Transdisciplinary Creative Ecologies in Contemporary Art within Emergent Processes

Siglinde Langholz Villarreal
University of Maine, siglindelangholz@gmail.com

Follow this and additional works at: https://digitalcommons.library.umaine.edu/etd

Part of the Art Practice Commons, Contemporary Art Commons, Fine Arts Commons, Interactive Arts Commons, Interdisciplinary Arts and Media Commons, Other History of Art, Architecture, and Archaeology Commons, Other Philosophy Commons, Philosophy of Science Commons, and the Visual Studies Commons

Recommended Citation
https://digitalcommons.library.umaine.edu/etd/3085

This Open-Access Thesis is brought to you for free and open access by DigitalCommons@UMaine. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of DigitalCommons@UMaine. For more information, please contact um.library.technical.services@maine.edu.
TRANSDISCIPLINARY CREATIVE ECOLOGIES IN CONTEMPORARY ART
WITHIN EMERGENT PROCESSES

Siglinde Langholz Villarreal
B.A. University of las Americas, Puebla, Mexico, 2009
M.F.A University of Maine, Orono, Maine, 2013

A THESIS
Submitted in Partial Fulfillment of the
Requirements for the Degree of
Interdisciplinary Doctoral Program
(in Fine Arts)

The Graduate School
The University of Maine
August 2019

Advisory Committee:
Dr. Owen F. Smith, Director of Intermedia, Advisor
Dr. Erin Manning, University Research Chair in Relational Art and Philosophy in
the Faculty of Fine Arts at Concordia University
MA. Iain Kerr, Associate Professor for Critical Engagement
Dr. Laurie Hicks, Professor of Art. Dept. of Art
Dr. Michael T. Kinnison, School of Biology and Ecology
This interdisciplinary project-based dissertation presents ideas, events and research about the relations between transdisciplinary and charged contemporary art collaborative practices; conjoining such practices with non-human emergence processes such as slime mold and ant bionetworks. In particular, this research focuses on non-human transversal processes as creative triggerings that in turn activate diverse processual encounters.

In this dissertation perspectives drawn from process philosophy, predominantly the embracing of relational processes, interferences, encounters, propositions are not center on objects, are key foci. My practice and research interconnects what I call “emergent transdisciplinary creative processes,” art ecologies and research-creation practices that are sited between more than human encounters. Such work is carried out by divergent dynamics of co-compositions that span the breaches of my thinking, and informs my explorative practice in each transdisciplinary force-field. The significance of this is that transdisciplinary propositions activate other states between creative practices, and fold in and out into other experimental forms of creativity. By co-emerging non-human and human matrix-movements, collaborative art dynamics, and transdisciplinary nodes my work aims to activate open explorations that contain
and expand relational webs as a means of developing fields of experimentation and modalities of relational processes. The Word matrix here refers to the extracellular network that is not preformed, but formed in conjunction with movement: in other words the path is laid down in the walking.
ACKNOWLEDGMENTS

It has been an enjoyment to work, spread, and activate ideas with all those who have made this thesis possible. I am thankful to my dissertation committee for their support and encouragement during the research and practical phases of this dissertation. My deepest gratitude to Owen Smith my advisor in all moments to accomplish my academic objectives and personal outreach. I am grateful with Erin Manning for her guidance, direction, and help throughout this project. My thanks to Laurie Hicks, Iain Kerr and Micheal Kenison, for their valuable feedback and active participation on the dissertation committee.

Additionally, I want to acknowledge the support of my parents Elmar and Rosario, whose unconditional friendship, care, and affection have nurtured me in this path. Also, I truly value the encouraging comments of my brothers Elmar, Harald and my sister in law Ana Karen. This graduate experience has been an incredible adventure, explorations and experimentation with which I would like to extend my gratitude to my partner Issac Palafox, whose unconditional encouragement and help have heartened me to succeed.

This dissertation is also dedicated to all my collaborators, thinkers, makers, and doers working in between disciplines who struggle but push boundaries to make transdisciplinary processes possible.
TABLE OF CONTENTS

ACKNOWLEDGMENTS...........................................................................................................iii
LIST OF FIGURES................................................................................................................iv
RESEARCH METHOD..........................................................................................................ix
OBSERVATION.....................................................................................................................xi
INTRODUCTION..................................................................................................................xiii

Chapter

1) IN THE MIDST OF TRANSDISCIPLINARY DOINGS..............................1
   Interweaving layers of pulses ..................................................................................2
   Collaboration with more than human emergent openings ...............................11
   Creative Landings in more than Human Orchestrations ...............................18
   Self-organization and emergent transdisciplinary art creative encounters ..........25

2) BECOMING-WITH POTENTIALITIES: CREATIVE TRANSVERSAL ....34
   Transversal Techniques ............................................................................................37
   More than Human Forces and rhythms ...............................................................43
   Minor Techniques – Gestures ..............................................................................49
   Biograms – Slime Mold Encounters .................................................................61

3) RELATIONAL SPASMS: A TRANSDISCIPLINARY ART PRACTICE......77
   Traces in the Process ...............................................................................................77
   Unfolding Compositions and propositions........................................................90
4) A SERIES OF REFLECTIONS IN LIEU OF A CONCLUSION ..........135

What’s being moved or moving ........................................140

When things might seem that are failing ..........................146

REFERENCES .................................................................147

APENDIX-LIST OF ARTISTS AND PRACTICIONERS .............151

BIOGRAPHY OF THE AUTHOR ........................................152
LIST OF FIGURES

Figure 1.1. Chijikinkutsu .................................................................7
Figure 1.2. Game of Skill 2.0 ............................................................9
Figure 1.3. A New Way to Listen .................................................10
Figure 1.4. Bryozoa Collective ..................................................12
Figure 1.5. Bryozoa extensions like tentacles .........................13
Figure 1.6. Microscope Shot, Living Meshes .........................15
Figure 1.7. Lava Kalidoscope ..................................................17
Figure 1.8. Round Rainbow .....................................................18
Figure 1.9. Four Body Weights .................................................20
Figure 1.10. Drei Kappen an Pflöcken ..................................21
Figure 1.11. Vicious Circular Breathing ...............................23
Figure 1.12. 32SW/Stay green/Flying Garden/Air-Port-City ....27
Figure 1.13. In orbit, K21 Ständehaus .................................28
Figure 1.14. Space Time Foam ................................................28
Figure 1.15. Physarum Polycephalum as grown in a petri-dish ....30
Figure 2.1. Dividing the Light .................................................42
Figure 2.2. Ant Bridge .............................................................46
Figure 2.3. The Last Breath ......................................................54
Figure 2.4. The Last Breath, close up of petri dish with bacteria ..55
Figure 2.5. The Tragedy of the Commons .............................57
Figure 2.6. The Tragedy of the Commons, ant process close up ..58
Figure 2.7. Michel Foucault’s Diagram and the Topology of the Fold ...............62
Figure 2.8. Slime Mold, close up *Physarum polycephalum* ............................67

Figure 2.9. Biocomputer Rhythms .................................................................69

Figure 2.10. Objects Yet to Becoming .............................................................71

Figure 2.11. Drawing a Hypothesis .................................................................71

Figure 2.12. Microscopic fungal filaments links ..............................................73

Figure 2.13. Acineta .......................................................................................73

Figure 2.14. Trees communication process .....................................................74

Figure 3.1. Moving spores and living architectures ...........................................78

Figure 3.2. Sense of Space .............................................................................80

Figure 3.3. Dancing Bee..................................................................................83

Figure 3.4 and 3.5. Circular honeycomb and hexagon honeycomb...............98

Figure 3.6. Circle forces expanding forming hexagons ..................................100

Figure 3.7. Hexagonal Rocks .........................................................................100

Figure 3.8. Feedmidst Lab Sketch.................................................................101

Figure 3.9. Feedmidst Lab, in the road ............................................................102

Figure 3.10. Spazlab .....................................................................................105

Figure 3.11. Spazlab on the move .................................................................105

Figure 3.12. Experimental Comminglings .....................................................106

Figure 3.13. Experimental Comminglings detail ..........................................107

Figure 3.14. Experimental Comminglings detail of educator Alexis Iammarino ....107

Figure 3.15. Last Breath. Drawings and tunnel maps of the mines ...............111

Figure 3.16. Last Breath. Collecting Breath ...................................................112

Figure 3.17. Last Breath. Reading the movement of the bacteria. ..................114

Figure 3.18. Last Breath. Metal cans with ex-miner portrait .........................115
Figure 3.19. Last Breath. Documentation station with samples .........................115
Figure 3.20. Last Breath. Light box table ..........................................................116
Figure 3.21. Mending Propositions .................................................................119
Figure 3.22. Mending Propositions, close up ....................................................121
Figure 3.23. Mending Propositions .................................................................121
Figure 3.24. Mending Propositions, close up plate ............................................121
Figure 3.25. Recollecting Escamoles ...............................................................125
Figure 3.26. Working with nopal (cactai) as a spoon to gather escamoles ..........125
Figure 3.27. Exploring Mangroves .................................................................126
Figure 3.28. Exploring Mangroves .................................................................126
Figure 3.29. Exploring Mangroves .................................................................126
Figure 3.30. Exploring bee farms .................................................................127
Figure 3.31. Exploring bee farms .................................................................127
Figure 3.32. Exploring bee farms .................................................................127
Figure 3.33. Living Meshes .......................................................................129
Figure 3.34. Living Meshes .......................................................................129
Figure 3.35. Living Meshes, graphic design VCU students .........................131
Figure 3.36. Living Meshes, graphic design VCU students .........................131
Figure 3.37. Living Meshes and the more than one ........................................133
Figure 3.38. Living Meshes and the more than one ........................................134
Figure 3.39. Living Meshes and the more than one ........................................134
Figure 4.1. Flow Mappings, dynamic compositions .....................................137
Figure 4.2. Flow Mappings, dynamic compositions .....................................137
Figure 4.3. Flow Mappings, dynamic compositions .....................................137
RESEARCH METHODS

My research can be best described as a “transdisciplinary process method.” It is based on an exploration of processes, dynamics, and relations. It is formed through a transdisciplinary approach that utilizes diverse processes and methodologies drawn from: complexity science, process philosophy, craft, anthropology, study of self-organization in biology, interactive technological systems and relational theory.

I am interested in how transdisciplinary encounters with textiles or threads can be investigated as intensities, transformations, movement, space, multiplicity, and differentiation. My work uses sensations experienced by familiar bodies in resonance with the world, compiling as a world that I have built. Invisible but something that is very much felt, these strings, stretch and traverse my world-creation, or worlding as I call it, as thread movements interconnecting multiple ways of doing and experimenting. In addition to this my research-creation is engaged with hearing the micro and extending it into transdisciplinary collaborations. This is significant for it highlights more than human activations in relation to a living art, an art which is being revealed in between disciplines such as a science and process philosophy, activating in my creative process links to textiles within a wild relation, and emerging from it with potential new ways in which art, science and medicine can be intermingled. An aspect of my work is focused on bacteria and textiles as living formings that trigger transversal visualizations, makings and materialities as part of a collaboration between human and non-human interconnections that in turn resonate in such a way to create a livable art. Broadly speaking I am interested in the making of threads and how such constructions can be related to transdisciplinary assemblages.

