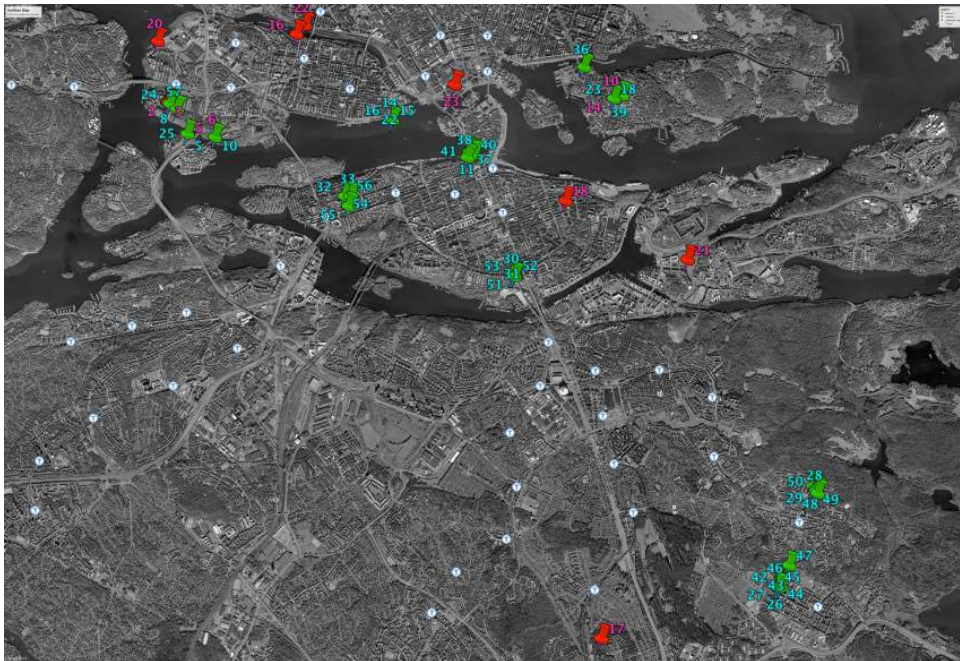


Figure 7: Urban CoMapper - Preliminary visualized map after Safari. (Red pins = Potential gardens. Green pins = Existing gardens)

Image Credit: courtesy of Google Earth Maps 2014

enough audience. However, the app managed to instigate a platform of research that highlighted sites, engaged citizens and experts in dialogue, and connected existing gardening communities (Figure 7). Continued design efforts are needed for such urban agriculture digital platforms, as are staged events like the safari, in order to promote and remedy issues associated with such tools. Here a prototype has been executed which could be used to go further into discourse with municipalities, who could develop such tools further, making them seamless and more useful to urban planning.

Bodily Research Cartography:

The bodily cartography experience allowed participants further reflection based on their bodily contact with the sites, something that could not be achieved only through the digital device. The UCM provided an opportunity to capture the perceived experience of the site but could not provide for tracking the sensorial aspects that are integral to fostering a deeper relationship with urban gardening - a bodily act in itself. The bodily tracing of the site gave opportunity to activate the bodily senses, and provided a 'lived experience' rather than only a perceived one. Its aim was to become a sensuous immersion and encounter, but how was

the bodily cartography staged? The safari activated the body in a number of ways: the cycle ride from garden to garden, the tour on foot in each garden, the act of planting a seed and seeing others that have grown, and the simple act of tasting something from the garden and eating food amongst growing produce. All these experiences viewed the body as a catalyst for a food-related awareness because of its direct connection to an embodied experience. Notwithstanding that, creating an awareness of sustainable urban eating through growing, touching and eating becomes a playful act, one in which citizens are more likely to participate.

Traversing a landscape using your body, such as walking or biking is a known and used concept in the artistic world. Artist Hamish Fulton utilizes walking as a medium to explore many different areas around the world documenting it in various formats. He describes his work as 'What I build is an experience, not a sculpture' (McKibben, Tufnell, Scott, & Wilson, 2002, 16), and believes that walking, unlike objects, has a spiritual dimension to it that cannot compete with an experience (Vettese, Hapkemeyer, & Messner, 2005). Fulton's art is connected to the environment in some manner, encouraging us to gently revisit our personal relationships with it. He may



place his walk at a juxtaposition of seasons in order to experience them, observing the interconnectedness between the wilderness and at times the urban environment (Fulton, 1999). Another example, where walking is used as a device and research, is by architect Francesco Careri. He refers to this as 'an instrument of phenomenological knowledge and symbolic interpretation of the territory, as a form of a psychogeographical reading of it' (Careri, 2009: 11). Using bodily experiences to understand a site is synonymous to how performance studies looks into different ways that a body can be sourced for comprehending an emotion. The term psychophysical blurs the border between mind and space, where the body in a particular physical space can be used for creating awareness, in this instance, a body in a space that grows food can create an awareness of our food-related behaviour. This extends to a lived understanding of food in different seasons. Nordic winters pause food gardening, and thus an experienced physical understanding transpires of what is available to eat through the lack of it, or non-act of it. The body in essence becomes a political body with knowledge to give. This does not assume a Cartesian approach to the subject, where the body is transformed only into an object of knowledge, because the body is also a lived experience or entity. Here, the research is underpinned by phenomenology, developed by Maurice Merleau-Ponty, who described this sensorial based experience of the world. He stated that 'sense experience is that vital communication with the world, which makes it present as a familiar setting in our life. It is to it that the perceived object and the perceiving subject owe their thickness. It is the intentional tissue which the effort to know will try to take part' (Merleau-Ponty, 1962: 61). Likewise, Constance Classen (2010) argues that, 'A full bodied experience of the world requires all the senses. If we are to counter the domination of sight in contemporary culture, Classen suggests paying attention to touch. By cultivating tactile values of intimacy, interaction, and integration - values that promote engagement with our physical and social worlds - we can more effectively sustain both our cities and ourselves' (Classen, 2010: 69). Both Classen and Merleau-Ponty support the association between the sensorial bodily experience and psychophysical awareness. Performer Ladrón de Guevara clarifies this 'lived body' to senses connection further. He states, 'we experience and

make sense of the world through the interplay of a wide range of senses, systems, internal and external stimuli. Merleau-Ponty refers to this dynamic grouping as one's being-in-the-world. Our perception not only filters (and therefore articulates) reality but also, it necessarily implies as active engagement with the world surrounding us' (Ramírez Ladrón de Guevara, 2011: 25). One can argue that it does not only imply, but rather mandates this bodily engagement to take place, 'because our conceptual systems grow out of our bodies, meaning is grounded in and through our bodies' (Lakoff & Johnson, 1999: 6). For it is in this activated role that we develop a relationship with the outside world, and with our ecological values, gesturing us to engage or not and perhaps change our behaviour.

Another difference between the bodily cartography from the digital is that it was an activity done in a group rather than by oneself. Whereas the digital interface made participants input data into a smartphone in an isolated practice of concentration, the bodily experience was conducted with other participants together in a group. 'Sensuous encounters between individuals and environments are produced and structured, not just by their material features, but also by the particular social and cultural contexts in which encounters take place' (Cowan & Steward, 2007: 2). The experience of these spaces was changed when it was done within a group tracing the route. Activating a body by oneself is a reflective and intimate encounter, however activating it within a group dynamic allows for the 'act' to become a peer interaction and critical conversation to take place. What becomes interesting is that through the bodily group experience, versions of spatial agency occur. As Martijn de Waal referred to digital tools as territory devices, where like-minded people recognize and create collectives with each other around an activity, could this collective bodily experience also be seen as form of collective and territory making? In essence, both the bodily and digital exercises could not be conducted by themselves if they are to commit larger questions of sustainable behaviour.

The Role of Artistic Practice in Urban Agriculture

Though both methods of cartography differ in their approach, it could be said that their compli-



mented combination, along with the Gröna Linjen and safari experience, makes way for new forms of artistic research into cartography. The bodily tracing and experience of urban agriculture lends to strengthening its impact and longevity into mainstream lifestyles. The way to get participants is to guide them on an experience of this kind, introduce them to a growing community, and wrap the experience in a creative playful envelope. In essence, the aim of the Gröna Linjen safari was to overlap sustainable living with garden play, composing sustainability into a pleasurable encounter. To this extent, the research interventions not only intended to take participants on a nomadic excursion but also to 'intersect' food artistically. The safari invited several artists to investigate food through artistic performance and discussion. One artist, Malin Lobell, discussed the politics behind urban growing. Her art piece entitled 'kan växter bli politis-

ka?' (can plants be political?) was exhibited in the Hogalidsparken garden in the Hornstull neighbourhood (Figure 8). In addition, at the Mälarpiraternas Garden, Lobell together with artist Ulrika Jansson moderated a discussion on the role of art in urban gardening (Figure 9).

Finally, artist Andrea Hvistendahl conducted a glimpse into the bodily interface with her performance 'No Waste Cooking.' Her artistic practice engaged participants to trace their neighbourhoods using their stomachs by bringing up the discussion of wasted food in society. Participants were welcomed to ingest the delicacies from the Mälarpiraternas garden in the neighbourhood Fredhäll and from local supermarkets' that had volunteered their expired produce (Figure 10A and 10B). The body once again took on a reflected internal journey of what nature provides in the city, and how we con-



Figure 8: Artist Malin Lobell's exhibition on the politics of plants
Photo Credits: Ulrika Flodin Furås 2014



Figure 9: Artists Malin Lobell and Ulrika Jansson in discussion
Photo Credits: Anna Maria Orru 2014



sider this prospect.

All these performances gave yet another dimension of an artistic approach to food-related behaviour in the city. They assembled dialogues into what role artists and creative urban practices play in urban agriculture and its dissemination. In the book following the Foodprint exhibition, Louise Fresco, a Dutch scientist was quoted from her 2005 Cleveringa Lecture, 'food stands at the beginning of all moral awareness. Food implies many dangers: not only health risks, but also challenges to values and ways of life. We need a new paradigm, a coherent set of rules of conduct for individuals, government bodies, businesses, and civil society, so that food can once again become central to a fair and sustainable global society' (Van Roosmalen, 2012: 10). Arno van Roosmalen (2012), director from the art centre stated: 'art can play a role in this process through its capacity to create unprecedented situations, present parallel worlds, and make the invisible visible. In these ways, art can spark individual awareness of ethical, social and political issues and speak to the motivations, convictions, or emotions underlying rules or laws' (2012: 10). It can be said that sustainability needs a more creative approach, combining art with science, in order to make citizens participate and take agency for their cities.

Concluding statements

In summary, this paper responded to several research gaps as highlighted in the Swedish Formas report on urban sustainable development. The proposed strategies offered a platform for alternate participation for engaging citizens into the urban design process with underpinnings from critical cartography and spatial agency. An urban platform called Gröna Linjen was formed to stage an intervention safari through Stockholm's urban foodscapes. Methodologies for digital and bodily cartography were used to locate existing and potential sites for urban agriculture. The digital approach designed a smartphone app for locating and allocating space for urban agriculture through a perceived experience of the site. The bodily approach used the body as a device for recording the sensuous encounter through the lived experience of the site. At the start of the research, it was assumed that the two cartographic modes were in opposition to each other. What came through after the intervention was that both modes complimented one another, and if we are to include citizens in the urban design process, both are needed for a holistic approach. The purposes behind these experiments are clear and motivated: the first was to create new engagement processes into the urban design process, forming new practices for citizens' contribution into urban poli-



Figure 10A: Andrea Hvistendahl performance with ingredients from local supermarkets set to be thrown away.

Photo Credits: Anna Maria Orru 2014



Figure 10B: Andrea Hvistendahl - 'No Waste Cooking'
Photo credits: Ulrika Flodin Furås 2014

cy and to build a bridge for dialogue with experts. Another was to give alternative opportunities and platforms for citizens to have spatial agency for their green spaces. Finally, it challenged our rapport with the natural urban environment and our food-related behaviour in the city. All these notions bring urban agriculture into the forefront as necessary alternative ways of making urban green spaces because of its ecological, social and political impact. Future research will broaden the use of artistic research into studying food in urban sustainable design. The intervention strengthened the author's intuition to use the body as an interface and cartographical instrument because of the sensuous information it can gather which the digital interface could not. The next set of research experiments will use a form of Japanese dance called Butoh to further intervene with urban agriculture, as its choreography is taught through the act of farming itself. The question remains: what paradigm shifts in urban sustainable design and behaviour could concur from positioning the body in recreating urban space?

¹ Urban CoMapper app was developed during 2014 by PhD candidates, Hye Kyung Lim and Anna Maria Orrù, with two varying research thematics: Urban Green Potential-Foodscapes and Compact Mixed City.

² The Gröna Linjen platform was initiated by Christina Schaffer, Ulrika Flodin Furås, Mattias Gustafsson, Ulrika Jansson, Malin Lobell and Anna Maria Orrù.

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Conflict of Interests

The author hereby declares that there is no conflict of interests.

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paper 2

Time for an Urban (Re)evolution - Negotiating Body, Space and Food

The 1st PARSE Biennial Research Conference on Time - 2015. Gothenburg, Sweden.

Abstract

This paper explores the artistic method of butoh dance in order to bring the body into the process of shaping the urban environment through techniques such as: rebellion, interaction, mimesis, agro-roots, transformation, metamorphosis and reflection. Placing the body at the centre of my methodology, through performance and an experimental-making of the stage, I explore its negotiation with time, space and food. The Japanese spatio-temporal concept *ma* – an interval, awareness – is used to understand the relationship between temporal and spatial progression, awareness and the potential in this ‘interval’. From within architectural research I pose the question: How can the interaction of the body in butoh practice and food production, set in relation to one another, improve understanding and handling of urban space where time is an aspect in design? The use of butoh exposes a ‘time’ orientation in space, and on the transformation of everyday ‘rhythms’ and behaviour with food.

Keywords: Embodiment, butoh, everyday rhythms, urban food production, Imagineering

Full paper available in licentiate thesis (Orrù 2016)

Corporeal Encounters with farmscapes - curating an embodied methodology for ecological urban-making

8th AESOP Sustainable Food Planning Conference - 2017, Coventry, UK

Abstract

The past decade has produced a thriving archive of urban farming examples and enthusiastic urban inhabitants implementing food gardening in the Global North. Despite all collected knowledge and skills, there still exists a distance between awareness and more extensive committed action. This slow uptake calls for furthering the boundary of alternate methods in urban-making in which artistic research can expand spatial imaginations that trigger experiential ecological awareness and becoming. This paper explores methods which aim to traverse this gap by employing the body as a main tool of inquiry. How can we enable and set up modes of curiosity-driven encounters that activate ecological awareness and imaginaries which transform into a methodology for exploring new delicious urban fictions to live by?

In using artistic research approaches, there is potential to encounter urban food issues by setting up different spatial relations with nature in the city that activate deeper commitments to the environment and go beyond local food movements and surface tactility. An underlying experiential 'thickness' exists in the corporeal-to-space relation that needs exploration as it can motivate an ecological place attachment to these farmscapes that flies under practice and theory radars. This paper presents the case study 'Organoleptic Interfaces' to exemplify three modes of inquiry through its interfaces. The first mode, 'Paperscapes', includes a making-knowledge workshop delving into Masanobu Fukuoka's natural farming theory. A second methodology utilizes performance to disseminate such knowledge to a wider unassuming audience. The third approach deepens the visceral practice with a Butoh choreography workshop exploring embodied and sensorial understandings of ecological practice. The case is accompanied by a short film essay that is appended to this paper.

Results include an assortment of reformulated embodied methodologies for curating a corporeal politics and poetics in ecological urban-making around farmscapes, and an extended curiosity that has potential to reach wider urban audiences. Artistic research has the ability to stage surprises and an awareness that might not be found with normative practice and theory. We eat daily and the body is a fundamental untapped resource in the way that we live in and treat urban contexts.

Keywords: Embodied methodology, butoh, artistic research, ecological commitment

Full paper available in AESOP Sustainable Food Planning Conference 2017 proceedings (contact Author)

paper 4

Body Weathering - Poethic Nebular Intentions

Art of Research Conference - 2017. Helsinki, Finland.

Abstract

Weather is not an object experienced from a distance, but rather a medium in which every living being is immersed. This weather reporting views clouds as 'containers of possibility,' as an infrastructure for thinking about the body as a vibrant, experiential and living matter to reinforce a direct relation to nature – merging land and sky. Because environmental commitments are complex, I enter the challenge through exploring embodied modes of inquiry into urban-making using a corporeal relation to clouds and atmosphere, exploring their common materiality through a day's workshop culminating into a performance (expressed as intermissions). The artistic research is grounded in a Butoh choreography practice called Body Weather, performing fabulations with clouds supported by theoretical roots in corporeal studies, vibrant materialities, environmental imagining, atmospheres and assembled relations. I engage with the question of how to curate a corporeal poetics in urban-making with clouds in mind, and what if bodily movements created atmospheres to ecologically live by? My intent is to cultivate an artistic embodied approach to urban-making, thinking through clouds and embracing the body as a refined medium for generating a poethic – poetic and political – entangle with space.

Keywords: clouds, urbanism, weather, choreography, poethics, embodied methodology, environmental artistic research

Full paper available in Art of Research 2017 proceedings (contact Author)

Matkultur framtidens metabolismer

English title: *Urban Metabolism - A new food culture for refurbishing*

(The original text is published in Swedish. This is an abstract in english)

Introduction

The concept of *urban metabolism* grew was coined around in 1965 by Abel Wolman, who applied it to compare an organism to a city, thus forming a theoretical basis for early biomimicry-inspired work. The term then began to be used to describe the consumption of resources and waste generation as indicators of sustainability.¹ So, how can it be applied in contemporary refurbishment practice? This paper investigates the solution exemplified in urban food and the potential in its metabolic relationship to the built environment.

Cities require new strategies that have less reliance on our high-energy and technologically-dependent food systems.² Given that one third of Sweden's building stock is set for upgrade, there is a strong opportunity to confront this challenge during the refurbishment process. A move to link refurbishment with cyclical food systems can increase our cities resilience to future climate change. These strategies require emphasis on local produce, local economies, and low energy lifestyles, all linked to seasonal eating.

Our proposed template for these new strategies comes from 3 approaches; the discipline biomimicry, the concept of urban metabolism, and a systems thinking methodology. The discipline of *biomimicry*, seeing nature as a source of inspiration in sustainable urban design, can aid us to conceptually compare a city's complexity to swarm behaviour that is typically associated with termites, ants, birds and bees. These swarms have evolved to behave cooperatively where each organism contributes to the welfare and efficiency of the whole. Mimicking this model, how can we design cities to liken organic systems that embody a swarm-like behaviour between its inhabitants and the built environment? We explore a suburb near Stockholm called Byälsvägen, that can become a pilot example for a future green social strategy within refurbishing. This strategy accentuates collective ways of living within private dwellings that promote a new food culture around food production and distribution. Our urban food cycles have a high degree of complexity in how an area feeds itself, and our food cultures arise from numerous lifestyle choices: eating, cooking, buying, preserving, and growing. These behaviors need to be reflected in any proposed design strategies.

1 For further reading: Abel Wolman, "The Metabolism of Cities," *Scientific American* 213(3), (1965): pp. 179-190. Peter Newman, *Sustainability and Cities: Extending the Metabolism Model*, *Landscape and Urban Planning* (44), (1999): pp. 219-226

Stockholm Environment Institute and Technische Universität Berlin, *Developing a Pragmatic Approach to Assess Urban Metabolism in Europe: A Report to the European Environment Agency*, (2010)

2 World Future Council, Herbert Girardet and Dr. Axel Bree, *Cultivating the Future: Food in the Age of Climate Change*, Hamburg, Germany (2009)

Matkultur framtidens metabolismer

Anna Maria Orru

For essay in translated into English see licentiate thesis (Orrù 2016)



Inledning:

Begreppet *urban metabolism* myntades omkring 1965 av Abel Wolman som med hjälp av det jämförde en levande organism med en stad. Han lade därmed den teoretiska grunden för tidigt bio-inspirerat arbete. Begreppet har sedan kommit att användas om resursförbrukning och avfallsproduktion som indikatorer på hållbarhet.¹ Hur kan det då tillämpas inom moderna praktiker för stadsutveckling? I den här essän undersöks en lösning med urbana matsystem som exempel och deras potential i ett metaboliskt förhållande till den byggda miljön.

Våra städer behöver nya strategier för matförsörjning som i lägre grad använder teknikberoende matsystem med hög energiförbrukning.² När nu en fjärdedel av Sveriges bostadsbestånd är i behov av upprustning har man ett utmärkt tillfälle att bemöta dessa samhällsutmaningar i renoveringsprocessen. Genom att integrera cykliga matsystem i förynelsen kan vi öka stadernas motståndskraft mot framtida klimatförändringar. Sådana strategier kräver fokus på lokal produktion, lokala ekonomier och en resursnål livsstil kopplat till säsongsbetonad matkonsumtion.

Vårt förslag på modell för dessa nya strategier tar avstamp i tre områden: fältet biomimetik, konceptet urban metabolism och ett systembaserat tänkande. Inom fältet biomimetik är naturen en inspirationskälla för hållbar stadsplanering. Utifrån den tanken kan vi jämföra en stads komplexa förhållanden med ett svärmbetende, typiskt för termiter, myror, fåglar och bin. I sådana svärmar har beteendet utvecklats till ett samarbete där varje individ bidrar till helhetens bästa. Genom en imitation av den modellen ställer vi oss frågan hur vi kan planera städer som liknar organiska system med ett svärmlänkande beteende mellan invånarna och den byggda miljön. Vi undersöker bostadsområdet Byälvsvägen i Stockholmsförorten Bagarmossen som

1 För vidare läsning: Abel Wolman, 'The Metabolism of Cities', *Scientific American* 213(3), (1965): 179–190; Peter Newman, 'Sustainability and Cities: Extending the Metabolism Model', *Landscape and Urban Planning* (44), (1999): 219–226; Stockholm Environment Institute and Technische Universität Berlin, 'Developing a Pragmatic Approach to Assess Urban Metabolism in Europe: A Report to the European Environment Agency', (2010)

2 World Future Council, Herbert Girardet and Dr. Axel Bree, 'Cultivating the Future: Food in the Age of Climate Change', Hamburg, Germany (2009)

kan bli ett pilotprojekt för en framtida grön social strategi inom stadsutveckling. Strategin belyser kollektiva levnadssätt för privata bostäder, något som kan gynna en ny matkultur i relation till produktion och distribution av mat. Våra urbana matcykler är mycket komplexa sett till ett områdes matförsörjning och matkulturer skapas ur livsstilsval på flera områden: måltiden, matlagning, inköp, resurshållning och odlade. Alla förslag på modeller måste ta hänsyn till dessa förhållanden.

Biomimetik

Fokus för fältet *biomimetik* är att utveckla hållbara lösningar på samhällsproblem med inspiration från naturen. Under en 3,8 miljarder år lång testperiod har naturen skapat en mängd modeller som vi kan imitera.³ Leonardo Da Vinci var en föregångare i sitt sätt att använda naturen som förebild, vilket man ser i många av hans uppfinningar.⁴ Begreppet *biomimetik* dök upp i den vetenskapliga litteraturen för första gången 1963 och började användas i större utsträckning under 1980-talet, främst inom materialvetenskapen. Men det dröjde till mitten av 1990-talet innan biologen Janine Benyus utvecklade och etablerade fältet. Hennes skrift från 1997 i ämnet innehöll konkreta exempel, metoder och koncept för forskning inom fältet. Hennes arbete med att ta fram uppfinningar med naturen som kunskapsbank fortsätter än i dag och på nya områden som arkitektur och urbanism. Arkitektkontor som HOK, Grimshaw och Exploration Architecture har gjort en pionjärinsats för forskningen och arkitekturen genom att bjuda in biologer till sina ritbord.

I mitt arbete inom fältet, både vid Exploration Architecture och i min egen forskning, har jag använt naturen som en lins när jag arbetar med matsystem. Vad jag försöker göra är att omvandla byggd miljö, byggnader och mat till reparativa, resilienta och regenerativa kontexter som liknar naturens sunda ekosystem. Naturens ekosystem har en cirkulär metabolism där all energi som går ut ur en organism återvinns av en annan så att helheten upprätthålls. Författaren Herbert Girardet be-

skriver detta som ett evigt nätverk av liv som är sammanlänkat i en kedja av gemensamma fördelar och sammankopplat genom näringsflödet från en organism till en annan.⁵ Hans tes är att människan ingår i det nätverket och att den urbana miljön måste betraktas som en förlängning och ett komplement till den typen av kretsloppsfunktion. Att imitera ekosystem är därför det samma som att imitera den inneboende cirkulära metabolismen i levande ekosystem. Detta materialiseras i sökandet efter matproduktion i urban miljö. Genom maten kopplas vi undermedvetet till naturen och genom den upprätthåller vi ett nära förhållande till den. Därför kan mat bli en instinktiv byggkloss med vilken vi kan införa dels urbana metaboliska förhållanden, dels hållbara urbana levnadssätt. Samtidigt belyser maten frågor om hur vi kan bebo staden på ett hållbart sätt och hur vi ska planera livsmedelsförsörjningen för denna och kommande generationer.