My research process is grounded in the observable world. In a fundamental way it starts by observing and experiencing daily actions and systems. Far from ordinary forms of research I
am attracted to a world that might have different forms, a misty world, not clearly outlined, a world that only emerges into some form of clarity as an out growth of collective making. I seek to activate new ways of working with practices that can expand possibilities of previously unthinkable interrelations. At the same time such work can be traceable back to the idea of a kind of wandering, of a collective flowing that emerges again and again from somewhere in the middle, neither at the beginning nor the end, but out the of a relational process. This is like a swarming assemblage that is reactivated continuously by the transformation of tensions and different forces acting and interacting as part of the act of becoming. Collective explorations begins in a sense, with forces of the micro, activating an interesting emergent solidarity. This is what I think art collaborative experiments are: they bring to the table new ways, propositions, encounters between and in the midst of the process of doing. They radiate into many myriad possibilities, releasing other type of creative tensions, torsions and flexions, and trigger relations of different speciations.

The three projects highlights as part of my dissertation work are shaped after a series of events and experimentation Feedmidst Lab, Last Breath, Living Meshes, transdisciplinary and collective exhibitions process based that create dynamic, potential and interactive-relational environments. These projects are activated through the movements and touch of the audience creating possibilities of new assemblages in each event of each one of the art installations (see chapter 3).
OBSERVATION

My research starts with direct and indirect observations and transdisciplinary experimentations in communities of Hidalgo, Puebla, Mexico, Doha, Qatar, Rockport and Orono, Maine. In these locations I have focused on transdisciplinary experimental situations between art, biology, and philosophy. As part of my investigations I have taken into consideration how daily activities such as bacteria movings, bee keeping, rock formations, ants food gathering come together, and paid particular attention to the contextual and relational situations of these interactions. Gathering photos, observing and recording interactions, taking notes and samples of these experiences related to process interconnections in living micro relations, all of which are important components in my research-creation. Writing possible intermedial situations, taking photos, and producing my own transdisciplinary textile mappings, are opportunities to create what I call “nonlinear knowledges, doings, and processes” in my creative practice. My mappings are different depending on what I am investigating. If I am observing an ant I will take video and then write about the process, I might also do a conceptual diagram. At a later point in time this information is recollected and then processed, generating new processes in my art practice. I also use digital mapping systems such as my phone in which I record sounds, conversations, my own ideas and I also sketch quick diagrams in the same document. In these I weave social, individual and collective thread connections opening up creative research into more than human explorations between disciplines. All of these approaches and methods are ways of activating the palpability of emergent daily explorations, questionings and events which activate transversal combinations of dynamic encounters. These acts are co-compositional collective movements, rhythms, and layerings on the level of a relational movement. Transdisciplinary creative encounters create differentiations, folds, and
situations for the landing of rhythms in an ecology of co-composition. Every unknown relation is for me a chance to open up sources of observation. Each one of my direct or indirect experiences has contributed to my artistic explorations, influencing my internal and external processes. I have always focused on situations and events that are interconnected to self-organization, complex systems, and thread processes, which open up multiple visual and vivid relational connections to the non-linear transdisciplinary experiments.
INTRODUCTION

This research is composing in the moving with affective speeds and rhythms, instead of unfolding direct and in linear ways. It is important to come across different planes of composition in movement. There are so many planes of voices spinning around in relation. Research-creation seems as forms of relations and an invitation to appreciate the collectivity at the heart of thinking. The many entering-into relation within a differential thought in the making of its own.

Emergent properties in non-human interactions, such as those presented in Steven Shaviro’s *Against Self-Organization* (2009) and Brain Massumi, are symptomatic of how individualities relate to creative tendencies in relation to the human, non-human dynamism, and emergence as a state or condition. Emergence can be co-joined around the notion of self-organization, “the spontaneous production of a level of reality having its own rules of formation and order of connection” (Massumi, 2002). Self-organization emphasizes on matter-energy which Gilles Deleuze conceives of as the difference or line variation running through all things. Therefore, Deleuze focuses on immanence, how new forms are created, and on the ways in which material bodyings self-organize rather than being forced to do so. Moreover, the research in this dissertation seeks to generate a charged environment where human and non-human emergent processes activate creative encounters that co-create and co-shape each other (Delueze and Guattari, 2003; Stangers, 2017; Manning 2009). This study investigates how complexities and relations expand as an attractor of potentialities, that informs a matrix as movement, and recognizes nodes of the matrix as connections for such movements.

My research is transdisciplinary, where experimental work interconnects art, science-zoology, architecture and process philosophy, and conjoins such with non-human emergent
processes which are complex systems that activate intermodalities in their doing. These areas of research focus on, thread processes and transdisciplinary art doings, such as those brought together in a project called Living Meshes, an experimental installation composed of different elements between textiles, micro movements, plants and insects (see Chapter III). Textiles seen as intensities, transformations, movements, multiplicities of sensations experienced by familiar bodies in resonance with the world in acts of co-composing.

Much of my work, takes form with in diverse intensities, and rhythms of relational bioart, textiles, installations, drawings, and space processes. Through my conceptual engagements, textile-thread and textile-language both offer a significant interplay: thread as concept, thread as substance, and thread as a relational dynamic between subject and materiality. Also, I have been fascinated in nomadic movements, laboratories and forms of how things and processes spread which emphasizes both experimentation and collaboration in the contexts of art, and in everyday life.

My research as presented in this document seeks to examine how transdisciplinary processes and textile propositions are related to emergent art experiments. In these processes relational creative practices are also activated through the interconnection of threads and its capacity to move, manipulate, attract, and repulse senses, and functions. Such interconnections will emerge with a series of conceptual and practical explorations that aim to open up new active rhythms, tensions and connections.

My interest in, and exploration of transdisciplinary techniques floats up because of my curiosity in non-human movements, such as found in bacteria and ants, which in my case activate emergent crosspollination. In my processes and in most of the things I see or touch, vibratory encounters are enacted that relate to networks of fibers, even in things such as my everyday walks. These movements are interconnected to the activation of new relations that go
into the more-than human, and which in turn involves an exploration of concepts around
“relationality” that are part of a process of experience that agitates a play of transdisciplinary
encounters.
CHAPTER I

IN THE MIDST OF TRANSDISCIPLINARY DOINGS

"To experience the texture of the world “without discrimination” is not indifference. Texture is patterned, full of contrast and movement, gradients and transitions. It is complex and differentiated. To attend to everything “the same way” is not an inattention to life. It is to pay equal attention to the full range of life’s texturing complexity, with an entranced and unhierarchized commitment to the way in which the organic and the inorganic, color, sound, smell, and rhythm, perception and emotion, intensely interweave into the “aroundness” of a textured world, alive with difference. It is to experience the fullness of a dance of attention”. Erin Manning and Brian Massumi (2014)

Transversal art doings are seen as potentially continuous becomings in the event modes of thought are found in the midst of rhythms and speeds

Processes of becoming, echoings, relations, dynamic encounters

Activating texturized encounters

Holding in relation different ways of knowing and doing

Emergent as oppose to fixed
Nonlinear knowledge, doings, processes

In the Midst of complexity
cuts across

Different ways of co-composing

Creative thinking as experimentations

Open to errors and failures

INTERWEAVING LAYERS OF PULSES

This chapter advocates that creative multi-layered processes are always in the course of becoming. It is the doing in the act that relational milieus of experience trigger transdisciplinary research-practices in diverse modalities of expression, and these are immersed within open-ended potentialities. This process of doing eliminates linear ways of interconnecting experiences, ideas, research, forms and the more than. It is important here to open up creative research into more than human collaborations and explorations activating a transdisciplinary and experimental approach. Doing triggers, the palpability of the emergent in ways of daily explorations,
questionings and events which activate transversal combinations of dynamic encounters. These acts are co-composition of collective movements, rhythms, layerings on the level of a relational movement. Transdisciplinary creative encounters create differentiations, folds, and situations for the landing of rhythms in an ecology of co-composition.

Transdisciplinary knowings should be considered in relation with the Deluzian ideal of scientist becoming-philosopher and philosopher becoming-scientist. The collaboration between Felix Guattari the non-philosopher brought the philosopher Gilles Deleuze to a new connection where thinking the multiple was transformed into doing the multiple. Deleuze and Guattari are some of the thinkers of what could be called horizontal openings; ways of exploration that allow thought to escape from restrictions of the definitive and enclose creativity (Guattari and Deleuze, 1996, 4). In this writing, a close conception and a rigid practice as creation poses difficulties in a transdisciplinary way of doing, thinking and relating with art making processes. I am focusing on Process Philosophy (specifically Gilles Deleuze, Felix Guattari, Brian Massumi, Erin Manning, Alfred North Whitehead, Gilbert Simondon to name some) and seek to investigate what can I make-do with everyday emergent explorations. It is my contention that such explorations are filled with layers and constellations of possibilities that might be perceptible or imperceptible to the ear, eye, hand of the “other”. Transdisciplinary art, philosophy, and science as creative “forming” invent, explore and fabricate concepts, questions, doings, techniques which are in between non-linear makings. This way of doing “determines its moment, its occasion and circumstances, its landscapes and personae, its conditions and unknowns” (Guattari and Deleuze, 1996, 2). It is all in process. In a creative transdisciplinary experiment, there is a sort of material taste and a potentiality of existence that is intrinsic to thought. In turn possibilities of living categories emerge that are immersed in dimensions of sensation within a visual field. In fact,
transdisciplinary arts, sciences, and philosophies are all equally creative, all of these can move in the fractures of concepts. Creative practices are modes of thinking but also, they build a theory around the immaterial nature of interminglings; between diverse modes of thought that are together, co-composing. Modes of thought and concepts as creative encounters that travel and activate other forces which account for experience in a more minor sense, tending to capture attention in every gesture in an infinity of potential (Manning, 2016).

Transdisciplinary artistic research-practice activates diverse modalities of expression, and it is immersed in an open-ended set of potentialities brought to fruition through process-based work. Being interested in, and moved by, the force of potential, the processual, and the in-act I am challenged by the question: How might I capture a creative emergent process in its transdisciplinary potential? and How can these emergent forces intermingle with transversal materialities?

In order to discover some of the major categories under which we can classify the infinitely various components of experience, we must appeal to evidence relating to every variety of occasion. Nothing can be omitted, experience drunk and experience sober, experience sleeping and experience waking, experience drowsy and experience wide-awake, experience selfconscious and experience self-forgetful, experience intellectual and experience physical; experience religious and experience sceptical, experience anxious and experience care-free, experience anticipatory and experience retrospective, experience happy and experience grieving, experience dominated by emotion and experience under self-restraint, experience in the light and experience in the dark, experience normal and experience abnormal (Whitehead, 1967, 222)

Experience is triggered in the act of doing. The work is the act. Each creative process reveals itself partially or entirely in a potential of time. The doing, being, and the act of making
the work are immersed in my transdisciplinary worldings\(^1\) of latent engagements where the sum of acts are creating formings that embrace, a fusion of expressiveness of everyday life in between modes of thought. Transversal modes of thought are seen as weak because of their supposed inability to lock hierarchical linear methodologies that seek to prove that knowledge was formally attained. Transdisciplinary creative processes are aligned to a doing of experience. As Lygia Clark mentions “Experience lives in the moment. Everything takes place as it could capture a fragment of suspended time, as if an entire eternity were secreted within the act of participation. This feeling must be absorbed for one to discover in the immanence of the act a meaning of existence” (Clark and Bois, 1994, 105).