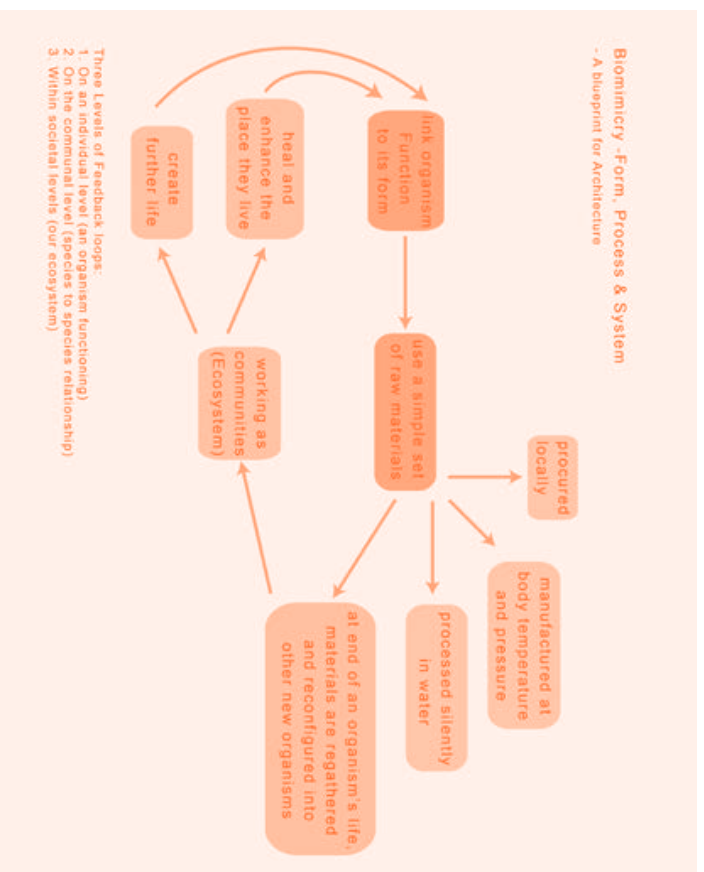
Kan vi omvandla en byggd miljö som åter upp resurser till ett förnyelsebart stadslandskap som producerar resurser? Det finns en strävan efter att skapa sammanlänkade system för matproduktion och att hitta kreativa vägar att hantera avfallet som skulle kunna leda till en medvetenhet om säsongsbetonade matvanor. Det går att uppnå ett framtida urbant landskap som är resiliент och bygger sunda relationer med hjälp av miljövänliga boendemiljöer både inomhus och utomhus, vilket kan införlivas i stadsförnyelsepraktikerna. Här kommer vi främst att fokusera på utomhusmiljöer och hur de bidrar till kritiskt rumsskapande. Utgångspunkten är ett potentiellt projekt i Stockholm med stöd från andra inspirerande internationella exempel.

Eftersom *biomimetik* utspelas på både makro- och mikronivå går det att använda en systembaserad metod. Bio-metoden tillämpas i tre stadier: form, process och system men konceptet belyser även tre nivåer av återkoppling: inom organismen (individens i samspel med den lokala miljön), mellan arter (samhället i ömsesidigt beroendeförhållande) och inom ekosystem (betraktat som decentraliserat och utspritt samhälle) (BILD 1). Dessa diagram visar ekosystemets cirkulära funktion med naturen som lins och en jämförande tillämpning på mänsklig infrastruktur. Naturliga ekosystem är lokalt etablerade och använder de

3 Janine Benyus, *Biomimicry: Innovation Inspired by Nature*, (USA, HarperCollins Publishers 1997, reissued 2002)

4 Michael Pawlyn, *Biomimicry in Architecture*, (UK, RIBA Enterprises, 2011)

5 Herbert Girardet, *Cities People Planet: Urban Development and Climate Change*, (England UK, John Wiley & Sons, 2008), 123



resurser som finns och som är riktigt förrekommande. Avfall omvandlas alltid till en resurs och slängs inte på en sopptipp. Detta är en enkel princip men för att den ska fungera praktiskt som modell för stadsformelse och i privata bostäder måste man installera rätt infrastruktur.

Urban Metabolism:

Som jag förklarade inledningsvis är urban metabolism inte ett nytt begrepp. Författaren Carolyn Steel tecknar en historisk analys av staden och maten, från de tidiga staterna och städerna (cirka 3500 f.Kr.) till de första bosättningarna i Uruk och Ur där man införde regler för stadsplanering omkring skördetid.⁶ Under den här perioden föds jordbruket och staden samtidigt i form av bosättningar som utvecklas som stöd för odlingen. Jordbrukslivet som följde årstridernas växlingar tvingade människan att bli bofast för sin överlevnad. Steel förklarar att det var först under romartiden 300 f.Kr. med de första transportvägarna som man böjjade transportera maten över större avstånd. Det var en viktig vändpunkt för matsystemen och representerar övergången från lokal matproduktion till exportproduktion, ett system som vi fortfarande är starkt beroende av. En annan intressant historisk referens till matsystem finns hos geografen Johann Heinrich Von Thünen i skriften *Der isolierte Staat in Beziehung auf Landwirtschaft und Nationalökonomie* (den isolerade staten med avseende på landbruk och nationalekonomi) från 1826. Han skapade en ekologisk, rumslig och ekonomisk modell för att förstå förhållandet mellan staden och de lokala jordbrukarna men också det inbördes sambandet mellan livsmedelsmarknader, transportvägar, matproduktion, odlingsystem och deras placering. Detta kan vara ett av de första exemplen på systemänkande applicerat på stadsplanering. I ett diagram (BILD 2) presenterade von Thünen en hållbar teori för jordbruket under tiden före järnvägen (före 1840).⁷ Detta är ett viktigt datum eftersom järnvägens ankomst innebär ytterligare en stor förändring för matsystemen med avseende på matproduktionens kvantiteter och planering. Ett exempel på den

⁶ Carolyn Steel, *Hungry City: How Food Shapes our Lives*, (London UK: Chatto & Windus Publishers, 2008)

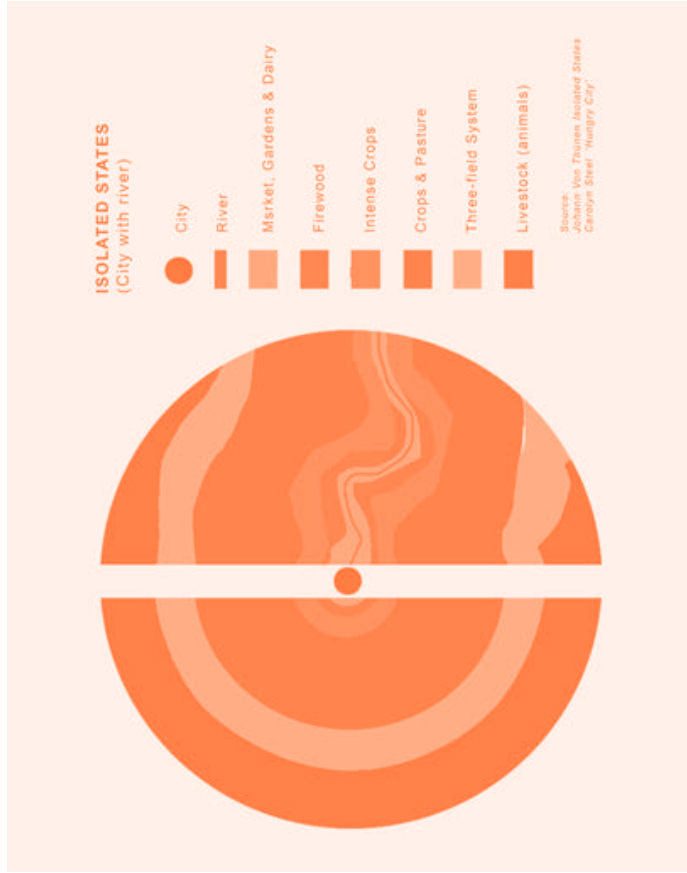
⁷ Herbert Girardet, *Cities People Planets: Urban Development and Climate Change*, (England UK: John Wiley & Sons, 2008), 52–54

övergången är Chicagos första fabrik för massproduktion av boskap som skulle möta den ökade efterfrågan på kött.⁸

Traditionella städer organiserades alltså med lokalt producerade livsmedel medan våra moderna städer i mycket högre grad använder globala livsmedelskedjor. Det visar att vi kan dra viss lärdom av det förflutna och anpassa den kunskapen till dagens moderna städer. En bra början skulle vara att investera i själva infrastrukturen och den politik som genererar och upprätthåller de inbördes lokala förhållandena mellan samhälle, urban matproduktion, distribution och avfall.

Girardet formulerar moderna strategier för en urban metabolism. Han ser staden som en superorganism, en komplicerad levande kropp med flera interagerande organ som kan jämföras med en människokropp.⁹ (BILD 3) Det innebär att han betraktar invånare, byggnader och städer genom en biomimetisk lins och ser dem som levande/fungerande organismer. Staden tolkas som en levande och sund organism som förbränner, har en cirkulation och vars kretslopp exemplifieras med mat och organiskt avfall. Varje byggnad betraktas också som en organism som lever inom ett eget kollektivt ekosystem där varje individ representerar en organism som arbetar i svärmen mot ett gemensamt bästa. (BILD 4) I den cykeln är metabolismen summan av alla biologiska, kemiska och fysiska processer som pågår inom en organism eller ett ekosystem så att det kan fungera obegränsat.¹⁰ (BILD 4) Stockholm tenderar mot en linjär metabolisk organisation, också om man tar hänsyn till de senaste tjugo årens förbättringar på återvinningsområdet. Stockholm har ingen övergripande politik för obligatorisk återvinning av organiskt avfall för hela storstadsregionen. Det kan jämföras med Wien där detta är fallet sedan tjugo år tillbaka. Mat importerats fortfarande i hög grad till våra städer över långa avstånd, konsumeras under fel säsong och kastas som avfall på soptippar. Konsekvensen av detta är att organiskt material blandas med oorganiskt och att miljöfarliga gaser släpps ut i atmosfären.

- 8 Carolyn Steel, *Hungry City: How Food Shapes our Lives*, (London UK: Chatto & Windus Publishers, 2008)
- 9 Herbert Girardet, *Cities People Planet: Urban Development and Climate Change*, (England UK, John Wiley & Sons, 2008), 108–109
- 10 Herbert Girardet, *Cities People Planet: Urban Development and*



I Thürens diagram är staden organiserad i koncentriska cirklar. Odlingcirklarna är kopplade till matens vikt och rörlighet eftersom transporter på den tiden var dyra och långsamma. I stadskärnan finns urbana marknader, trädgårdar och mejerier som enkelt kunde distribuera till invånarna. I en idealisk situation låg staden vid en flod så att varorna smidigt kunde transporteras vattenvägen. London, Stockholm och Göteborg var historiskt organiserade på detta vis. Thünen menade att man skulle odla mer intensivt och i större omfattning i stadens utkanter eftersom det innebar kortare transportsträckor. Den yttre cirkeln representerar betesmark. Därifrån kunde man leda boskapen in till stadskärnan där den slaktades på plats. Smithfield market i London är ett historiskt exempel på en sådan plats.

Mot en systemtänkande modell

Om man tillämpar en systemtänkande modell kan utvecklingen mot en cirkulär metabolism innebära flera systematiska fördelar. Fördelarna kategoriseras utifrån ekonomiska, miljömässiga och sociala kriterier. Men dessa kriterier hänger också samman med varandra och är starkt avhängiga tekniska och politiska system.

De ekonomiska fördelarna är att avfallet blir en kostnadseffektiv och värdefull resurs för nytt material. Detta leder till minskad konsumtion och effektiv användning av dyrbara råvarutillgångar. Det skapar dessutom lokala arbetstillfällen inom underhållet av de slutna systemen och produktionen/distributionen av mat. Miljömässiga fördelar är bland annat resursproduktionen genom maten som odlas, frisk åkermark och biogasenergi om sådan teknik finns. Det leder till minskade miljöföreningar i termer av utsläpp och minskat organiskt avfall till soptippar. Totalt sett ökar en sådan modell den biologiska mångfalden och pollinationen i urbana miljöer, vilket reglerar mikroklimatet. Sociala fördelar visar hur fundamental människans roll är i den cirkulära metabolismen. Sociala kopplingar stärks genom att det lokala samhället växer, utbyter information, utbildas och engageras. Mat är ett grundläggande verktyg för sammanhållning i ett samhälle och en viktig kulturprodukt. Ur utbildningssynpunkt ökar maten medvetenheten om förhållandet mellan natur och stad, vi lär oss odlingstekniker och förstår hur maten kommer till våra tallrikar. Psykologiskt sett har odling en rehabiliterande funktion, den minskar stressen i stadslivet och har positiva hälsoeffekter. Sveriges lantbruksuniversitet bedriver omfattande forskning på området.¹²

Byälvsvägen – en fallstudie i Stockholm

Ingredienser i en ny matkultur är bland annat hållbara urbana livsstilar, stark lokal sammanhållning, medvetenhet om matbeteendena förutom alla de fördelar som beskrivs ovan. I förorten Byälvsvägen finns förutsättningarna för att testa en sådan förnyelse på metabolisk

väg. Där finns många gröna öppna ytor och området gränsar till ett naturskyddsområde. De lokala banden är också starka, vilket spelar en viktig roll för en sammanhållen och långvarig matkultur. Genom att återaktivera områdets gemensamma rum kan man skapa möjligheter för gemensamma tjänster och lokala mattekniker som tar hänsyn till produktion och den sociala solidaritet som följer med sådana tjänster.