For something to have some sort of existence there needs to be experience by someone, something, somehow. Experience travels around infinite bodily rhythms, thoughts, concepts, and sensation-based movements where foldings of space, movement and time happening. In this kind of sense experience in transversal research creation triggers infinite folds and surfaces that twist and weave in between multiple processes. Folds are creative and related to a multifaceted combination always in the process of becoming. It is a coming to act that tunes to the relational milieu of experience. The vitality of experience occurs in a half-second or less of an event’s coming to expression. Experience comes from a greater scale of dynamics and interactions, and longer and larger scales. At the same time there are clearly limits to how large and long human experience can cover. Daniel Stern emphasizes that "a 'manifestation of being alive' is all about movement - vitality forms shape the lived experience of duration, giving incipient experience its

\(^1\) Concept related to a preacceleration because there can be no beginning or end to movement of doing. As Manning mentions “movement is one with the world, not body/world but body worlding. We move not to populate space, not to extend it or to embody it, but to create it”. This coming-together activates a combination of form-forces where preacceleration potentially finds passage. Preacceleration: a movement of the not-yet that composes the more-than-one.
activation contour” (Stern, 2010, 6). For Deleuze and Guattari, absolute movement is a vibration, a resonance that precedes all form or structure. It is in this sense, that thinking and being are said to be one and the same. Thus, movement is not the image of thought without being, but the substance of being. Experience is movements that fold into the other, so that the return of one instantaneously relaunches other layers of crystallization which are ceaselessly being woven. To turn toward something does not imply merely to turn away from something else, but in fact causes something else to be triggered. These actions might be a folding itself. Additionally, by folding other movements or allowing itself to be folded by them, this gives rise to connections, and proliferations in the fractalization of experience. More generally, experience is a group of occasions, a multiplicity of becomings: what Whitehead calls a nexus. A nexus is “a particular fact of togetherness among actual entities” (Whitehead, 1978, 23); it is to say a set of occasions, connected in space and time, or adhering to one another. “Occasion” as the process by which anything becomes; while an “event” is an extensive set of such occasions. An actual occasion is something like what Deleuze calls a singularity: a point of inflection or of discontinuous transformation. No actual occasion comes into being just like that; rather, it inherits its “data” from past occasions. Each actual occasion is also self-creating, in a novel way, which treats pre-existing data or prior occasions as what it becomes in that given moment. No occasion is the same as any other; each occasion introduces something new into the world. Once an occasion happens or has reached its final “satisfaction,” it no longer has any vital power. Erin Manning mentions that an actual occasion is a sort of raw material, that any subsequent occasion may take up in its own turn, in order to transform it in a new process of self-creation.

“A process must determine its own reason. Any attempt to chart in advance of an event's coming-to-be the interplay between the anarchic fullness of experience welling
and the cut of actualization into determinateness stems the potential for difference. This renders experience still-born: an event accounted for outside its own evolution is an event that has already been taken out of its liveness and organized within the bounds of preexisting forms of knowledge” (Manning, 2017, 6).

Transdisciplinary creative explorations pulsate in a dynamic way activating in the event to move wisely across material and operation potentialities. In everyday perception, the same thing occurs, there is a certain artfulness in every experience. Creative experimentations and everyday perception are in continuity with one another. Artistic making does not exclude the merging of fields nor the experimental doings in language and knowledge. Becoming aware of these kind of voices moves us toward resonances that make palpable emergent ways of exploring daily questionings and doings.

Figure 1.1. Chijikinkutsu
Akamatsu Nelo, 2015
Watch: https://youtu.be/0p-giz2am0A
Experimentation and emergent making processes unsettle thought, and question the place reason still plays within the methods that direct what constitutes knowledge. Process thinkers and scholars who have open up the spectrum and activated me to make and listen across tendencies as well as move in different layers in a transdisciplinary way, are: Erin Manning, Donna Harraway, Gilles Deleuze, Jane Bennett, Brian Massumi, Arakawa and Madeline Gins, Karen Barad, Glissant Eduoard and others. Process Philosophy bridges and merges fields of art, architecture, philosophy, and science that generate in my art practice participatory and dynamic creative processes that activate interlacings in more than human explorations as in living organisms. Artists that have influenced me to move across ways of knowing and go beyond what is already determined some are Olafur Eliasson, Nikolaus Gansterer, Franz Erhard Walther, Lygia Clark. These artists make thought palpable in process and emphasize constant emergence between disciplines. Such a transdisciplinary creative research is based on artistic explorations that trigger what can be described as concavities and convexities with in inflexion points these changes from being convex to concave or vice versa. Such process can be seen in the way a colony of ants, given a week and a pile of dirt, can transform it into an underground network. The leader (queen), provides only a limited set of controls on the colony. Still the leader does transmit information that controls some of the emergent dynamics of the colony. Even genetic information is a form of transmission from the leader who is typically the only breeding individual in the colony transmitting such information. Within thousands of insects moving crumbs of dirt, creating a complex, sponge like structure with parallel layers connected by a network of tunnels. Some ant species even build living structures out of their bodies: Army ants and fire ants in east and central Mexico, assemble themselves into bridges that smooth their path on foraging expeditions, and certain types of fire ants cluster into makeshift rafts to escape
floods. They can form layer after layer of threads, which are arms and legs co-junctions, creating a capacity for being affected and influenced without losing their core process, which in turn can be seen as liberating the body from a presupposed form. From this I ask how can my creative body of explorations bodying individuate as a force of becoming rather being an end point?

Figure 1.2. Game of Skill 2.0
Christine Sun Kim, 2015-2016
Watch: https://vimeo.com/142659892
I argue that transdisciplinary engagements are non-linear processes that are related to artistic and creative horizontal expansions; they operate through contingency and dynamic feedback. They are always bursting with emergent alternatives, branching paths and opportunities, making the creative process become as a pattern of choices. For me the process is an open-ended and continual practice of change leading to assemblages of organic resources. Materiality of things has some kind of innate form of potentiality. The materiality perceived as Arakawa and Gins write is the one that operates across and through the body-environment and impacts on the same event-space. “It may be that /th/ sounds the line or threshold between materiality and immateriality” (Gins, 1994, 146). “Everything situationally prepares for the move. Arrow moves out its own materiality; it curves up askance. The ice-cold burning of compressed perception has gone to grain and back. Beneath untitled lies a pressed-down skeleton of a memory, schema, that is, of "having made the move" as well as of "to be about to move." Going beneath untitled, and noting that, leads to the return of the proper name” (Gins, 1994, 98). All things and events have diverse positionings apportioning out of thinking-feeling to form a world
that then interacts with more than one. These transversal fields trigger relations among events that have some degree of organism-person-environment. Arakawa and Gins mention that organisms are what they speak of persons of the world; other types of organisms such as dog, giraffe, or cockroach are the world.

COLLABORATION WITH MORE THAN HUMAN EMERGENT OPENINGS

Simondon, revives the word “milieu” to capture a “middle” relation as an active “center,” like a swarming assemblage that is reactivated continuously by the transformation of tensions. Understood in this way milieu challenges us to co-construct a new actuality, new relations, new sensations from unrelated differential forces; it is a force field of becoming. Transdisciplinary processes create an experience of fertile actions that open up an emergence of new sensations in the process. ‘Making’ in such a creative practice is immerse with collaborations and forces between human and non-human processes. These types of collaborations have several fundamental aspects, they renew the relationship between art, matter, action and being, they trigger modes of existence, and they open up relational potentialities to connect human and non-human encounters. When in contact with other heterogeneous elements they activate new assemblages, and new form-takings occur. In a Simondonian milieu, speeds, elasticity and fluidity of concepts are extent, but also bifurcations, decelerations and accelerations are activated to generate breaks and ruptures that refer back to other relations, and experiences. In a daily context, these dynamics are always seen relational and processual. We attend to the perchiness, the passing-relation side, slip behind the use, reestablishing the fact that all form in a milieu is
necessarily a dynamic form. There is really no such thing as fixed form in the process of making. Everyday experiences are creative practices that activate and transfer habits, reflexes, and thinking-feelings from one thing to the next, expanding its dynamic movements by mixing, matching and exploring its own living potentials.

For example, bryozoa commonly known as “moss animals”, are invertebrate, branching, free living, aquatic and colonial organisms. This group of animals live and interact closely with each other co-composing colonies with numerous connected entities. Each group of bryozoa has its own possible texture. Some colonies, those in fresh water are gelatinous or membranous; others are tufted, with flat fronds (leaf like structures) or whorls of slender branches, this texture results from light deposits. Still other colonies are hard and have calcified skeletons. Such colonies may form rough-surfaced patches or may rise in slender branching twigs.

Figure 1.4. Bryozoa Collective
Monterey Bay Aquarium, 2018
In bryozoan colonies, the individuals (zooids) remain interconnected and exchange nutrients and other substances through interconnecting cables or minute pores in their body walls. Others have extensions like tentacles. The body wall is bound by muscular contractions. These organisms are complex because they have cell layers, tissues, and organs. It is impossible to distinguish precisely, where one zooid ends and the adjacent one begins. Jan Hamrsky mentions that if a piece of bryozoan colony breaks off, it drifts in the current until it encounters a solid object, to which it may adhere. Bryozoa secretes a type of glue that helps to stick into a surface. A tiny larval bryozoan is a clam-like swimmer in a bivalve shell. If conditions permit, zooids will continue to grow by creating buds and establishes a new colony.

![Bryozoa extensions like tentacles](image.png)

Figure 1.5. Bryozoa extensions like tentacles
Jan Hamrsky, 2017

Such as bryozoa, and ants my creative practice and research also invents new ways of being in the world. It’s on the move. In my practice local contexts are interconnected in such a way that the emergence is a trigger for locally possibilities to its milieu. There is not just one location, but many.

Every exploration appears in a situation, along with others that sparkle potentialities.

Making is a co-composition of collective movements, it is also a trace of a movement moving in an emergent milieu.

Art doings activate collective rhythms on the level of a relational movement.

Collaboration goes beyond human interactions and there is always more-than.

Collaboration in process philosophy opens up the field recognizing the more than human interactions in everyday creative explorations. More than human experiences are eventful as part of the improvisation of new and emergent vital affects, and this more than human potential, is both collectively and individuating in the act. I make much of the fact that the coming together of individual encounters, composes existing manyness of the more than one, and in this process, there is an unexpected thirdness (Manning, 2012, XXI). No general ideas about humans, animals and interspecies relations are enough to grasp the richness and inventiveness that transpires between us. When two lives are encountered across the species barrier, there is brought into play the thirdness of a joint event in between species: life co-composing. This collectiveness (coming
together) requires a retooling of concepts with which the “nonhuman” and the variation of the human in the same event activate “more than human” relations and processes. In between and across these relations there are improvisations of encounters that pop up where emergent affects burst with life in different degrees of experience. More than human relations are a living with, a coming together, in creative co-composition in such a way that the “properties” move across their differences. Because of improvisations it activates new affects, new burstings with life, and moves us towards new speciations and reciprocal relations. Such relations folds experience, always emerging in more than the sum of its parts. More than one brings doings and acts to different fields in their difference, this relation triggers nodes\(^2\) of creative potential that shift interaction to other forms of relation, feeding the process through which art work becomes multiple, and it’s actions finds practical forces in process\(^3\).

\[\text{Figure 1.6. Microscope Shot. Living Meshes}
\text{Siglinde Langholz, 2018}\]

\(^2\) Where forces are agglomerated. It is also related to a self-organization potentiality in the making of creative emergent actions or movements. It may also be the movement constellations in which processes intersect or branch off collectively.

\(^3\) This in relation to my creative project called Living Meshes, which is described in Chapter 3.
The sensing of human and non-human relations happens across layers, both actual and virtual⁴, constituting an assemblage. In the Deluezian sense assemblage is a sensing and attending to the world toward a becoming. It is a complex feeling that the assemblage is active between different co-emergent milieus that fold in, on, and through one another. Difference in a co-emergent process embodies processual shiftings between strata that foreground and background modes of experience, each of them affected by emerging potentials. Human and non-human collaborations are always active in relational interweaving on more than one portion, and more than one ecology in the making. This collective is a multiplicity of life moving across surfaces of being where the many becomes one, and are intensified by one (Whitehead, 1934, 21).