- × För en bild av Byälvsvägens nya matkultur är en tankearta över systemen i området till hjälp som modell för den nya infrastrukturen. (BILLD 5) Kartan är en prototyp för hur en metabolistisk modell kan användas i olika återkopplingsprocesser och produktivetsmodeller eftersom den visar systemens inbördes relationer.
- × Nedan följer en lista med förslag på infrastruktur för Byälvsvägen med tankekartan som utgångspunkt:
- × Produktionsväxthus med kolonilott (även vintertid). Växthusen kan till exempel placeras nära tvättstugan för att dra nytta av värmen därifrån. Ett bra exempel på detta är de renoverade Solhusen på Kanelgatan i Göteborgsområdet Gårdsten.
- × Allmänna odlingslotter utomhus, både gemensamma och privata. Enligt författaren John Jeavons behöver en familj på fyra personer en jordlott på cirka 90 kvadratmeter med sex månaders odlingssäsong för att leva självförsörjande (i regel används två tredjedelar av ytan till spannmålsodling).¹³
- × Infrastrukturen på de renoverade byggnadernas fasader ger de boende möjlighet att odla vertikalt på väggar, balkonger, tak och/eller fönsterbrädor. Detta omfattar infrastruktur i varje lägenhet för förvaring och passiv kylning av mat.
- × Lokal insamling av bioavfall (kompost) som visar att organiskt avfall är en resurs i odlingen. Anläggningarna kan producera gödsel till kolonilotterna eller generera energi till växthusen via småskaliga biogasanläggningar.

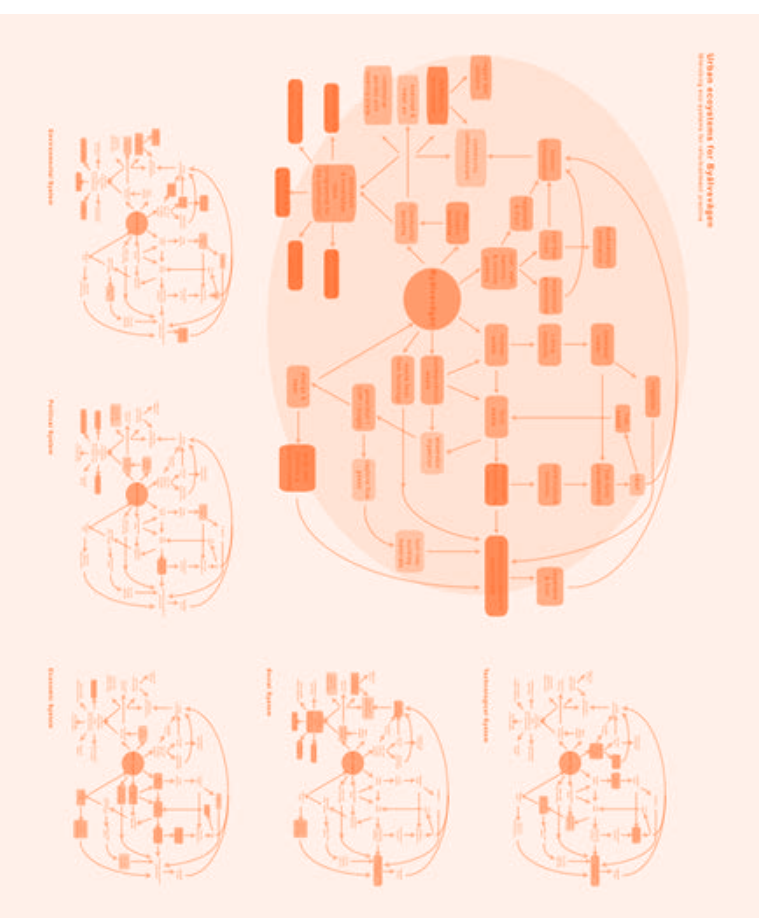
¹² Mer information finns i: Mathilda Annerstedt, *Nature and Public Health Aspects of Promotion, Prevention, and Intervention* (doktorsavhandling, Sveriges lantbruksuniversitet Alnarp, Fakulteten för landskapsarkitektur, insitutionen för arbetsvetenskap, ekonomi och miljöpsykologi, Alnarp, 2011)

¹³ John Jeavons, *How to Grow more Vegetables than you ever thought Possible on Less Land than you can Imagine* (Berkeley CA, Ten Speed Press 1982)

- × Småskalig anaerob anläggning med biobränsle för produktion av kombinerad elektricitet och värme till växthuset.
- × Ett system för "living machine", en imitation av ett våtmarksekosystem för behandling av avloppsvatten på plats och produktion av vatten för bevattning.
- × Infrastruktur för maskkompostanläggningar för ökad grödseproduktion.
- × Takanläggning för bikupor som gynnar pollinationen i området.
- × Möjlighet till vattenbruk och/eller hydrokultur. En ny trend är en kombination av systemen med fiskodling och grönsaksodling i återvunna behållare.
- × Anläggningar för svampodling i källare med kaffesump från de boende i huset.
- × Utrymme för livsmedelsförvaring och större förvaringsutrymmen i bostäderna.
- × Underhållsrutiner i relation till det nordiska klimatet med kurser i säsongsbaserad konsumtion.
- × Ett grönt bälte längs gränsområdet till det intilliggande naturreservatet där ytterligare odlingsmöjligheter kan främjas genom trädjordbruk.
- × Återkommande kurser och aktiviteter som främjar lokalt engagemang.
- × Lokalt café med utbud av säsongsbaserad mat från områdets odlingar.
- × Ytor avsedda för marknad med försäljning av lokala produkter från områdets odlingar. Detta kan också stimulera ekoturism bland invånare från andra stadsdelar i Stockholm.

Det större diagrammet visar alla system som fungerar tillsammans i ett symbiotiskt och cirkulärt förhållande. De mindre diagrammen visar systemen vart och ett för sig: tekniskt, socialt, ekonomiskt, politiskt och miljömässigt system.

Det finns flera fördelar med en modellbaserad infrastruktur, däribland hälsa (mat, motion, frisk luft, psykisk hälsa), livsstil (odling och utomhusvistelse) och säsongsbaserad konsumtion (kortare livsmedelstransporter). Dessutom finns det socioekonomiska och kulturella



fördelar med en lokal identitet, lokala arbetstillfällen (till exempel försäljning av lokala produkter, kurser i odlingstekniker och nytt viceutbud), kurser som leder till ny aktivitet och dessutom potentiellt minskad lokal brottslighet.

Åtgärderna är inte nya men att kombinera dem i ett symbiotiskt förhållande med politiskt stöd i en förnyelseprocess skulle vara en ny och innovativ praktik. Byälvsvägen skulle kunna bli ett pilotprojekt för en sådan form av förnyelse, livsstil och boende.

Fördelarna är uppenbara men vilka potentiella problem kan en utvecklingsstrategi som denna innebära? Det största problemet är lagar och regleringar, särskilt på området för folkhälsa. Lagstiftningen kan förhindra användning av bevattningsvatten inom urban matproduktion med anledning av föroreningsrisken. Andra områden är livsmedelssäkerhet eftersom det finns stränga regler för distributionen av mat och konsumtionen av urban mat. Det sätter stopp för lokala matraditioner enligt slow food-filosofin. Hälsorisker på grund av markförurening från industri och transporter är också ett vägande motargument men på det området har man forskat fram möjliga lösningar. En enkel metod är till exempel att odla maten i odlingslådor.¹⁴ Även lagstiftning gällande markanvändning kan utgöra hinder. En möjlig lösning är att man gör lagen mer flexibel med utrymme för att ta hänsyn till enskilda fall utifrån en insikt om fördelarna med ett systembaserat flöde.

Andra mindre problem utgörs av ekonomiska faktorer, till exempel ekonomisk vinning, höga startkostnader och markanvändningskostnader. De tekniska problemen är uppenbara om det saknas befintlig infrastruktur för odling eller cykliska återkopplingsprocesser. I nordliga områden tillkommer säsongrelaterade faktorer som förhindrar odling året om. Detta kan åtgärdas genom innovativa lösningar för inomhus- och utomhusproduktion. Ibland kan utrymmesbrist vara ett problem men så är inte fallet på Byälvsvägen.

Organisationen Urban Farmers i Schweiz har forskat på enkla lösningar på en del av problemen. De rekommenderar att man inleder en dialog med deltagarna på ett tidigt stadium för att hitta sympatisörer. Det är mycket viktigt att hitta beslutsfattare på både politisk nivå och

14 Herbert Girardet, *Cities People Planet: Urban Development and Climate Change*, (England UK, John Wiley & Sons, 2008), s. 252

företagsnivå som vill stödja arbetet. I en sådan dialog är det viktigt att framhålla exempel, prototyper och pilotprojekt som visar att projektet är ekonomiskt, socialt och politiskt möjligt att genomföra på platsen.¹⁵ När man har kommit så långt är utmaningen att se till att systemet blir i så hög grad självreglerande och självförsörjande som möjligt. Den viktigaste ingrediensen för att systemet ska fungera friktionsfritt är en engagerad lokalbefolkning.

Fallstudier

Följande urval av exempel kan fungera som stöd och inspiration i förnyelsen. Fallen är indelade i kategorier efter de lokala förutsättningarna: odling på stadsnivå, på marknivå, i växthus, integrerat i en byggnads infrastruktur (tak, väggar, fasader, fönsterbrädor och balkonger) och inomhus (källare). Andra exempel visar kreativa sociala initiativ med tvärvetenskapliga projektgrupper, slutna kretslopp och politisk finansiering.

På stadsnivå: Eetbaar Rotterdam, stadsjord och CPUL

Sedan 2007 har en grupp Rotterdambor engagerat sig under namnet *Eetbaar Rotterdam* (på svenska "Ätbart Rotterdam") med syftet att bygga upp en stadsodlingskultur i staden. Gruppens mål är att matens kretslopp på nytt ska begränsas till staden och de organiserar informationsaktiviteter bland invånarna om varifrån maten kommer och vad det kostar att producera den. De föreställer sig stadsodlaren i mitten av kretsloppet: en yrkesjordbrukare som kombinerar odlingskunskap med kunskap om stadsodlingens möjligheter och begränsningar. Gruppen har en bakgrund i arkitektur, stadsplanering, hälsovetenskap, livsmedelsvetenskap, industriell ekologi, agronomi och jordbruk. Hittills har de väckt intresse för jordbruk som yrke bland invånare, företagare och stadsplanerare. De har blivit en oberoende källa till kunskap och expertis om stadsodling. Gruppen har producerat flera publikationer, utbildningsprojekt, föreläsningar och framträdanden i media och påverkat politiska beslut på flera nivåer. Våren 2012 startade de en professionell urban bondgård med kycklinguppfödning

15 <http://urbanfarmersbox.ch/>

och odling av fisk, grönsaker och frukt på en tidigare bangård i Rotterdams hamn.¹⁶ Projektet är ett bra exempel på hur viktigt det är med rätt politiska, utbildningsmässiga och sociala strategier när man ska introducera en ny matkultur i ett område.

Ett liknande projekt i Sverige med verksamhet inom stadsjordbruk och politik är *Stadsjord*. Projektet grundades i Göteborg av Niklas Wennberg med målet att främja stadsodling, lokalproducerad mat och grannsamverkan. (BILD 6A, 6B) Det primära målet var att skapa en hållbarhetskultur av den gamla skolan med praktiska metoder samt att främja och undervisa om stadsjordbruk. Ett särskilt intressant projekt var småskalig grishållning på ett skrotupplag intill en byggarbetsplats. I samarbete med planerare arbetade man fram en säker och symbiotisk lösning för djurhållning i staden. I projektet ingick en riskanalys för grisarna i försäkringssyfte, vilket visade att djurhållning är hållbart i stadsmiljö.¹⁷ Alla Stadsjords projekt präglas av en utbildningstanke och man organiserar ett flertal kurser för att föra en aktiv dialog om stadsodling och inspirera fler att engagera sig. Det är en viktig ingrediens eftersom det behövs eldsjälar som driver initiativen. Flera lyckade initiativ har utvecklats inom projektet sedan starten 2009.

CPULS, Continuous Productive Urban Landscapes, är ett koncept för stadsplanering som grundades år 2000 och utvecklades av Andre Viljoen och Katrin Bohn med London som bas. Konceptet består av en modell för hur man kan konstruera nätverk inom staden i form av sammanlänkade mångfunktionella öppna ytor. På så vis kan stadsodling bedrivas längs gångvägar och cykelbanor som långa korridorer av biologisk mångfald. Det är en modell för hållbar urban infrastruktur som kompletterar, stöder och bygger vidare på den befintliga byggda miljön som en resiliент ekologisk modell för mat, biologisk mångfald och cykeltransporter. Idén innebär inte bara ekologiska fördelar utan förbinder dessutom bostadsytorna med staden och främjar medborgardeltagande.¹⁸ Förslaget visar hur viktigt det är att koppla stadsodlingsinitiativ i olika områden till en ny typologi för urban ekoturism.