Many of the Icelandic-Danish artist Olafur Eliasson’s art works are considered to be endowed with multiple sensory potentials. His projects encourage shifts in modes of experience and also activates relational attunements in the event. He senses and attends to the world toward becomings by experimenting in between installations, public events, food, film, photography, and paintings. He is always in a continuous co-composition between and across human and non-human relations activating forces and rhythms in the making. His experimentations and creative research with light, water, air, rocks, volcanos and clouds, to name some, dissolve the boundaries of art making, activating difference in creative processes. Olafur challenges the way we inhabit, relate, activate our art world by propelling it outside of its normal confines. His installations are in the world to be embodied, activating collective multiplicities of connections to other relational ecologies in a transdisciplinary approach. Most of his projects are created to be in constant flux

⁴ The virtual not opposed to the real. It is always an integral aspect of the actual.
and are often derived from the juxtaposition of manmade and ephemeral elements. His art practice is not filled by predefined processes; the event in its doing exceeds form or figure, it evolves into dynamic and perceptual fields, triggering immersive artworks that let experience generate different vibrations and resonances.

Figure 1.7. *Lava Kalidoscope*
Olafur Eliasson, 2012
CREATIVE LANDINGS IN MORE THA HUMAN ORCHESTRATIONS

Human and non-human singularities, emerge and are co-constituted in a field of experience, they are intensified by dynamic movements that constellate into the world, called landing sites. These sites are not just a specific node of space-time, they are the conditions for the triggering of the event’s actualization. Landing sites are fields that have forces that tend toward relational practices. What is important to understand is that this becoming event or landing is a way of relating, a mode of engagement, where the event folds into a potential of other landings which are intertwined in a singular iteration, always trying to individuate, under different and new conditions. Landing sites must create a differentiation, a fold, a situation for
rhythm not only for a body, but for an ecology of co-composition. In this sense, an ecology is not only a re-composition of space-time, but also a movement of thought.

Landing sites are multiple and, it seems, a force in the matrix of organism-person-environment, with a resultant constant effect of their surroundings. Arakawa and Gins (2002) define these same aspects as configurations that travel in possible worlds, tweaking tonalities of an event while remaining virtual. In this virtual movement, they can be felt as potentials that act on future reconfigurations without becoming as actual occasions. They activate tendencies that may or may not reach the surface transforming into expression or actuality. Landing Sites float in the middle of perception, and create paths of resistance and cohesion, activating actions that re-form space-times re-combinations, catalyzing event-time. Each landing is a trace in motion. Arakawa and Gins write that in every configuration of a world there is an active field of action that creates a correlation of attributes generating an infinity of folds which is in turn a proto-architecture. Following this each proto-architectural mode/thought is an extended impulse for a mobile architecture in the making.

For Franz Erhard Walther, his art process is like an open field where relational movements go beyond the human body. He explores sculpture as movement vocabularies where negotiation and relational processes between quiet and active states of human and non-human trigger diverse processual conversations with texturized fabric-objects. Walther researches how his fabric artworks come into being through the interrelation of bodies and materials. He is interested in what can material do in different states in relational fields and what potentials can be activated. In most of Walther’s art projects, attention is the enabling constraint of the improvisation which triggers movement. In other pieces, Walther requires a group of participants, where in the event process within the fabric structures it is triggered collective skills
and tools that activate other creative encounters. The movement is already mobile since it is in a continuously moving set of relational positions within the art piece/s. These mobile sculptures, also called “instruments,” investigate the spatial, sensorial and different dimensions of forms. Walther’s pieces are activated and created through movement by enabling proposed constraints. It is important to mentioned that the folding and unfolding of these instruments-surfaces activates landing sites. Walther’s sculptural mobile practice is rooted in performance and collaborative situations, challenging traditional notions of sculptural process; for this to land what is needed is a proposition or enabling constraints. Propositions are, in these works, the strategies that open up potentialities for imagining collaborative art practices outside accustomed ways.

Figure 1.9. *Four Body Weights*  
Franz Erhard Walther, 1968
More than human orchestrations in art processes and in a durational field of the movement in its unfolding, requires interconnecting the human and the animal field. This must be done in a way that does not erase what is different about the human, but respects that dissimilarity while bringing it to new art expressions. In this process, the ludic gesture wraps difference in its own performance. These gestures are forms of play in the animal world that mimic and remark on actions performed in the world beyond play. A ludic gesture as Brian Massumi (2014) writes, “must signal its belonging to the arena of play if it is to avoid falling out of it”. When transdisciplinary art processes are put in the context in which that action finds its practical force, the normal function is suspended. These suspensions apply force in between gestures where it performs a move, with immediacy of a sudden transformation, while in the very same move it triggers an abstraction of this very same action. Massumi writes:
“The force of the ludic gesture is a force of passage which induces a qualitative change in the nature of the situation. Two individuals are transported at one and the same time, but without changing location, by an instantaneous force of transformation. They are taken up in a transformation in place that does not affect one without affecting the other. The ludic gesture releases a force of transindividual transformation. The immediacy of the transformation that the gesture’s execution induces qualifies the ludic gesture as a performative act. Play is made of performative gestures exerting a transindividual force” (Massumi, 2014, 5).

Play allows movements such as speeds and rhythms to travel across the multiple and in between the difference in creative processes. Transindividuality is what makes play a fundamentally relational process, from the moment its movement triggers it. In the movement of play, across difference and in their dynamic forms, each new instance of play provokes further improvisational potentials. Play becomes an elastic arena where Differentiability is drawn into otherness, mobilizing itself toward invention. This reinforces and extends what a gesture denotes as well as what it would denote. In my art process, creative forces are released by play and ensures potentials in the practice. In Transdisciplinarity art experimentations, play is an expressive activity that is immersed into the production of the event’s corporeality. Corporeality absorbs the essentials of the event into its own unfolding, activating new creative pulses of its own becoming. As Brian Massumi (2014) says “Corporeality is one of the factors reflected in the vitality affect. Vitality affect gives corporeality, as it happens, a supernormal twist that amounts to a performative comment on it.” Play registers the vitality of the event in experiential tones upon situation within a corporeality (bodiing). The artist Franz Erhard Walther (1970) mentions “Everyone has to make use of his own abilities, to experience his own possibilities.” Playing out creative encounters interlaces corporeality with the living out of a given situation because there is a projection of a/the creative urge. To make this clearer “play” is not necessarily associated
here with happiness or fun, every time it is activated, there are also “nonplay” situations. Play and nonplay situations part of a dynamic relation of mutual inclusion which must be rethought in every case it is triggered. These two modes of activity in mutual inclusion are entwined with degrees of each other, their differential remains. Brian Massumi (2014) mentions that “in the logic of mutual inclusion, difference of degree and difference in kind are actively inseparable, two sides of the same processual coin. The continuum on which instinct and intuition differ by degrees is that of animal bodying. The remix in which they come- together- again across their difference in kind recurs punctually in animal bodying’s every gestured event”. In play, there is always a process of mutual inclusion and in the life of the event, it interconnects the differential between the human and nonhuman transindividuality.5

Figure 1.11. *Vicious Circular Breathing*
Rafael Lozano Hemmer, 2013

5 Understood as what Simondon refers to “in between,” as something in between and through individuals. He explains this as a relational ontology and also expresses that individuals are not constituted by being but rather “cross through” it. Transindividuality as in the world in relation to other individuals.
Life is the synonym for differential and mutual inclusion, it lurks in the zone of indiscernibility in the interweaving of differences of every kind and degree. At each pulse of experience, there is an emerging of new variations of life, expanding across a multiplicity. The nature of life is a continual variation across continual iterations, repeating always with difference. Because of the interweaving of co-involved differences, evolution is never linear. Ludic gestures in the rolling of life implicates at least two, with their individual differences in an instantaneous back and forth dynamic. Henri Bergson writes (1998) “life is, a tendency to act.” and again “The direction of this action is not predetermined; hence the unforeseeable variety of forms which life, in evolving, sows along its path.” For these individual differences to happen in a creative act, the immersion of possible actions or enabling constrains in the event is needed. Enabling constrains trigger creative encounters in the duration of the actions, these encounters are folds of different degrees of movement that are activated in the interweaving of human and nonhuman. “Each being cuts up the material world according to the lines that its action must follow: it is these lines of possible action that, by intercrossing, mark out the net of experience of which each mesh is a fact” (1998, 6). Creative human and nonhuman landings dynamically orchestrate intersections within these collective bodyings, activating emergent variations in transdisciplinarity art processes. Concepts such as mutual articulation, mutual inclusion, the dance of encounter, transindivial, co-composing, play and ludic gestures inform the understanding of “becoming with” rather than simply being in the world (Haraway, 2007, 3).
SELF-ORGANIZATION AND EMERGENT TRANSDISCIPLINARY ART CREATIVE ENCOUNTERS

Self-organizing is a dynamic, complex, intuitive and active process of life, with a capacity to grow and move by itself in a collective, by which it organizes modes of processual actions. This organization of the multiple has different rationalities and temporal associations, but they act in resonance with each other. Self-organization can recapitulate the same event in diverse ways evoking the fractal and nonlinear causality underlying theories of complexity. Complex systems are not organized centrally, but in a distributed manner; there are many connections between the systems parts. In self-organization, it is complicated to predict behavior even if one knows to a large extent the microscopic components and their inter-relations. It is the question of emergence that meets around the notion of self-organization (the spontaneous production of a level of reality having its own ways of formation and order of connection). Self-organization in creative spontaneous encounters triggers non-linear emergent processes, and involves the emergence of new constraints and possibilities. For self-organization to interrelate with its milieu it is mediated by a field of interaction. Norbet Fenzl (2005) points out that the process of interaction happens between two or more open systems. For an interaction to occur in between open systems there would have to be a shared field, provoking dynamic processes, bundles of trajectories, causality, ambiguity, becoming and emergence. This can be seen in the micro and macro dynamics found in nature, including whirlpools, the swarm-behavior of flocks of birds, the formation of Ant and termite nests, and the synchronization of fireflies. Corporeality is lived and a part of experienced realities of thinking in movement. These can affect a body, but they can just as well be material movements, or environmental movements.
The artwork of Tomas Saraceno is in constant relation to self-organizing social systems. His creative explorations highlight transdisciplinary encounters between physics, biology, cosmology, aeronautics and material science. In this sense, he is interested to work in the context of the points of intersection between the making and the becoming of the natural world. Space for Saraceno is a primary medium because he plays with large and small-scale architectures of spider web morphology, soap bubbles, gravitational fields, constellations and neural networks within dynamic encounters in the act of becoming. To have a better corporeal experience of his work, it needs to be experienced, this is an important part of his creative process and the nature of his work. Standing in the middle of Saraceno’s work, the potentialities are inescapable, it opens up affective tonalities that may escape in diverse forms. Saraceno’s art work crosses and distinguishes the need to extend the notion of humans and non-humans and how these can be woven in their difference, activating expressions of their dynamic forms and triggering other potentials. He plays around with complex systems, floating structures, dust, organism, ecological systems revealing and multiplying connections and assemblings. Tomas Saraceno explores the more than human relationships and the becoming in the event. In his installations, he provokes and creates spontaneous relational experience with the audience, pushing limitations of experimentation with materials and techniques letting relational processes travel in the midst of events and processes. His creative processes explore the spinning of tiny universes in a vibrational mode within its different rhythms and multiple forms of life. Some of his installations are formed by complex interwoven networks that activate unique architectures that originate from encounters between different spider species. It is important to mention that the visual abilities of spiders don’t translate into something akin to image processing the way ours do. They instead see variations of light and motion and perceive the world through vibrations. They
also do something called ballooning: they hang from a tree and when the wind is strong enough they take off, spiders can travel very long distances. These artworks foster the emergence of new kinds of what can be described as vibrational environments. Collaborative relations with the more than human, such as those in Saraceno’s work, provoke creative dynamics that attune with more than one potentiality.