¹⁶ <http://www.eetbaarrotterdam.nl>

¹⁷ [http://stadsjord.se/](http://stadsjord.blogspot.com/)

¹⁸ Andre Viljoen, Joe Howe, Katrin Bohn (ed), *Continuous Productive Urban Landscapes: Designing Urban Agriculture for Sustainable Cities*, (UK, Architectural Press 2005)



Hästa Gård är en 4H-gård på ett fält mellan Stockholmsförorterna Husby och Akalla. Den drivs av grundarna och jordbrukarna Oloph Fritzén och Jenny Olofsson.¹⁹ (BILD 7) Gårdens läge och närhet till staden ger möjlighet till peri-urban odling i anslutning till bostadsområden där invånarna är viktiga deltagare. Gården har flera andra fördelar: närhet till Stockholms centrum, lättillgänglighet, en lyckad modell för permakultur, viktiga samhällsrelationer och en välfungerande affärsmodell. Målet med permakulturodning är att skapa ett ätbart ekosystem som fungerar i symbios med den omgivande miljön. Bakom begreppet står bland annat Bill Mollison, David Holmgren och Masanobu Fukuoka som utgår från en tanke om att låta naturen själv sköta jobbet. På gården kombineras djurhållning (kor, grisar, hönor och får) med grönsaksodling, både utomhus och i växthus (bland annat potatis, tomat och vete). Gården har också upprättat nära förbindelser med lokalbefolkningen och företaget för ett så kort kretslopp som möjligt. Grannarna hjälper ofta till i arbetet och de lokala marknaderna skänker sitt bioavfall till gården så att det kan användas som gödsel. Alla produkter säljs och serveras i Hästa gårds affär/café. Inkomster under lågsäsongen kommer från uthyrning av traktorer-na för snöröjning och djurskötsel från kalvstadiet.²⁰ Hästa Gård är ett aktivt exempel på urban metabolism. Man utvidgar sin miljövänliga funktion genom att arbeta i ett socialt och slutet kretslopp genom att skapa en lokal ekonomi, omvandla avfall till resurser och lära ut odlingstekniker till grannarna.

Trädgårdsprojektet *Ecobox* som har tagits fram av Atelier D'Architecture Autogeree i området La Chapelle i Norra Paris är en förebild för andra stadsodlingsinitiativ som drivs av invånarna själva på ytor mellan bostadsområdena. Projektet kan ses som en kritisk plattform för urban dialog/debatt där man skapar ett utbyte av tankar och kunskap utifrån deltagarnas perspektiv. Serien av självstyrda tillfälliga odlingsplatser i återvunnet material togs i bruk 2001. Rygggraden i projektet var att upprusta missköta och underutnyttjade ytor genom att omvandla dem till ytor för matproduktion och gemensam aktivitet. Projektet visar hur olika urbana livsstilar kan samexistera genom ge-



¹⁹ <http://blogs.sweden.se/blog/tag/hasta-gard/>

²⁰ <http://jarva.wordpress.com/>

mensamma rum som man kallar "relationspaces", vidareutveckling av det starka lokala engagemanget och en insikt om att invånarna måste ha makten över det egna rummet. Till slut blev projektet självgående och drevs helt och hållet av invånarna själva medan de "professionella" i stället medverkade som deltagare.²¹

Pépinière de la Rosée grundades av frivilligorganisationen Eco-Innovation i stadsdelen Anderlecht i Bryssel och arbetar med mellanrummen i det urbana landskapet. (BILLD 8A, 8B) Projektet startades inom ramarna för ett statligt program i syfte att upprusta en utsatt stadsdel med stora motsättringar och våld.²² Den statligt ägda marken på 700 kvadratmeter är en före detta sopdipp som omvandlades till ett blomstrande stadsjordbruk i händerna på Federico San Bonifacio, själv bosatt i området. Inom ramarna för projektet kunde lokalbor och organisationer hyra en odlingslåda på en kvadratmeter för 10 euro per år inklusive verktyg, frön, planter samt råd och hjälp. I den välorganiserade miljövänliga affärsplanen ingick dessutom sponsrade behållare för fruktträd för 100 euro per år, försäljning av växthusodlade växter och produkter från den professionellt skötta delen av odlingarna. Projektet ledde till att brottsligheten i området minskade betydligt, att underutnyttjad mark kunde användas till lokal matproduktion och att ungdomar i området inspirerades att delta som frivilliga. Projekt av den här typen är dels positiva förnyelsen av en stadsdel, dels en god investering för kommunen som kan finansiera effektiva gemenskapsprojekt i stället för resultatlös brottsbekämpning. I ljuset av detta är framgångarna med projektet ovärderliga.

Ett annat exempel på stadsodlingsprojekt i mellanrum heter *Wasteland* och startades 2009 av konstgalleriet Nadine. Projektet ligger på en innergård i närheten av konstgalleriet mellan bostadshus i centrala Bryssel. Nadine är ett tvärvetenskapligt konstprojekt där miljömedvetna konstnärer fick utrymme att experimentera med nya system och konstformer i syfte att ta fram stadsrum med bättre ekologisk resiliens. (BILLD 9) Projektets namn anspelar på förbisedda och underutnyttjade urbana rum som blir skrotupplag. Konstnärerna ville ge



Pépinière de la Rosée. Foto: Anna Maria Ortu.



Jordbrukaren Federico med lokalbor. Foto: Anna Maria Ortu.

21 <http://www.urbanartactics.org/projects/ecobox/ecobox.html>

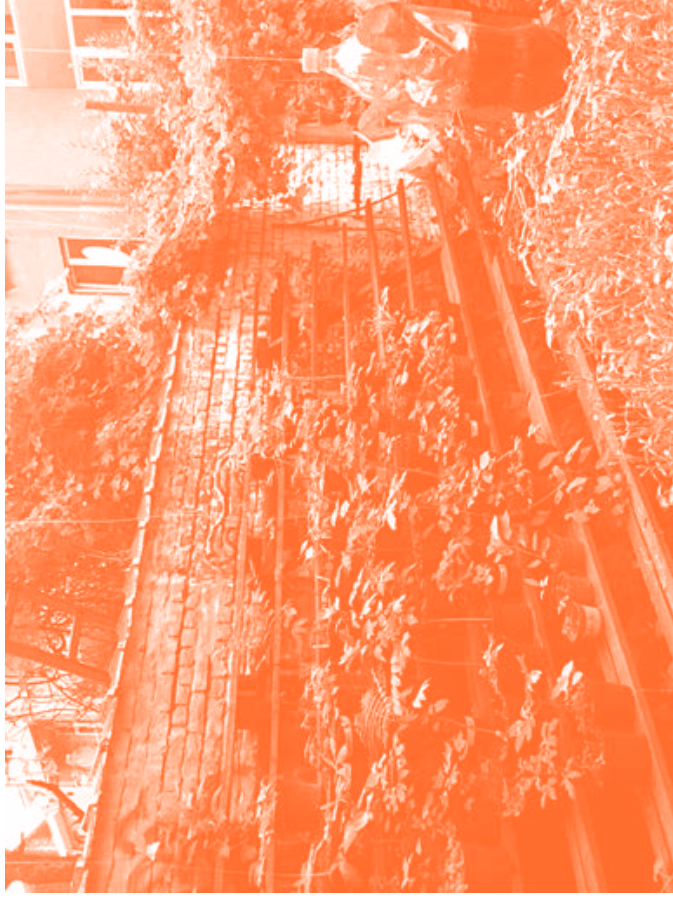
22 <http://www.eco-innovation.net/blog/la-pepiniere-clips/>

platsen nytt liv som urban trädgård och med hjälp av experimenterande verksamhet få invånarna att intressera sig för trädgårdsarbete. Genom kreativa idéer och kunskaper arbetade konstnärerna fram lösningar som på olika sätt skulle få invånarna att återerövra sitt gemensamma rum med ätliga växter. Konstnären Trudo Engels anlade flera vertikala salladsträdgårdar som ett test av salladernas ekologiska resiliens. Lina Kusate startade en plantskola med modeller för samodling och permakultur. Christina Stadlbauer bidrog med urban biodling – från fyra bikupor skördade hon tio kilo honung det första året. Bernard Leroy skapade ett hem för omhändertagna träd med små förutsättningar att växa på plats. Träden hittade han i sprickor i asfalten på studieavdring med en grupp barn. Wasteland har som tradition en gemensam årlig skördefest då mellanrummet fylls av liv.²³ Projektet är ett bra exempel på kulturens viktiga roll i stadsodlingsinitiativen.

I växthus: De Kas. UrbanFarmer Box

De Kas i Amsterdam är ett ombyggt produktivt växthus med kombinerad restaurang i anslutning till odlingen. Växthuset från 1926 var en före detta plantskola som hade tillhört Amsterdams kommun och skulle egentligen rivas men räddades av kocken Gert Jan Hegeman 2001. Hans avsikt var att göra om den övergivna byggnaden till framgångsrik ekologisk restaurang.²⁴ Ingredienserna i projektet är imponerande: förnyelse, produktivt växthus, ekologisk restaurang, grönt företag, lokala arbetstillfällen osv. Projektet visar att en kombination av experimentella och miljövänliga företagsidéer kan lyckas både ekologiskt och ekonomiskt. Sådana projekt får dessutom funktionen av prototyp för nya former av urbant liv, utbildning och företag, vilket ger inkomster till lokalsamhället, främjar en stadsodlingspolitik och skapar medvetenhet om stadens matförsörjning.

Ett annat växthusprojekt är *UrbanFarmer BOX*, en mobil stadsodling i behållare. Här kombineras tekniker inom hydrokultur och vattenodling för odling av mat, växter och fisk.²⁵ (BILD 10) De båda teknikerna fungerar symbiotiskt i ett slutet kretslopp som imiterar natu-



²³ <http://nadine.be/old/wasteland/over-wasteland/wasteland-overview>

²⁴ <http://www.restaurantdekas.nl/>

²⁵ <http://urbanfarmersbox.ch/>

rens metaboliska struktur. Systemet är inrymt i en återvunnen 20 fots container som är öppen upptill så att odlingen kan ske i ett modulsystem. Det fungerar året om och kan användas på flera platser, bland annat tak, outnyttjade rum/mellanrum eller på industritomter som inte lämpar sig för odling på grund av markföroreningar. Varje container har utrymme för odling på 60 kg fisk och 200 kg grönsaker under odlings säsongen, vilket är tillräckligt för att försörja en familj. De främsta fördelarna med projektet är att man återvänder gamla containrar och att odlingsenheterna är flexibla och mobila. En sådan återanvändning av befintliga parametrar för ett nytt syfte representerar ett perspektivskifte inom förmylesepraktiken.

Integrerat i byggnadens infrastruktur: Brooklyn Grange. 100 Hus

Byggnader kan också bli produktiva landskap, genom både vertikala och horisontella odling. Från de senaste åren finns flera intressanta exempel på takodling i innerstäder, bland annat Brooklyn Grange i New York och 100 hus vid Hornstull i Stockholm.

Brooklyn Grange ligger på taket till ett sexvåningshus från 1919. Det är en 3 720 kvadratmeter stor ekologisk gård som ritats och byggts av Bromley Caldari Architects och grundades av Ben Flanner (odlingsansvarig), Gwen Schantz och Anastasia Cole. Projektet startade våren 2010 med den första lyckade odlings- och försäljnings säsongen. Gardens ursprungliga mål var att förbättra den lokala tillgången på färska grönsaker, integrera stadens invånare i livsmedelskedjan och göra stadsodling till en framkomlig karriärväg, företagsidé och inkomstkälla. Gardens inkomster kommer från skörden som säljs till lokalbefolkningen och företag i omgivningen. De ekologiska produkterna är bland annat örter, rotfrukter (till exempel rödbeta, morot och rädisa), paprika, fänkål, sallad, kål, bönor och flera sorters tomater. Gröna takodlingar bidrar dessutom till att förbättra luftkvaliteten och mikroklimatet i staden, till folkhälsan och genetica livskvaliteten.²⁶



²⁶ <http://www.brooklyngrangefarm.com/>

Odlingsprojekt inomhus: fönsterodling

Fönsterodling är en teknik som bygger på hydrokultur och möjliggör inomhusodling av grönsaker och örter året om. Idén skapades 2009 av Britta Riley och Maya Naya i Brooklyn men har spridits över hela världen och används i allt från privata bostäder till skolor, kontor och offentliga myndigheter.

Med hjälp av fönsterodlingssystemet kan växterna växa året om med naturligt ljus när sådant finns och ljus från artificiella ljuskällor under årets mörka månader. Principen bygger på att man odlar produkter i ett slutet system för hydroponisk odling med tillskott av ekologisk flytande växtnäring. Temperaturregleringen åstadkoms med hjälp av bostadens befintliga klimatsystem. Odlingen sker vertikalt i återvunna 1,5 liters PET-flaskor med leaculor, plastslangar och en billigare akvariepump. (BILD 11) Det enda som inte går att odla i systemet är rotfrukter eftersom det fungerar utan jord. Systemet är småskaligt men har ändå lett till en ökad medvetenhet om matproduktion och ett internetforum där entusiaster kan utbyta idéer.²⁷

Kreativa sociala initiativ: Urbanibalism och "Pop-Up Park"

Kreativa sociala lösningar, ofta i händerna på konstnärer, behövs för att få samhällen att mötas och skapa stöd för stadsjordbruk. Två sådana projekt är Urbanibalism och Pop-Up Park, båda med bas i Amsterdam.