Figure 1.12. 32SW/Stay green/Flying Garden/Air-Port-City
Tomas Saraceno, 2007-2009
In transdisciplinary art processes, affective relations are the immediate experience of the transindividual affect in the unfolding of an event. “Affect” is used here to encompass both a vitality affect and a categorical affect, as they come together. Vitality affect, corresponds to lived
abstraction and the deterritorialization associated with its emergent playing out (mentioned earlier in section on play). Intensities in an actual relation are in relation what is called a “critical point,” or a “bifurcation point,” in chaos theory, and is the turning point that embodies multiple potentials. Massumi writes: “Affect is their point of emergence, in their actual specificity; and it is their vanishing point, in singularity, in their virtual coexistence and interconnection-that critical point shadowing every image/expression-event.” (2002). In this context the event in transdisciplinary art spans across indefinite times and spaces, activating a dance between what is encountered in the process, its emergence and its viability as a driving force for the creation of artwork. Emergence related to self-organization and novelty is the result of multiple creative interactions which could not have been predicted from what came before. Intensity is immanent to matter and to events, in every level of bifurcation composing them and being composed by them. Intensity and experience accompany one another, like two mutually presupposing dimensions. In art, these are interconnected with emergence, activating the novelty of new ways of creative experimentations within organizing processes, life structures, rhythms, forces, and dances. Novelty 6 by itself does not rise to the level of being emergent if it is simply an extension of previous events. According to Donna Haraway (2008) “emergents require attention to process, relationship, context, history, possibility, and conditions for flourishing. Emergents are about the apparatuses of emergence, themselves braided of heterogeneous actors and action in torqued relationship.” Exploring this matter in relation to Transdisciplinary Art practices and how these interconnects with active processes, opens up new ways of activating non-linear contemporary art work, provoking emergent relations. These possibilities can be defined as attractors. The

---

6 In the Deleuzian sense, novelty is generated through the interweaving of non-linear processes, fresh creations, becomings. This is not continuous, because each occasion, each act of becoming, is unique: a “production of novelty” that is also a new form of “concrete togetherness”, or what Whitehead calls a “concrescence”.
emergence of a set of possibilities and the selection of one possibility in a bifurcation point should be considered as an exploration of self-organization; bifurcation as a point of the formation of triggerings. In such a process the event would determine random choices between probable mixes. For example, slime molds, self-organizing organisms that embrace emergent heterogeneous assemblages, follow such a pattern. These organisms are little unicellular slug-like creatures that wander in search of nutrients, then form a mushroom-like stalk, and scatters as spores. In this organism, numerous individual cells fuse and attach to each other such as to make one large supercell with one large membrane surrounding by numerous individual nuclei. Ling (1999) mentions that this "supercell" is essentially a bag of cytoplasm containing thousands of individual nodes. Thus slime molds are able to create, without any central control, networks and a large multicellular body within different layers and operates at a capacity far beyond the sum of its individual parts. These organisms pulsate and vibrate in different speeds while they expand into random rhizomes.

Figure 1.15. Physarum Polycephalum as grown in a petri-dish
Hans-Günther Döbereiner, 2017
The work of Gilbert Simondon is an important resource for my research, he sees such functioning even on the physical level, where "germs" of forms are present in an emergent dimension along with unformed elements such as attractors, circulations of potential energy (gradients defining metastabilities), and non-localized relations (tones - echoings). Simondon mentions that the dimension of the emergent which he calls the "preindividual" cannot be understood in terms of form, even if it in-folds forms in a germinal state. It can only be explored as a continuous and differentiated field with formed entities. A germinal form cannot be understood as a shape or structure, it is more a bundle of potential functions localized, in a differentiated region, within a larger field of potential. Dynamic thresholds activate regions of differentiations within an open field characterized by action at a distance between elements such as attractors, gradients, tones - echoings. Further, the playing out of these potentials requires an unfolding in the immediacy of our thinking-feeling of what is happening into action. According to Massumi connecting thinking-feeling in an event is a carrying of potential as a kind of belief. This is what Deleuze (1995, 90) calls a “belief in this world,” he mentions that the world has always more to offer, if only we ride its layers with intensity and technique. Thinking-feeling has an immediacy of feeling which is not separable from potential, and the event’s uncanny process, none of which can be parsed out into separate sense inputs.

Potential is allied to what if. Thinking-feeling in art making is interwoven with doing (action) and the primary consciousness toward a release, this is what Massumi calls “bare activity.” He writes *Bare activity, construes the inside and outside as phasings in and out of each other: as phase shifts designating poles in the same process of mutual inclusion. The transindividual folds into the infraindividual, which folds back out into the transindividual. The more- than human is not outside. Rather, the human where it occurs to itself in nature is in the*
Bare activity is a way of keeping a hold on potential, of continuing to be on the move in a process of becoming. Language and movement meet in the thinking-feeling. Language and movement entwine, with each twisting into the middle of their difference. Thinking-feeling is transversal in all planes of experience in the immanent twist. It is, like, life. Movement only comes from movement in a rolling continuity of thinking-feeling. Movement is always triggered relationally. Thinking-feeling are co-emerging both activated by a co-composition of the movements that go further, to more than human orchestrations. In transdisciplinary art practices, transversal emergent assemblages are in between thinking and feeling. They are the key to the activation of novel creative encounters in the midst of ways of doing. In these transversal makings there is an intensive feeling of an open relational field that activates forces that trigger different ways of doing. Thought is felt. A thinking-feeling as Manning and Massumi (2014) write, arises from the material dynamic of contemporary art making process, containing time, in the trace-forming through connective and self-relating vibrations. It is like a dance of world art-making. What happens in the folds is what is important. In more than human transdisciplinary art making processes it is necessary to have minor compositions that are activated in an emergent way by enabling constraints, these in turn trigger creative encounters in the event that in-fold and fold different degrees of movement. Massumi and Manning write that “An enabling constraint is positive in its dynamic effect, even though it may be limiting in its form/force narrowly considered” (2014, 93). A transversal way of doing art needs the activation of thresholds that are intensities which are triggered in the ongoing of the action in an experimental way. In this process, it is essential to create enabling techniques where the actions and processes reconnect with relational fields that activate intensities, expressing themselves in emergent forms of
organization and experience. The role of the techniques of relation would not be to “frame” the interaction, but would be for triggering opportunities for creative participation, which are encouraged to take on their own shape, direction, and momentum in the course of the event. The role of technique is to create conditions for the event in relation. As Manning mentions “Practice and technique are key to the creation of a dance of attention” (2013, 93) in transdisciplinary processes. To generate creative encounters in emergent transdisciplinary art nonlinear dynamic techniques are needed. These feature manifolds (the distribution of singularities) affecting a series of trajectories in space, revealing patterns (revealed by ‘attractors’), thresholds (bifurcators) and intensities of triggerings (events that move techniques to thresholds activating transversal patterns) of transdisciplinary encounters. If the technique is there, they may even be able to assert mixtures while refusing capture, activating tendencies, and escape. This description is referencing complex emergent processes, rather than programmed organization. Emergent processes are dedicated to new occasions - encounters, agitated creatively in an open field. Transdisciplinary art making expands out emergent potentials in more than human relations in which creative encounters for collaborations are being invented. For transdisciplinary creative doings to happen enabling constraints are needed to run through the varieties of relations and the distribution of differences in more than human relations. “The more-than-human: the included middle of becoming-animal, always-already in process, in playful pilgrim’s progress to its own horizon” (Massumi, 2014, 93). In nonlinear dynamics in the more than, techniques in between processes, activate and provoke forces that modulate the event in the immediateness of its coming to expression.

Every fiber of our existence interposes an action into being in more than human collectivness.7

7 In relation to Living Meshes, please see Chapter 3.
CHAPTER II

BECOMING-WITH POTENTIALITIES: CREATIVE TRANSVERSAL TECHNICITIES

From the point of view of nomad and transversal self-organization practices, which are presented as an art process as much as a technique, this follows connections between singularities of matter and traits of expression. These are defined by Deleuze and Guattari “as materiality, natural and artificial, and both simultaneously; it is matter in movement, in flux, in variation, matter as a conveyor of singularities and traits of expression” (1987, 409). These singularities of matter need to be inscribed in a process that is activated with the environment out of which they emerge. Matters of expression are replaced by a material capture. Every material is in relation with a milieu, there is an event-connection continuing across its own discontinuous capture. This happens in the interstices where material capture relates to creative encounters and procedures, and is necessary to redefine the interconnections between the micro and the macro assemblages. It is the technique of making through which the tonalities of affect are felt (in this sense is not human; it is not the making itself that activates experience) making aspects often only indirectly felt and that which would otherwise slip behind the flow of action, an unambiguous experience.

This technique is activated in the process of experimentation, movement thus becomes an interstice of body and machine, in a practice of continual invention of what a machinic body can do. It creates novelty out of relational matrices. More than a sum of its measuring parts, the machine generates potential, registering not simply data on movement but ontogenetically adding to itself such that it is always intrinsically in the process of reinventing what a machine or a technique can do. It is in the making that the imperceptible appears, referring here to virtual forces of movement in the making that propels a taking of form somewhere and somehow in the doing. A technique of making is elastic where interstice of the actual re- becomes virtual and
vice versa. Actual and virtual are forces in movement that are always in relation recomposing and becoming more-than what it is occurring. Art is the technique for making the unobserved observable: the perceptible qualitatively discerned and reminds us that it is as much about life as it is about the things we live by. As Massumi (2008) mentions, art is a technique of living life and experiencing the virtuality of it more fully, living it more intensely. “In everyday perception, the same thing occurs. There is a certain artfulness in every experience. Art and everyday perception are in continuity with one another. But in everyday experience the emphasis is different. It is all a question of emphasis, an economy of foregrounding and backgrounding of dimensions of experience that always occur together and absolutely need each other. Art foregrounds the dynamic, ongoingly relational pole. Everyday experience foregrounds the object-oriented, action-reaction, instrumental pole”. (Massumi, 2008, 7) Art in this context, brings back that all forms are dynamic and that it is a technique of living life more fully and intensely. Deleuze (1995) writes:

“Each art has its interrelated techniques or repetitions, the critical and revolutionary power of which may attain the highest degree and lead us from the sad repetitions of habit to the profound repetitions of memory, and then to the ultimate repetitions of death in which our freedom is played out.”

In the making of experience there are processes in which events carry virtuality but are never virtual (as such) it is ground at the crossover of their becoming actual. The virtual is potential. This is intertwined with the qualitative, a living feeling that creates a form of expression, which is the dynamic of becoming. Practice and technique are key to the activation of art making. These to be operative in a transdisciplinary practice are in need of appropriated techniques that bring to bear multiplicities of existing components. To trigger complex configurations in an art practice, one must be open to landings, in multiple ways.
“When how the world is apportioned out is translated into landing sites, all stays the same, touched but untouched. A person parses the world at any given instant into particular distributions of landing sites, or better, an organism-person-environment can be parsed into these distributions.” (Arakawa and Gins, 2002, 6)

Landing sites must attend to its tendency in the process in order to evolve toward open invention: from technique to technicity. Open invention must respond not only to actual landings but to the virtual forces of hints that do not land, but which initiates pointing, electing, determining, and considering, and may be said to co-originate all sites. Organism-person-environment are sites and would-be sites. An organism person, lives as one site that is composed of many sites.

Technicity is a fundamental aspect of modes of existence (being in the world), it must be conceived as part of diverse tensions and relations to other layers. Manning writes (2016, 40), “Technicity would be the experience of how the work opens itself to its potential, to its more-than. This quality of the more- than that is technicity is ineffable - it can be felt, but it is difficult to articulate in language.” About this she further adds that the “. . . transitions in experience, research- creation can make technicity palpable across registers. It can make felt the force of transition and dissonance active in the conjunction.”

Transversal creative processes open up existing practices, of whatever category, scale, siting or distribution, in a way that in the process and their potentials reappear, functioning in a dynamic way. The essential relation within a technique is no longer matters-forms; neither is it the continuous development of form and the continuous variation of matter. It is now a direct relation to/of material-forces. These matter -forces arise in the question of how can continual relationships be used in terms of techniques in transdisciplinary art practices? In this context it should be briefly mentioned that crossings, turning points, folds have a number of things to offer
for transdisciplinary dynamics. Deleuze has argued that the ultimate wish of the organic is to become orgiastic, to overcome itself, capturing the infinitely smallest difference and its disappearance. A technique triggers the infinite because it is dealing with the capture of difference and its dismembering (Deleuze, 1995, 262).

TRANSVERSAL TECHNIQUES

**FOR THOUGHT IN THE ACT**

0. Practice immanent critique
1. Construct the conditions for a speculative pragmatism
   2. Invent techniques of relation
   3. Design enabling constraints
   4. Enact thought
      5. Give play to affective tendencies
6. Attend to the body
   7. Invent platforms for relation
   8. Embrace failure
   9. Practice letting go
10. Disseminate seeds of process
11. Practice care and generosity impersonally, as event-based political virtues
12. If an organization ceases to be a conduit for singular events of collective becoming, let it die
13. Brace for chaos
14. Render formative forces
15. Creatively return to chaos
16. Play polyrhythms of relation
   17. Explore new economies of relation
   18. Give the gift of giving
      19. Forget, again!
20. Proceed

Erin Manning and Brian Massumi (2014, 83)

Each practice is interconnected with a set of different techniques that create a potential fissure or breaks sparking other set of encounters in the making. Such fissures help to bring transversal and transdisciplinary techniques into forms such as textile art and installation art, where the creative event activates propositions that in turn produce potential breaches. It is in such openings that thought acts and activates co-composing practices. Propositions that are
capable of agitating processes, languages, experiments, dynamics to the limit where it begins to move within its inflections. As Manning and Massumi write (2014, XX) “Technique, as throughout, belongs to the act. Techniques are not descriptive devices they are springboards. They are not framing devices they activate a practice from within. They set in motion.” Propositions in techniques activate cracks of possibilities in art practices triggering other ways to encounter together in the event. These emergent art collective co-compositions trigger a thinking in the act, and across a multiplicity of practices. A visual analogy of such dynamics can be seen in wave patterns: when you drop a coin in a fountain it produces a ripple pattern, and two coins dropped into the same fountain produce two wave undulation patterns. Where the ripples interconnect, a complex pattern emerges (Manning, Massumi, 2014, VIII). These type of wave interferences, in art processes provoke new relations, want can be called co-composing. Co-compositions move around difference and repetition, not only in its most abstract reflections but also in its effective\(^8\) techniques. “Then the necessary techniques can be nothing other than live techniques of abstractive relation: relational techniques of lived abstraction.” (Massumi, 2014, 57). Live techniques of relation activate the conditions of the movement of escape, making a creative practice of becoming, thinking- doing. These live techniques pursue intuitively self-driving tendencies with equal measures of improvisational skill and technique, holding the more than human potential of expanding horizon of possibility (Massumi, 2014, 63-64). In this context co-compositions and works of art are never produced by or for the sake of technique. It is important to mention that technique includes many things that are manifested according to each artist’s processes and work, as Deleuze writes,

\(^8\) In relation to the effect in the doing.
“words and syntax in literature; not only the canvas but its preparation in painting, pigments, their mixtures, and methods of perspective; or the twelve tones of Western music, instruments, scales, and pitch. And the relationship between the two planes, between technical and aesthetic planes of composition, constantly varies historically... The relationship of sensation with the material must therefore be assessed within the limits of the duration, whatever this may be.

If there is progress in art it is because art can live only by creating new percepts and affects as so many detours, returns, dividing lines, changes of level and scale” (1996, 192).

In transversal research-creation processes, techniques, combinations, and coexistences are constantly being produced, which are more abstract than distinct movements. In these creative doings, there is an ecology of openings where new potentials for thinking within and across techniques are activated. For Gilbert Simondon, the concept of technique in a work or a practice is processual: it reinvents itself in the evolution of the process, and its movement to expression must be allowed to play out. Technique follows the momentum of its own unfolding process. Manning (2016, 37-39) stresses that a technique is not a method. Methods on one hand are functions within general categories that are understood to be transportable across contexts. On the other hand, technique is something quite different, for it happens in an operative process which drives attractive unfoldings. Following Simondon, technique in transdisciplinary art is used as the operational process of conditions and as emergence as a platform for relation. Research-creation within this context embodies techniques of emergence in which a creative art practice launches concepts in the making. These concepts in the making and at the level of techniques are mobile because they continue to invent other ways to relate, activate, and make (Manning, 2016, 89).
Being a collaborator in the Sense Lab, a research-creation collective based in Montreal, new techniques are activated in each event which in turn need to be continuously practiced, or shifted toward what Erin Manning has named "outdoing of technique," or technicity (2013, 32). Experimentation in research and creation with this interdisciplinary collective has truly activated new territories of my creative doings. This triggering, both for myself and for the Sense Lab participants, occurs in both theoretical research and the level of art practice itself. In this way making already is thinking in action, and conceptualization a practice in its own. Both would intersect through diverse techniques that need to be fully creative to be open ended. Creative and concept base practices in the Sense Lab are manifested through active experimental processes. Resultant emergent effects of such ongoing process embodies techniques as catalyzers whose exact lineaments cannot be foreseen. This research collective, has been calling these processes “techniques of relation” or what Brian Massumi calls “performed transition mechanisms,” which are co-compositions; a sum of possibilities inviting a combination of techniques between organisms-persons and actions. Most of the explorations come alive collectively and they activate counterpoints where the body must be open to landings in multiple ways. It must respond not only to actual landings but also to virtual forces that don’t land, and it must learn to move in attention with the complexity of multiplicity (Manning, 2009, 63). It is the project, the event, and the encounters that moves Sense Lab participants to work together; creative practices and collective process emerge by the doing. Being in the work requires not only flexibility, but also the ability to allow a project to fail. Each project creates its own conditions for experimentation and proposes its own techniques for developing potential openings. In a transdisciplinary art event it is important to create limits in the expression of a creative process, for such limits facilitate crossings and openings. In Sense Lab as a collective, thought-feeling
with and thought-thing activate together an event. As the thought shifts into a becoming-event, it actively merges with the thing’s potential in this singular configuration. This event is the trigger point of a wider experimentation and emergence with thought-thingness.

In an event organized by Sense Lab at Claremont College in California many of us had the opportunity to see and be part of James Turrell piece in Pomona Collage Skyspace, “Dividing the Light.” This is not just an installation, or physical structure, but the work should also be seen as activating perception, creating an event that heightens the awareness of light, sky, and context. This event takes place every day 10 minutes before sunset and sunrise and continues for approximately 40 minutes. Walking to the spot takes us 30 minutes to find, when we suddenly are in a space that looks like several things, a garden, a building or even a river or a sky. Once inside I start to move in different ways and as my body moves in the space I find a spot in a something like a sitting mechanism (bench, booth) to rest looking upwards. Unexpectedly the space starts to light up vibrating in between a yellowish, purpleish, and organeish sky. I feel my body starting to vibrate as if echoing of what was being activated by the space, in turn the space starts to move, breathe in and out, such as if you were crossing dynamical dimensions. Colors activate movement provoking an echoing of collective perception, provoking vertigo. Such a feeling also encounters in relation to a naked flesh where the swirling red climbs back to the suns and sky horizon provoking vertigo, this dizzying sky splashed to the waves of the blueishness. Transversal relational techniques in James Turrell piece are not made up of things that are foreign but based in shared knowledge such as swarming techniques in relation to light, and space movement provoking disorienting experiences and unmodulated fields of color. These perceptual movements are coupled and oriented around cosmic events. The enhanced observation intensifies the effect of the tonal range making these an extension of the
lived experience within the diverse event encounters. This process is an interesting element of exchange: “Dividing the Light” collapses - expands space, activating color movement in which the overload of fields triggers seeming hallucinations. Turrell makes the surrounding edges blur and disappear and activates other layers of creative encounters of this event.

Figure 2.1. Dividing the Light, Pomona Museum
https://www.pomona.edu/museum/collections/james-turrell-skyspace

The interconnection of experience, through which a singular set of potential relations are activated, becomes an event. A creative event suggests forces through which thought-things take form. This taking form occurs where thought and things collide in an experience of the not-yet, and what emerges is a kind of disequilibrium where new variations, unraveling and shifting flights can take place. Technique as a set of relations that activates new conditions for thought/action. Creative transversal techniques in an event become apparent in diverse dynamic layers as part of the process. In emergence, techniques are directly related to thought. They are further entangled in a relational potential of what is already underway, activating new forces for practice. A process becomes a technique when it makes palpable the inherent potential of a milieu. All techniques require iteration, repetition, but no technique can survive without difference and more than human relations. Massumi writes “It is more than human: human plus
many-one singular-generic spacetimes of experience; human plus the eventful improvisation of new and emergent vitality affects; human plus contingencies belonging to any number of categories; human plus more than currently human potential, collectively individuating.” (Manning, 2013). In context more than human as the more than one, each with its differences. These two different species in the traditional sense of the word are seen as categories of being expressed by divergent sets of inherent properties. The fact here is the coming-together between the individuals where an unexpected thirdness comes to play in the process.

MORE THAN HUMAN FORCES AND RHYTHMS

Technicity is fundamental for the modes of existence in an ensemble constituted by humankind and the world. Souriau writes, modes of existence “appear through an effect of perspective, which situates them between different modes. They are relative not to pure existence (in a given kind), but to the order of compared existence. They are beyond pure existence, for which the Eleatic instance remains valid. They are in the interval between two planes or modes of existence. In fact, it is precisely the passage from the one to the other that makes them appear. Each taken on its own, or in their static relation, that which was actualized as intensive in the dynamic stage can resolve itself in extensive considerations.” (2015,118-119) The transitive link is also real, and expresses itself through the experience of existential intensity. This movement carries on in triumphant existence that the completed work manifests. This expanding existence is ultimately made up of a coinciding, double modality of a single being, which is progressively invented over the course of the doing. Often without any foresight: the resultant making is always a novelty, a discovery, and a surprise.
In this sense, it is important to be in relation with more than one and with the more than human which will always permeate the world of representations. These dynamic modes of existence trigger potentialities which in turn provokes a recalibration of collective movement. This movement is calling forth the uncanny, out of which an immediacy of experience emerges. It is active in the relation, in the movement of bacteria, sound and color, and the environmental move itself in the making are collective movements. (See Chapter 3, Last Breath). It is in this relation, that the more than one movement shifts in ground, feeling like a becoming of a lived practice that is attuned in the moving. Technicity enables conditions of life-worldings and speaks within difference in neither time nor space, but makes both possible. Technicity utilized in collective forms of making opens up potentials for new ways of thinking and doing that in turn provokes a new form of practice which activates a dynamic relation between theory and practice. In this new practice techniques are not equal to all processes and must therefore be reinvented each time, moving across a collective event. We move across practices techniques surfaces into the texture of the becoming- image, the becoming- thing. Techniques move across, emphasizing points of emergence. Massumi calls this a “something doing:”

There is always a something doing cutting in, interrupting whatever continuities are in progress. For things to continue, they have to re continue. They have to re jig around the interruption. At the instant of re jigging, the body braces for what will come. It embraces, in the sense that it returns to its potential for more of life to come, and that potential is immanent to its own arising. (2015, 53)

Emergent creative processes move across art forces, dynamics, rhythms, transversally. These processes put attention on collaborative work in multiple ways, activating foldings where singularities and points of emergence appear which activate a quality of infinite potential. Singularities and points of emergence co-compose in relation. Singularity, here in relation to individuation, is always in the act of new foldings. These foldings bring into appearance not a
fully constituted thing, but co-constitutive material, form, and expression. It is a fold an expressibility.