Urbanibalism är en kontinuerlig konstnärlig plattform som grundades 2007 av Wietske Maas och Matteo Pasquinelli.²⁸ Gruppen beskriver sin uppgift som "att utforska staden som ätbar livsvärld och naturligt landskap med anknäring till stadens spontana ekologiska liv". Målet är att använda åtbara ingredienser från staden i recept som är gratis för alla och därigenom förena olika grupper. Ett exempel är en kokbok med recept på växter som man hade hittat i Amsterdam. Inom projektet möttes marginaliserade invånare och andra medborgare över en måltid som skördats från det gemensamma stadslandskapet. Kort sagt hittar gruppen kreativa former för att sprida kunskap och infor-

²⁷ <http://www.windowfarms.org/>

²⁸ <http://www.urbanibalism.org/>



Fönsterodling på Kulturhuset.
Foto: Anna Maria Orru.

mation om matsystem och matkultur i de lokala sammanhang där de verkar. De urbana projekten ritat upp nya relationer mellan människor, kulturer, livshistorier och ekologier.

Projektet Pop-Up Park genomfördes 2011 i en enorm outnyttjad trädgård i västra Amsterdams under en endagsfestival med praktiska seminarier. Under seminarierna omvandlades det outnyttjade området till en offentlig matpark som formgavs av de lokala invånarna.²⁹ Sturdion FoAMs medlemmar i Amsterdams, Cocky Eek och Theun Karelse, utvecklade processen, valde ut ett expertlag och formgivningskriterier för vad som skulle bli en permanent park. Under festivalen hjälpte ekologiska experter de lokala invånarna att formge sin ideala stadsdelsträdgård. Resultaten följdes upp med fysiska ingrepp i parken utifrån valda teman. I den gemensamma processen fanns ett stort lokalt engagemang från start där deltagarnas fortsatta medverkan berodde mycket på känslan av delaktighet.

Slutna kretslopp och innovativ politik: Wien och Food Policy Councils

En viktig insats för en urban metabolism är att skapa en bra infrastruktur för ett sluret kretslopp. Sedan 1988 har staden Wien inrättat en separat insamling av bioavfall med stöd från samtliga politiska partier. De inrättade en gemensam avfallspolitik för hela staden med avfallsavgifter för alla invånare, vilket har gett konkreta resultat. 34 000 ton kompost från 43 000 ton insamlat bioavfall. 20 000 ton kompost används som gödsel i peri-urban ekologisk odling och resten fördelas på lokalbefolkningen. År 2000 komposterade staden över 90 000 ton vilket innebär en besparing för staden på över 10 miljoner dollar om året (cirka 66 miljoner kronor). Detta är en storskalig modell som ser avfall som en resurs, för både stadens invånare och kommunen.³⁰

I nuläget är det endast ett fåtal Food Policy Councils i världen som spelar en aktiv roll för gemensamma odlingsprojekt, stadsjordbruk, program för livsmedelssäkerhet eller matmarknader. Stiftung Interkultur i Tyskland är till exempel den enda organisationen som ger

stöd för idén om stadsdelsträdgårdar på nationell nivå. Portland food policy council arbetar efter mottot "för hjärtat, själen, jorden och plånboken" i samarbete med jordbrukare, planerare, mathjälpare, kockar, miljöaktivister, statliga myndigheter och medborgargrupper i flera gemensamma odlingsprojekt. Andra organisationer finns i Toronto, Vancouver och Berkeley.³¹ Men så vitt jag vet finns det ännu inte någon övergripande lagsättning för stadsplanering som direkt behandlar mat och arkitektur. Ett citat från organisationen World Future Council ger stöd för detta: "för att inrätta stadsjordbruksprogram behöver vi ett politiskt ramverk. Forskningen visar att inget land hittills har tagit fram och tillämpat sådana direkta politiska åtgärder."³² Här finns en möjlighet för miljöprogrammen att ligga i framkant på området för stadsförnyelse i politik och praktik.

Slutsats

Våra matsystem är intrikata system som innehåller flera parametrar, bland annat kultur, klimat, geografi, livskvalitet och njutning. De instrument som behövs för att åstadkomma ett paradigmskifte inom matkulturen hittar vi i en kombination av innovativ politik och stadsreglering, teknisk utveckling, ekonomisk självförsörjning och förändrade individuella beteendemönster.³³ Vi har sett projekt och exempel där man genom att imitera naturliga system med en holistisk metod skapar en urban metabolism. Med hjälp av ett systemtänkande på mikro- och makronivå har man utvecklat innovativa lösningar som ökar stadens ekologiska resiliens. Det går att styra våra matkulturella val men då behövs en arkitektonisk kontext med en fungerande systembaserad infrastruktur som stöd. När vår mat produceras där vi bor kommer vi närmare våra måltider och matvanor och blir mer medvetna om dem. En balans uppstår där vi lever närmare både naturen och varandra.

Byålvägen och andra stadsdelar som står inför en upprustning

²⁹ http://fo.am/pop_up_park/

³⁰ Herbert Girardet, *Cities People Planet: Urban Development and Climate Change*, Earthland UK, John Wiley & Sons, 2008, s 208–209

³¹ Peter Newman and Isabella Jennings, *Cities as Sustainable Ecosys-*

³² World Future Council, Herbert Girardet and Dr. Axel Breck, *Cultivating the Future: Food in the Age of Climate Change*, Hamburg, Germany (2009)

³³ Herbert Girardet, *Urban Metabolism: London Sustainability Scenario*, (paper presented at ABSF Henderson Colloquium, Factor 10 Eneineerine for Sustainable Cities, Cambridge, UK 10–12 Julij, 2006)

skulle kunna vara aktuella för en sådan grön strategi för stadsförnyelse. Genom att uppmuntra kollektiva levnadssätt i den privata miljön främjas en ny matkultur. Det skulle ge liv åt staden och förbättra bilden av miljöprogramsområdena, på samma gång som man värnar om miljön och ökar stadens ekologiska resiliens. Sådana metoder ger städerna ett skydd mot framtida chocker. Den förutspådda uppgången i priser på olja och mat i kombination med en hejdlös klimatförändring ger oss alla argument vi behöver för att utforska nya innovativa strategier.

catalogue

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Platform entity	encounter	Methodology & Format	Papers	Research Question
Phase 1				
Gröna Linjen	Safari 1	Safari survival kit booklet, different embodied immersions and experiences of urban farming	Paper 1 & Digest Series 01	What is an embodied practice in architectural urban making that can instigate spatial agency and deeper environmental commitment both in individual and collective forms?
	Safari 2			
	Urban CoMapper	Urban CoMapper smart phone Tool for urban agriculture	Paper 1 & Digest Series 02	
Living Archives	Instant Cartography	Getting Lost, Finding transient guide, Hand-drawn Maps	Digest Series 03	How can the act of cartography create new forms of social engagement and local know-how? As well as transfer a knowledge to the local community by asking the way?

Table – Research Interventions, platforms, methodology, papers and research questions

Gröna Linjen

The Gröna Linjen is a vibrant transdisciplinary platform that partakes around the theme of urban farming activities in Stockholm.¹ The name for the platform has several identifiable meanings. It is a geographic configuration for the study. The platform is named after Stockholm's subway green line #17, coincidentally also the route where most urban farming initiatives are taking place in Stockholm. Its intentions to depict urban food in creative and engaging ways:

- to introduce locals in Stockholm to the various urban farming sites that are present, or could be present in potential underused urban spaces
- to start up urban discussions and create a 'space/place' for the discourse on the challenges of growing food in the city
- to introduce unique methods for critical cartography in same interventions and weave together the different urban farming initiatives along the route and provide them with 'a place on the map', thus introducing the urban farming community to one another.
- to provide artists the opportunity to be engaged in the urban gardening movement
- to highlight the both opportunities and barriers provided by linking art, science, practice and research in creative and engaging manners
- to provide citizens an alternative channel to participate in the urban design process that are site specifically situated and mapped using the Urban CoMapper tool
- to contribute to important research within the urban food movement

We set up a platform on various scales: virtual, digital and real-life. One scale included real-life presence on different sites and in the soil, whilst another was virtual in social media; the group established a Facebook page which is still expanding as people discover the initiative. The digital platform is discussed via the Urban CoMapper tool in this section. The intention with finding different channels for collaboration between the urban food topic and inhabitants, expert and citizens, and to find different methods for disseminating the challenges addressed. These methods, were to explore different ways of embedding the body with the discourse and context. This included artists on the core team who both work with gardening as a medium/exhibition/intervention space. Ulrica Jansson works with place-specific interventions in public space focusing on sustainability, whilst Malin Lobell works with a focus on participatory art, public art, and political matters surrounding urban food scene. The potential included the ecological resources gained from gardening, but also the social and knowledge gained from all the different perspectives and methods that were present. The aim was to investigate the various forms of agency that could occur with presenting such a platform, engaged and hands-on.

The Gröna Linjen staged two interventions that looked into the initial concepts of digital and bodily cartography called safaris; safari 1 (June 15, 2014) and safari 2 (September 21, 2014).

¹ The core of the platform was started by six persons: (in alphabetical order) Ulrika Flodin Furås (journalist), Mattias Gustafsson (landscape architect), Ulrica Jansson (artist), Malin Lobell (artist), Anna Maria Orrù and Christina Schaffer (geographer).

Safari 1 and 2

The Gröna Linjen platform organized two urban safaris which served as opportunities to explore the digital and bodily cartographical explorations. Around 40 participants embarked on the overland expeditions intended to foster interest and know-how about urban farming, encourage a tactile engagement with the neighbourhood's edible fabric, knit together existing farming initiatives, as well as showcase potential sites for gardening. The body was engaged as the main interface to explore diverse cartographical methods from an organoleptic perspective, meaning that the different events staged intended participants to activate their senses engaging with soil, body and stomach. The immersions presupposed that the capacity of such green spaces stimulated the senses leading to a heightened awareness of 'food behaviours,' therefore the aim had been to provide strategic engagement with the sites combining location with sensory-based experiences. Guiding participants on an experience of this kind, introduced them to a growing community. The experience was a creative activity; it overlapped sustainable living with garden play, and composed sustainability into a pleasurable encounter.

Both safari interventions traversed through Stockholm on a bike-riding tour set along an agenda of garden visits. The intention was to activate the body on a number of levels: bike riding, eating, hands in the soil, tasting, discussing, manoeuvring etc. The objective of both safaris was to highlight the breadth of urban farming variants in Stockholm and to find potential areas through engaging a diverse audience on the expeditions: citizens, planners, built environment expert and student. The project's audience included:

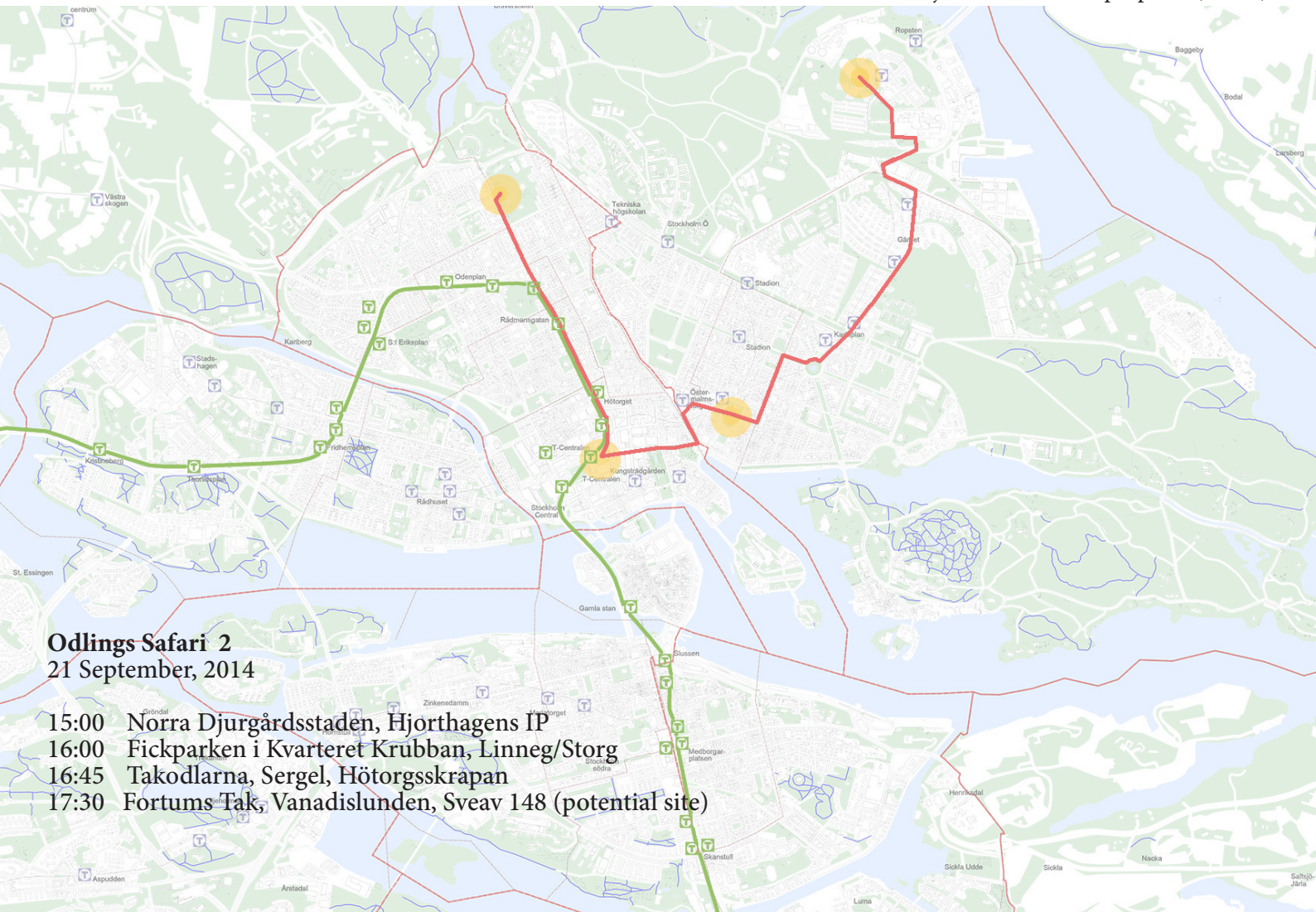
- Stockholm's gardening stewards that started various urban farm sites that were visited.
- Citizens interested in gardening along the green subway line in Stockholm
- The passive citizen group, the one that passes-by and becomes curious.
- Planners and policy makers involved in the open green strategy plan for Stockholm. My main Contact has been Katarina Borg – responsible for 'The Walkable Green City report' (Stockholm Stad Stadsbyggnads Kontoret 2013)
- Municipality of the various counties which the green subway line#17 transverses. The safari was also attended by planners from Nacka - Thomas Magnusson, Stockholm - Max Goldstein and Sodertalje – Jordan Lane
- Real estate managers working together with Fortum utility to discuss value of the land with urban gardening potential. This was attended by Anna Lidberg from Fortum, and My Pensalu and Britt Mattsson from Stadsdelsförvaltningen Norrmalm

The aim was to invite interrogation of what we eat and where our food comes from, while encouraging a certain intimacy to emerge with the urban landscape and a re-evaluation of its seasonal rhythms. The safari was followed by interviews with six individuals about their experience and use of the smart phone app (available upon request).



Gröna Linjen Safari 1 route proposal (above)

Gröna Linjen Safari 2 route proposal (below)





Gröna Linjen Safari 1

© Photo credits for © images: Ulrika Flodin Furås, other: Anna Maria Orrù 2014



Illustrative survival guide booklet

© Photo credits: for first left image Ulrika Flodin Furås, other: Anna Maria Orrù 2014



Invited artists: Malin Lobell's exhibition on political plants, Andrea Hvistendahl 'No Waste Cooking' performance, and Ulrika Janssons gardening art discussion



Gröna Linjen Safari 2

© Photo credits: Anna Maria Orrù, Malin Lobell 2014



Preparations at potential site inspection



Invited artists: Malin Lobell foraged map and the Sunshine Socialist Cinema

© Graphic credits: Malin Lobell. Photo credits: Anna Maria Orrù, Malin Lobell 2014

Urban CoMapper – a digital tool

The digital cartography interface was a smart phone app designed to explore the urban green potential of urban farming initiatives in existing and potential sites. The tool was developed in collaboration with PhD colleague Hyekyung Imottesjo, however with diverse research intentions. Imottesjo's research focussed on mixed and compact cities, whilst mine focused on urban green potential but the design of the tool and collaboration with other developers was joint. The tool has a beta web-based setting where all the gathered data can be stored and used in the planning process or by citizens to find sites for gardening. The intention is to build a virtual platform to connect citizens, the urban environment and experts through an interface for critical mapping. In this regard, the tool was intended to provide an option for spatial agency to begin virtually. Via their devices, participants can effectively contribute to the urban green planning process as well as to the expanding urban farming movement. The tool charts existing and potential sites for gardening via a real-time comprehensive survey and aims to extract organoleptic criteria and qualities of such spaces.

The interface asks users to log locations and report their perceptions according to several interlinking factors for data collection. These factors include:

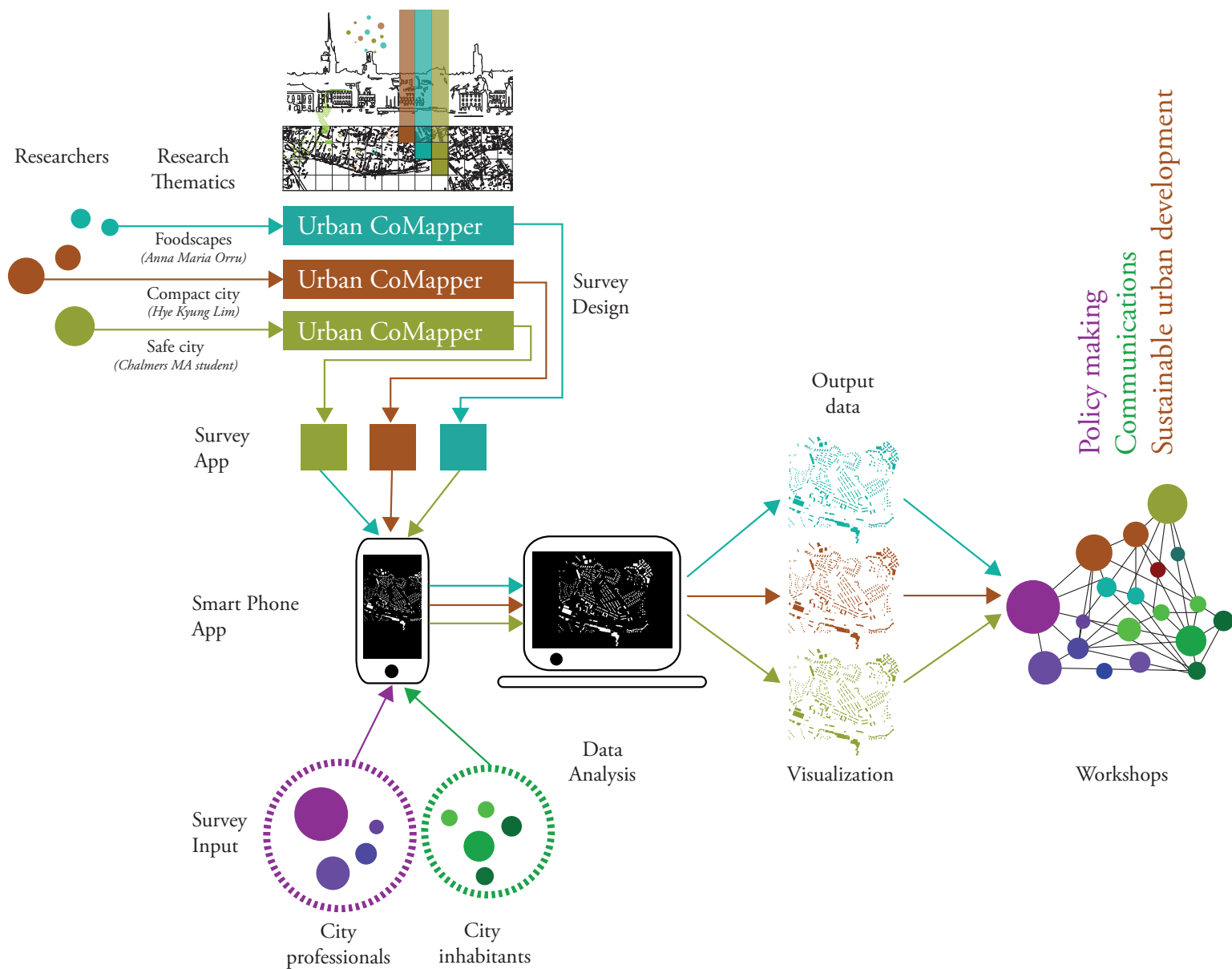
- Size – the size of existing sites and location options for potential gardening sites
- Style – the existing design elements of the site, such as soil options and other built elements, along with a sensorial description using visual and audio uploads
- Site conditions – elements such as hard or soft landscaping, surface elements, zoning areas and traffic conditions
- Produce/ecology – the existing green infrastructure present and biodiversity
- Climatic conditions - sun, wind, and seasonal perception

The creation of the app was intended as a transdisciplinary process with GIS specialists and software designers from Change Makers, utilizes smart-phones and diverse geo-technology to create a versatile urban survey mapping system for a real-time visualization strategy.

The evaluation and testing of the tools took place in two staged Gröna Linjen safaris with several research aims:

- 1- urban dialogue platform between expert and citizen for co-creative mapping
- 2- location based real-time mapping from the sites
- 3- real-time survey and data collection
- 4- relation building between site, citizen and expert and a situated knowledge transfer
- 5- potentiality towards policy and city planning input for productive urban green spaces
- 6- potentiality for urban lifestyle input toward sustainable food behaviour

The initial intention of the app was to understand the role of food in the urban landscape and its eventual agenda-setting into the green space development and planning.



Urban CoMapper diagram showcasing the system's sequencing framework for data
 © Graphic credits: Hyekyung Imottesjo and Anna Maria Orrù 2014

Feedback from interview

From interview comments, some of the important remarks about the interface were important when it came to a bodily contact connect. One interviewer stated that the digital cartography also became a type of dialogue with the space, but it was through observation and the mind, rather than the body. Others felt that the app experienced removed you too much from the group and from the garden, and that you could almost feel a frustration at having to do the 'survey.' Everybody agreed that it was a good idea to create an 'event' around the survey mapping as you could discuss with other people and share answers. For the planners involved, they enjoyed hearing positive voices from participants as they are usually used to receiving complaints from urban inhabitants. They also felt that the information gathered would be very useful for planning as it was information from diverse age groups of people, usually difficult to collect. The event and mapping assignment created a good 'contact' between planners and city inhabitants around a shared purpose. The designers and architects present felt that the app's data made it easier to approach planners with design concepts for green spaces in their projects. They felt that having 'evidence' of crowd-sourced information for unused spaces was important in including such spaces in urban-making. The app also gave opportunity to initiate conversations with spectators during the event and discuss issues in their local neighbourhood. Participants also noted that they enjoyed the lecture and discussion on artist's role in gardening and suggested that such discussions should extend to different topics on urban farming – nutrition, growing certain vegetables, preparing the soil etc. Mapping as a group was crucial because more information could be reflected in dialogue with others than if you were by mapping by yourself. Also, the app could create opportunities for 'staying' in the place longer. (i.e. social activities and taking action). Most of the criticism for the app was on the interface design which is something that could be resolved with more funding and better IT design team.

The app survey itself not only 'takes' information from the user but also 'gives' the user information through the questions it asks. The safari event would have been very different if the app had not been there because it allowed certain topics to arise periodically which would not have come up if the questions had not been asked. Each site conjured up a different focus of questions. It was also not clear how the senses were to be investigated as it was difficult to capture participant's thoughts on this even though there was a 'sensorium questionnaire' in the survey. This could have been because of the forced intention to rationalise with the mind something that was experienced by the body. It leaves me to ask, if the senses do play a vital role in our environmental identity with urban space, how are they to be written about? It was also not clear how the senses were crucial in order to form a collective awareness, nor, whether the bond between the senses is strengthened by acting in a community rather than by oneself? These questions come up because there is not necessarily a logical solution that will emerge but rather, through the artistic experiments, the body will be put in a state of alertness where the senses can be explored further. This became clearer with the bodily choreography for in the Butoh workshop.

AHA Festival

The AHA festival was a platform to investigate the disciplinary borders between art and science in a festival started by the Department of Architecture at the Chalmers University of Technology in 2014. Since 2016, the Department of Physics asked to join our efforts along with the Innovation office at Chalmers in 2017. The festival was intended as a further formation of the artistic identity of the Architecture department which was called for by its head at the time, Fredrik Nilsson, and to provide opportunities for collaboration between the department with other departments at the university given all the fantastic science happening around us.¹ Over the years, the festival has gained a reputation throughout Chalmers University and in 2016 the university's rector, Stefan Bengtsson, asked the festival to keep in mind an artistic identity for the university as a whole. Consequently, it has become an annual event with a total of four festivals by the time this thesis is complete. Each festival has staged a three-day event providing enlightening experiences, staging surprises, new thoughts and displaced perspectives that are meant to lead to alternative modes of thinking about the space between art and science. The festival invited scientists (physicists, historians, mathematicians, medical students, astronomers, engineers etc.), artists (dancers, musicians, composers, painters, poets, chefs) and architects from within academia and practice who reside in these borderlands to explore both art and science as key knowledge building devices. The festival was an extension of the artistic research taking place in the department of Architecture steered by Catharina Dyrssen, whom we also consulted annually on the program design. There have been four festivals to date: ²

- AHA Festival 2014 (October 21-23): the main theme was 'Embodiment', with sub-themes for each day: feet, head, and torso.
- AHA Festival 2015 (November 2-4): the main theme was 'Numbers', with sub-themes for each day: proportions, poeisis, and patterns.
- AHA Festival 2016 (October 31 - November 2): the main theme was 'Uni-Verse', with sub-themes for each day: curiosity, atmosphere and reformulate.
- AHA Festival 2017 (November 20-22): the main theme was 'Autonomy'.