In Transdisciplinary art doings, we must invent *across* practices, folding and unfolding more than human potentials interconnected to collective individuations, each one with its differences, embracing its potential. Art making engage in actions that are more than human process, trigger different ways of thinking, experimenting, collaborating. In these processes, it is necessary to both invent techniques for the making transversal operations perceptible, and to tweak these techniques as they are activated. It is important to in all of this to keep the flow, or a kind of more than human movement, between the micro and the macro on going; creative transversal doings activates different dynamical ways of making, interacting, playing and emerging.

Ants as a collective are living architectures that are immersed my creative process as micro, more than human forces which activate across practices explorations that weave collective web techniques. David Hu and collaborators at the Georgia Institute of Technology have been researching ant architecture as living architecture in which “ants are the bricks and the brick layers.” Fire ants build towers and bridges to escape their enclosures and float floods. They generate Ant rafts. The insects can escape floods in their habitat by assembling into rafts made up of up to 100,000 members. These buoyant structures, can float for weeks, enabling the colony to survive and find a new place where to rebuild it.
When you drop a group of ants into water they form a blob of insects that spreads into a rhizomatic like structure: each ant walks randomly on the surface of the blob until it hits an edge or counterpoint where they grab to it. Ant rafts have a remarkable strength and flexibility. Hu’s team peeked inside the structure, using a computed tomography to revealed that ants weave themselves into something like three-dimensional Gore-Tex, a fabric that is both breathable and waterproof. A finely-woven network, with a clear transition between one and the other. There is an interesting connection in this weaving, a kind of movement of networks that is able to generate, a certain topology of knots. The collective of ants form air pockets, creating highly floating rafts which are made of 75% air. It is interesting to see how enabling constraints in an ant ecology under conditions of chaos, activate and move through a process of self-organization toward an “emergent attunement.” A concept from Erin Manning and Brian Massumi (2014, 113) which comes from relational attunement of coming- together in a joint effect, and moving beyond what was felt but unsaid. This happens simultaneously with a flow and in an ongoing process, this doesn’t happen as a match, they are on their own level, and in a manner all of their
own. These improvised compositions, such as those seen in ants, suggests a co-emerging event, that enters into a pattern of the flow. From a broader perspective these collaborative processes can be seen as composing new forms of relational life.

The weave of the ant fabric is held together by multiple connections among individual ants, which orient themselves perpendicular to one another. Ants have the ability to act as either a liquid or a solid they activate self-healing structures such as bridges capable of sensing and mending cracks, they use their own bodies as building blocks to create a smooth and expedient path for their collective. Fire ant rafts and bridges are built based on strength and flexibility. As soon as an ant senses a gap in the road, it starts to build a bridge. These techniques set in place propitious initial conditions, and also alters the amplitude or frequency of the event as it moves. The Georgia Institute of Technology work shows that ants build and disassemble bridges according to changing needs. They show that the structure’s properties, such as strength and flexibility, grow and respond with ever changing conditions. If a creative field is open, it emerges from experience and its forces are potentials of events that are simultaneously emergent and more than human. These forces are a recombination of a network of relations that intensify a web of shifting elements where remarkable triggerings appear. Thought-things are force fields connecting objects, time and space. Thought-things in their possible different spatial relations depend upon the different durations involved. As Whitehead argues we just perceive the events that compose things that are interconnected to propositions and relations; these activate events not things. The continuum of thought-thing activates the nexus of experience through which a singular set of potential relations becomes an event. The import of such relational couplings is that they invariably open thought to dynamic encounters, out of which emerge thought-things, or what Whitehead calls ‘potentiality for process’ into ‘actual occasions.’ (1938, 43). “Actuality” is
the decision amid “potentiality.” It represents stubborn fact which cannot be evaded’ (1938, 43). Stubborn facts limit and provoke, the infinite potential of thought and provoke the creation of a new singular nexus of experience.

Whitehead speaks of time-parts and space-parts which are given in the stream of perception, and are part of relations between sense objects, or in my case sense things. “Thoughts in the concrete are made of the same stuff as things are.” (James, 1912). Thought as technique. It activates and adjusts the passing from pure experience to the nowness of the event’s actual occasion. “The things in the room here which I survey, and those in my distant home of which I think, the things of this minute and those of my long-vanished boyhood, influence and decide me alike, with a reality which my experience of them directly feels.” (James, 1912, 20). It allies consciousness to the pliable thought-object of which the event is made. Conscious experience is the event, thought and object collide.

A singular worlding occurs as emergent from more than human forces in network of relations; it cannot capture everything that is in relation, and thus many of its movements remain unexpressed. The becoming of an event within a collective doing, makes the more than as co-compositions of thought in the doing and things in the making. The form taking of a more than human field translates and then reconstitutes its elements in a new order, a kind of oscillation that is grounded some how. Such a network, as part of an event, moves continuously across many processes, while jumps between other creative rhythms and unfoldings are being registered. In this registering maybe, flash agents related to the flash in the pan for shallowness and the flash in a sound byte. Flash agents propose transversal more than human tendencies between modalities of thought that allows modes to engage with another without first relying on already constituted relations. On a transversal plane encounters, on a more than human context,
shifts occur in a tangible way amending thresholds of perception and activating new forms of intermedial relations.

**MINOR TECHNIQUES – GESTURES**

What can be described as rhythm comes to the fore through techniques for invention. It is important to diphasize these as modalities for creation of resonances where what converges is more than the sum of its coordinates. Modalities for creation are permeated with rhythms, they move with the machine’s own forces of recombination. This rhythm in a machinic way, redefine what a body is, and even more so, what a body can do. A machinic assemblage is a kind of organism, causing pure intensities to circulate, and attributing to itself subjects that it leaves with nothing more than a trace of an intensity. An assemblage, in its multiplicity, necessarily acts on semiotic flows, material flows, and social flows simultaneously. There is no longer a tripartite division between a field of reality (the world) and a field of representation (the artwork) and a field of subjectivity (who makes it). Rather, an assemblage establishes connections between certain multiplicities drawn from each of these orders.

Deleuze and Guattari write:

“It is the machine that is primary in relation to the technical element: not the technical machine, itself a collection of elements, but the social or collective machine, the machinic assemblage that determines what is a technical element at a given moment, what is its usage, extension, comprehension, etc. They have internal (and not intrinsic) characteristics relating to the respective assemblages with which they are associated” (1987, 397).

To understand the relay between technical element and machine, it is useful to be aware with Guattari’s concept of the machinic. For Guattari, the machinic expresses forces of
creativity: “A machinic assemblage [is] an assemblage of possible fields, of virtual as much as constituted elements, without any notion of generic or species’ relation” (1995, 35). Machines demand life, they process always in the realm of the more than, constantly recombining and capturing forces in their undergoing. Machine in the sense that cuts, assembles, and produces intercrossing material and social fluxes. It fills the holes and gaps of potential, continuously reorienting the quality of relations through the act of folding. Technical elements and the machine constituent assemblages they presuppose and enter into. They have internal characteristics relating to the respective assemblages with which they are associated. A desiring machine, “Deleuze and Guattari designate that is the affective force that pulls deformationally forward toward creativity: desire” (Massumi 2011c, 73). Desire as a transformational pull that activates a relational field with a tonality of affect-feeling. It is a process of inventing machines of movement such as machines of walking, of painting, leaping, flying that take up all manner of objects. Taking charge of desires and of assuring their continuous connections and transversal tie-ins.

Techniques are caught within variable assemblages of the human, the animal, and things, a constellation where open fields predominate. Technique touches on how a process reveals itself as such. It is constructed by parts, places, conditions, and encounters of techniques are irreducible to their individual parts. Art doings are interrelated similar as nature, they are connections between singularities of matter, blocks of sensation and traits of expression, these are interconnected as play forces whether they be natural or forced.

The essential relation is no longer matters-forms (or substances-attributes); neither is it the continuous development of form and the continuous variation of matter. It is now a direct relation material-forces. A material is a molecularized matter, which must accordingly "harness" forces; these forces are necessarily forces of the Cosmos. There is no longer a matter that finds its corresponding principle of intelligibility in form. It is
now a question of elaborating a material charged with harnessing forces of a different order: the visual material must capture nonvisible forces. (Deleuze and Guattari, 1987, 342). 

Singulaties of the re-thinking of matter, blocks of sensation and traits of expression are in relation to what is experienced this in conversation to what is created of a previously unfelt sensation that now permeates the welling occasion. In the doing, there is a direct experience of each occasion transindividuation. “This direct experience of the event as transindividuating—as more-than—is more important—and longer lived—than the form the bodying has momentarily taken. This is what makes the movement event propositional. Form is fugitive.” (Manning and Massumi, 2013, 78)

Minor gestures are immersed and attuned to the force of the in-act of creative techniques. For Manning a minor gesture is related to “bringing thought into contact with its limit, activating a tendency already in germ and emboldens it toward an altering of what that tendency can do. A thought less concerned with the certainty of what it knows is more open to the minor in thinking, more open to the force of the as-yet-unformed coursing through it” (2016, X).

“The minor gesture is the activator, the carrier, it is the agencement that draws the event into itself. It moves the nonconscious toward the conscious, makes felt the unsayable in the said, brings into resonance field effects otherwise backgrounded in experience. It is the forward-force capable of carrying the affective tonality of nonconscious resonance and moving it toward the articulation, edging into consciousness, of new modes of existence.” (Mannning, 2016, 7).

This minor movement is not a technique, it triggers forces of form, it activates change collectivity in different phases. Minor gestures are immanent to the process, internal variations. It affects not only what something can become: it modifies what thinking can do. It gives importance to the processual uncertainty of thought, yet unformed, and gives that thought the space to develop collectively. This gesture may pass almost unperceived but transforms a field of relations. It is crafted by the concept of Gilles Deleuze and Félix Guattari have termed ‘minor
literatures.’ For them, a minor literature is not ‘small’ but that which cuts through. Minor, here is referring to their recurrent call for the expression of minor becoming, the deterritorialization of language, and the collective assemblage of enunciation. Like the micro, the minor moves across scales; it is transversal, it moves through the event. This activates lines of flight within a practice that has the capacity to make visible the minor tendencies in whatever the process is or may be. Manning says that to craft a minor gesture, it is necessary to create conditions so emergent possibilities can emerge or become perceptible (2016). It has a capacity to make a shift felt, and is a variation in experience that deeply alters the ecology of experience. Transdisciplinary art practices are a way that minor gestures open up and activates tendencies that in turn create effects in experience that affect both what moves, and what can come. This process is often imperceptible or on the edge of feeling. Manning writes “The minor is a continual variation on experience. It has a mobility not given to the major: its rhythms are not controlled by a preexisting structure, but open to flux. In variation is in change, indeterminate. But indeterminacy, because of its wildness, is often seen as unrigorous, flimsy, its lack of solidity mistaken for a lack of consistency.” (2016, 3)

In co-composition playing with minor techniques and gestures, moves the doing of the event in divergent directions, altering the direction where the event might otherwise be stable. (Manning, 2016, 3) Minor techniques are operational, they articulate how experience can come to expression. In research-creation composition with the minor gestures requires techniques for transdisciplinary experimental engagement, attuning the process to the force of the in-act. There is a tentativeness in the act, this jumps at the chance to discover what else the event can do. The act in the doing moves and jumps into other possibilities depending on the event in process. These practices need to be engaged and composed at the edges of the process. Minor techniques
activate and draws research-creation events into what art can do. In these techniques the minor are becomings and collective assemblages in the doing enriching transdisciplinarity fields and experiments. These techniques bring together practices and other ways of doing from different disciplines, exploring a variety of existing realms of thought and practices. Opening up to a variety of modes of doing and thinking. Minor techniques move the unconscious toward the conscious, creating a resonance with creative fields of affective tonalities, or a kind of echoing, that moves toward an articulation and an activation of new modes of existence by delimiting, re-appropriating modes of knowing from modes of making within the minor.