Each 'performer', whether from art or science, is invited to interact with the other field to find possibilities of collaboration through improvised performances. During the festivals, interventions came in the form of lectures, workshops, conversations, exhibitions, concerts, and

1 The AHA festival founders include Anna Maria Orrù and Peter Christensson from the Department of Architecture (Department of Architecture and Civil Engineering), joined in 2016 by Michael Eriksson from the Department of Physics . Other team members have included; Claes Caldenby, Elodie Labonne (Innovation office), Anita Ollár, poet-in-residence Morten Søndergaard, Andrej Slavik, Sigrid Östlund, Hyekyung Imottesjo, Jonathan Geib, Catharina Dyrssen and Anna Kaczorowska. All with generous belief and support from Fredrik Nilsson and interest from Stefan Bengtsson , Monica Bilger, Maja Kovacs and Morten Lund at Chalmers.

2 Short documentaries from each festival can be viewed online. Available at: ahafestival.se

performances. The festival had presence on social media and online through Facebook, Chalmers communication forums and a website (ahafestival.se).

The AHA festival provided an opportunity for staging the corporeal interventions in my research. These included: Paperscapes, Butoh performance, Transit, the Butoh and Body Weather workshops. The 2014 festival theme on 'embodiment' was particular vital for carrying out my research explorations as it dealt with the research thematics. Written by the core team, the theme was described as:

'We turn the searchlight on a fundamental precondition for art and science alike: embodiment as the bedrock of human experience. Not the body as a "thing among things", "a collection of physico-chemical processes" – in the words of the philosopher Maurice Merleau-Ponty – but rather as a "permanent horizon", "a dimension in relation to which I am constantly situating myself". Without such a horizon, both art and science would be devoid of meaning as well as direction. Without such a dimension, neither art nor science would be conceivable as the human endeavors that they inescapably are. And if all this is true of art and science, it is all the more true of architecture. Most at home in the interstices between the one and the other, doesn't architecture boil down precisely to this: a disciplined yet creative exploration of our common state of embodiment?'

The sub-divisions – feet, head and torso – explored how various components of the body contribute to a state of embodiment through the transdisciplinary collaborations. Two international performers, Hamish Fulton and Francesco Careri, were invited to the festival and intentionally put together to see what would come from their interaction. The aim was to see how they would use their traversing skills to move through the Gothenburg landscape. Both performances took place on the Chalmers campus, but sadly each decided to stage their own intervention.

The a UK artist Hamish Fulton uses walking as his artistic medium to explore different areas worldwide documenting them various formats such as photography. He says, 'What I build is an experience, not a sculpture' (McKibben et al. 2002, p. 16). Fulton's art connects to the environment through an embodied method, encouraging a gentle revisit of individual's personal relationships with it. For instance, he may set a walk at a juxtaposition of seasons, observing the interconnectedness between the wilderness and sometimes the urban environment (Fulton, 1999). Francesco Careri, an Italian architect and urbanist, uses walking as a research medium. Careri refers to walking 'an instrument of phenomenological knowledge and symbolic interpretation of the territory, as a form of a psychogeographical reading of it' (Careri 2009, p. 11). Historically, walking has been used as a tool for interpreting landscapes, expanding, mapping and understanding them. Fulton performed indoors at the student union building using a repetitive rhythm of walk to trace the same line continuously for 2 hours. After an hour, I observed that participants went into a 'trance-like' state of meditation and bodily movement. Francesco Careri performed outdoors in the forest perimeter surrounding campus with a troop of orange rain-

coated participants who scaled the wet hillside, found an abandoned piano thrown down the cliff side, and protruded the inner walkways of the neighbourhood nearby. Using bodily experiences to understand a context is similar to methods used in performance studies to study different ways a body can be sourced for comprehending an emotion.



Careri (top row) and Fulton (bottom row) staging their 'walking' interventions
© Photo credits: Milad Abedi

AHA! FESTIVAL

I sing the body electric
The armies of those I love enirth me and I enirth them.
They will not let me off till I go with them,
respond to them.
And discurrpt them, and charge them
with the charge of the soul.

— WALT WHITMAN, "I SING THE BODY ELECTRIC", LEAVES OF GRASS (1891-92)

DAY 1: FEET **DAY 2: HEAD** **DAY 3: TORSO**

The AHA festival investigates the borders between art and science in a three-day event at the Chalmers University of Technology hosted by the Department of Architecture. An international festival intended to provide enlightening experiences, staging surprises, new thoughts and displaced perspectives that lead to alternative modes of thinking about the space between art and science. We invite scientists (physicists, historians, mathematicians, medical students) and artists (dancers, musicians, painters, poets, chefs) who reside in these borderlands and wish to share their vision and work. The key intention is to celebrate both art and science as key knowledge building devices. The festival will take place over 3 afternoons and evenings through performances, workshops, conversations, mingling, concerts, explorations and exhibitions. Let your feet guide you on an artistic walk, your ears provide you with a window to your soul, and your torso will become your sensorial device. These events immerse you further in the festival's theme on 'Embodiment'.

OCTOBER 21-23 | 2014
CHALMERS SCHOOL OF ARCHITECTURE
AHAFESTIVAL.SE

AHA! FESTIVAL

'Blessed be all metrical rules that forbid automatic responses, force us to have second thoughts free from the fetters of self,'

— W.H. Auden, 'Epistle to a Godson'

DAY 1: PROPORTIONS **DAY 2: POESIS** **DAY 3: PATTERNS**

The AHA festival investigates the borders between art and science in a three-day event at the Chalmers University of Technology hosted by the Department of Architecture. An international festival intended to provide enlightening experiences, staging surprises, new thoughts and displaced perspectives that lead to alternative modes of thinking about the space between art and science. We invite scientists (astronomists, historians, mathematicians, tissue-engineering students), artists (dancers, musicians, painters, poets, acrobats) and not least architects, who reside in these borderlands and wish to share their vision and work. The key intention is to celebrate both art and science as key knowledge building devices.

NOVEMBER 2-4 | 2015
CHALMERS SCHOOL OF ARCHITECTURE
AHAFESTIVAL.SE

FREE ENTRANCE!

AHA! FESTIVAL

OCTOBER 31 - NOVEMBER 2 | 2016

ART x SCIENCE

the universe plays
the universe plays airport and air
the universe plays Mozart and milky way
the universe plays multiple sclerosis
the universe plays Socrates and Euripides and Sappho
the universe plays I am you and you are me
the universe plays bluebottle fly and yarrow and Amanita virosa
the universe plays highway and aluminum
the universe plays polar bear and heavy metal
the universe plays vanilla and mint and mutation
the universe plays breast cancer and skimmed milk
the universe plays big bang and beehive and consciousness
the universe plays universe

Martin Desjardins - 'The Universe Plays' (inspired from Darwin)

DAY 1: CURIOSITY **DAY 2: ATMOSPHERE** **DAY 3: REFORMULATE**

A three day festival with a great line of artists and scientists. Seminars, workshops, exhibitions, performances, discussions... Come and be curious with us!

MORE INFORMATION ON AHAFESTIVAL.SE

October 31 - November 2 | 2016
CHALMERS SCHOOL OF ARCHITECTURE
AHAFESTIVAL.SE

FREE ENTRANCE!

AHA! FESTIVAL

NOVEMBER 20-22 | 2017

ART x SCIENCE

THE BASIC DRIVING FORCE IN RESEARCH AS IN ART IS CURIOSITY. JOIN US AND BE CURIIOUS!

For the fourth year, the AHA Festival will be held at Chalmers. Together with scientists and artists we will explore the meeting of art and science over three days full with workshops, lectures, discussions, music and dance performances. Those knowledge-creating experiments are selected to expend the limits of our perception of the world. Researchers, artists, students and everyone interested is welcome to join us, to share experiences and enrich their areas of expertise.

The theme this year is 'Autonomy'. We will explore autonomous systems, the freedom of art and research. Last but not least we will explore where our autonomy as people begins and ends.

NOVEMBER 20-22 | 2017
CHALMERS SCHOOL OF ARCHITECTURE
AHAFESTIVAL.SE

Posters for AHA festivals 2014 through 2017

The Living Archives

In this short intervention, I was invited by the group to contribute with a workshop for their symposium in June 2015 entitled 'From soil to structure.' The event was a two-day programme that looked into the archival memories associated with soil and urban memories. Their driving questions were: What memories sleep in the soil? Who created them? And how are they shared and transmitted, between people and across the intricate layers of space and time?

The frame for the intervention that the symposium organisers, Elisabet Nilsson and Veronica Wiman in partnership with Mitt Odlå, Stena Fastigheter and local residents, asked for was to the leave the site – Leonard terrace. Leonard terrace is a social housing estate on the edge of Malmö which has a vibrant gardening community but you would never guess it. The terrace is located on the raised first floor, off street level, and can only be accessed with a key. It is a true mystery how the gardening initiative became so known, run and started by Mitt Odlå with the intention to handover to residents once interest has been established. The project intervenes with different forms of open data, where new and diverse stories can be expressed, captured and recorded. In this instance, we uncovered the relationships between urban memories, soil, urban gardening actions, people and the city. All the meanwhile, artistically de-constructing cultural heritage of today, and the pathway into the future for our green cities and everyday lives. We archived for the future.

Instant cartography

'can you show me the way to Leonard Terrace?'

The intention of the intervention was about discovery, memory and way-finding. When we understand where something is, how do we draw a map to it for a stranger? Participants were given a google map with directions to a green space 15 minutes' walk from the symposium site. Once they reached their destination, they were asked to throw the map away in exchange for a hand-drawn one from a stranger. They needed to ask a person(s) to draw a map directing them back to Leonard terrace? Maps are not only drawn but they are spoken too, so I asked them to also record in some manner spoken directions or explanations for their route back. Similar to eating, 'showing the way' is a basic human condition. We enjoy making lost strangers find their way again. And in this age of GIS mapping on smart phones we have less excuses to ask for directions with the opportunity to talk to people we do not know (Orrù 2015c).



Finding guides for Instant Cartography
© Photo credits: Living Archives Group (middle image)

Feedback, experiences and observations

Interventions: Gröna Linjen, Safari 1 & 2, Urban CoMapper, Instant cartography (see licentiate)
Motives: Explore embodied practice as modes of critical cartography practice
Main theoretical neighbourhoods: see licentiate (Orrù 2016)

Gröna Linjen: Safari 1 & 2 and Urban CoMapper

Based on feedback and experience, the digital interface Urban CoMapper fell short to understand the transformative nature of these food spaces and the attempt to relate site to food consciousness as originally maintained in the questions. However, when the garden site was experienced simultaneously through movement and the body was activated and involved, the site in question could then become a negotiating surface between the subject and his/her relationship with the environment. This discovery again was difficult to capture solely on the smart phone survey, and became more apparent through interaction and dialogue with participants after the safari and during the interviews (see licentiate appendix Orrù 2016). Furthermore, the digital mapping process generates more profound knowledge when it is part of a staged event and contact with the site being mapped. The process rather than the collected data was again the focal point in these investigations, therefore the final google generated map of output was only to show that the input was channelled to a disseminated form that could be useful for urban planning.

Instant cartography

This mapping intervention became a collected archive of memory tracings - maps with symbols, sketches, conversations, arrows and stories. Instant cartography is a form of mapping agency in which the expert is removed from the mapping process, and the citizen is given the agency to become the mapper of space using their own graphic language. The maps are instantaneous, but the contact with the mapper provides very vital input. Each mapping situation prompted a moment of 'performance acting' and negotiation of way-finding. The participant's script was to pretend to be lost and ask for the way back.

This experiment explored another form of mapping that moved away from the digital and into the bodily, though still through the act of cartography. The purpose behind the cartography exercise was to extend the art of drawing maps into the public domain and trace the path using the body. Anyone can draw a map, not just a professional. The narratives collected along the way are situated and individual with personal knowledge of the place itself. The cartography is not so much about the lines that are drawn, but more-so in the stories that are told and the relations evoked. There is a careful distinction between cartography and mapping that needs to be unfolded. Mapping is observational, whereas cartography is more value laden and opens up to be used as a creative instrument. In this sense, cartography can become an embodied act. You see a map and there is a body drawing it, but there are hardly any maps being generated in this project beside fictional ones.