I am interested in what happens on the micro level, such as self-organization and emergent collectives, and how transdisciplinary creative doings trigger more than human interconnections in art. The Last Breath, one of my collective art projects based in Real del Monte, Hidalgo, Mexico, was part of a workshop called Rapid Collaborative Practices, and was a collaboration between local artist, students, professors, community members, and ex-miners. This interdisciplinary art installation consisted of diverse transversal layers. In Deleuze and Guattari’s language, in an event there are always “lines of flight” which are immersed in tendencies and movements that extended processes. They follow their own arcs and they move in different directions. The Last Breath was developed to investigate how micro techniques emerge and change within a milieu. The work was an interdisciplinary collaborative project which explored the local mining process. It has been proven that mining provokes a lung disease called Silicosis that is caused by inhalation of silica dust and marks an inflammation and scarring in the form of nodular lesions in the upper lobes of the lungs. Over time this can harm the ability to breathe.
For this collective art project 14 ex-miners individually donated their breath, which was captured and contained in a petri dish (see figure 3). Each petri dish was incubated for three weeks in a homemade light box. All bacteria and micro-organisms need humidity and a sugar source to continue their dissemination. In the first week bacteria started to become evident in different places of the surface of the petri dish displaying a variety of colors, textures and imperceptible aromas. By the third week the bacteria changed colors, spread, modified their dimensions, format, and textures. Each petri dish was totally different from one another, they were emerging within diverse layers in the container. Bacteria is in soil, rocks, oceans, snow. Some live in or on other organisms including plants and animals. Bacteria and other self-organisms in these experimentations are ephemeral, mobile and more than human, that create sites of dissonance and open experience to other modes of expression. In this creative process the micro spreadings permeated other transdisciplinary threads of variability and in turn these
variations triggered new forms of existence. These ephemeral forms of life travel through the everyday and activate modes of perception, inventing rhythms that speak in the interstices of my creative processes.

Figure 2.4. *The Last Breath*. Close up of petri dish with bacteria Siglinde Langholz, 2018

In this transdisciplinary project, the bacteria grown from each ex-miner breath self-organize and shift, in a minor process, to a continual variation on the experience of the micro. It has a mobility and its rhythms are not controlled by a preexisting structure, but is in flux. In this creative process variation and change are indeterminate. In such a process, bacteria comes into their own, with the body ever on the move. Bacteria are inventing modes of architecting, out of everyday movements. These participatory ecologies sense landing sites which are dispersive and forceful.

This indeterminacy is interwoven with other processes in its wilderness, because of its often-uncultivated wandering. In relation to these observations Glissant writes “errancy follows
neither an arrow like trajectory nor one that is circular and repetitive, nor it is mere wandering-idle roaming. Wandering, one might become lost, but in errantry one knows at every moment where one is-at every moment in relation to the other” (1997, XVI). Errantry is also a thought of what is relative, the thing spread as well as the thing related.

When speaking of the event’s potentiality and the application of minor techniques, the work of Ali Momeni is of particular note. He has been transforming ant self-organization into emergent and transdisciplinary art works. He works, improvises and engages in the intersections of physics, music, performance, health. His collaborative installation art project *The Tragedy of the Commons* is an expanded kinetic sculpture in which a colony of between fifty and one hundred thousand ants live and forage. This installation consists of a live experiment where emergent ant choreographies are activated by the reaction to certain flavors and smells selected by Momeni and Robin Meier with the help of the Laboratory of Comparative and Experimental Ethology of Paris 13 University. The installation is structured via three circular boards, all directly connected to one another or through video surveillance and sound. Contact microphones and cameras, set up on its entire surface, amplify the sound of the movement of the ants. Additionally, a couple of monitors in the installation offer a means of closer observation and live playback of the ant processes. On the sonic level, the amplified sound of the installation relates to the ant’s activity, for example the more the ants are responsive to a certain flavor, the more sound is generated to signify the responses.

In this kinetic installation, ants are key because of their emergent and self-organization behavioral characteristics. The foraging of the ants as acts of collaboration and cooperation are always in play. Given that ants are always immersed in processes of cooperation, they have a potential for self-organization. Under constructed circumstances of the installation, these insects
self-propagate movement, like open source, peer-to-peer sharing, in collective, provoking, and self-affirming “ways of life.” *The Tragedy of the Commons* establishes the potential of the colony to co-compose and activate more than human creative and collaborative relations.

Figure 2.5. *The Tragedy of the Commons*. Robin Meier and Ali Momeni
Watch: [https://vimeo.com/26704693](https://vimeo.com/26704693)

Figure 2.6. *The Tragedy of the Commons*. Ant process close up
Robin Meier and Ali Momeni
Techniques and counterpoints processes in transdisciplinary art are building blocs and compounds of sensations, which determine more than human co-compositions. Deleuze writes (1996, 183):

“Animal, plant, and molecular becomings correspond to cosmic or cosmogenetic forces: to the point that the body disappears into the plain color or becomes part of the wall or, conversely, the plain color buckles and whirls around in the body's zone of indiscernibility. In short, the being of sensation is not the flesh but the compound of nonhuman forces of the cosmos, of man's nonhuman becomings, and of the ambiguous house that exchanges and adjusts them, makes them whirl around like winds. Flesh is only the developer which disappears in what it develops: the compound of sensation.”

Creative processes are interwoven with more than human encounters and are correlative, activating emergent sensory qualities, that in the process make possible a transformation of functions. This expressiveness is already diffused in daily life encounters (Deleuze, 1996). Self-organizing creative practices activate dynamic encounters in which there is a constant flux of movement and material. Massumi (2014,17) mentions that movements are animated by a tendency that surpasses given forms, and these are activated by an impulse toward creativity. This impulse of spontaneity is significant for it is an element that spins and activates creative practices allowing them to escape coded language constructions. Instinct can trigger itself, even in the absence of any stimulus. Ruyer (1958, 147) characterizes this ability as “hallucinatory,” in the sense that it is “improvised directly” on the act of perception. This capacity of spontaneous improvisation is not a mechanical process but instead it is a first degree of a continuum of nature. Massumi says that it must be considered as a necessary dimension of all instinct. It is more a self-expressive movement of the sensible whose mode of existence is an epiphany of way of life. Deleuze writes that art affirms “a self-movement of the expressive qualities,” this intermixes multiplicity and diversity of beings. From the point of view of this philosophy of nature, art is an important event of natural forms. It is immersed in explorations of natural phenomena across
different kinds of natural entities; the abstract machine of stratification and destratification acts within processes of formulation, coding/overcoding/decoding. There is a double direction to Deleuzean nature, towards unity and towards dispersion, towards capture and towards escape. Aristotle on the side argues about motion, causation, place and time.

“Nature propels the philosopher into mankind like an arrow; it takes no aim but hopes the arrow will stick somewhere. But countless times it misses and is depressed at the fact.... The artist and the philosopher are evidence against the purposiveness of nature as regards the means it employs, though they are also first-rate evidence as to the wisdom of its purpose. They strike home at only a few, while they ought to strike home at everybody—and even these few are not struck with the force with which the philosopher and artist launch their shot.” (Nietzsche, 1983, 177-178)

Art must then be thought of in a “more than” ways, triggering artistic events and spaces for transdisciplinarity into creative worldings. Self-organization and swarm techniques can be interwoven as a kind of research-making process, to activate other modes of doing and to trigger nonlinear dynamics; opening up manifold potentials, revealing patterns, thresholds and intensities that are part of transdisciplinary art doings.

Patrick Drechsler and Walter Federle (2006) mention that ants use sticky pads at the ends of their feet to attach to surfaces and enable them to link to each other to build three-dimensional networks, whose properties are sensitive to applied forces. With some tests using rheometers (devices to measure a material’s resistance to deformation), the team of David Hu, has shown that ants are shear-thinning like paint. This kind of mobile and living architectures surpasses itself and exceeds its form, the question here is what transdisciplinary art can do with more than human processes such as these? Ants embody transversal and non-linear modes of activity, triggering in my art making a myriad of questions and openings that unfold in relation to emergence and dynamic processes in between worlds of moving-doing. Relation is not made up of things that are foreign but of shared knowledge. Relational dynamics are multiple and triggers
micro and macro non-linear transdisciplinary creative movements. Manning writes (2009,10), “techniques for invention must remain on the plane of composition.” “They must remain intensities- in- the- making, force fields for future thought.” These minor techniques are driven by some specific need to move, they relay on actions and events. Whitehead mentions that process involve the notion of a creative activity belonging to the essence of the occasion in the event. The transformation of the potential into the actual is a “process of self-creation.” “Such transformation includes the immediacy of self-enjoyment” (1968, 151). This goes from the barest of activity; to event and change; and then to potential and the production of the new. What can be described as coming to process as becoming. Process as becoming is not just creative activity, it is self-creation (Massumi, 2011). Beyond this, self-creation is “enjoyed.” The self-enjoyment of experience, belongs to the essence of every creative occasion. It is important to weave relational techniques in every creative layer and rhythm interconnecting life. Living not just in human life per se, but inclusive of the more than human; life at the interstices of experience in the bionetwork of creative practices, that which is an extended field established through a relationship with the other.

**BIOGRAMS - SLIME MOLD ENCOUNTERS**

“Everything just goes along as if, at the moment it entered into the poetics of worldwide Relation, ready to replace the former hegemony, collective thought working within the language chose to cover up its expressive relationship with the other, rather than admit any participation that would not be one of preeminence.” (Glissant, E, 1997, 23)
Discovering new creative rhythms (possibilities in the moving) in transdisciplinary art doings, whether they be a series of trajectories or networks, follow one another and expand in diverse paces. Collective relations in between disciplines (to put a name to them) in an event burst like webs in many layers, inscribed within diverse tonalities (variety of tones) of art processes. This diversity, makes difference possible, activating more than human creative tendencies that are latent, open, multilingual and directly in contact with everything possible. These relational tendencies and intensities in art making, trigger other fields and dynamic sensations for future thought.

In a transdisciplinary process, biograms can be seen in relational interweaving, or resonances that provoking bodily doings. They introduce new ways of intermedially composing a body in between sculpture, installation art, and bioart. The biogram is what conjugates rhythms of appearance and disappearance for the becoming-body–art. This term is significant for understanding creative explorations in relation to bodies in motion in art doings and the intensity of life welling. A biogram is moving life across the folds of surfaces of experience in the making. It is a resonant path of the virtual/actual of pure experience, appearing as a tonal difference that pushes the body not as content but as crystal of potential. The biogram constitutes not a unique body, but a body-emergent across series in the doing. These have rhythms of speed and slowness, rhythms that are alive and in relation to the movement moving. This force of becoming interweaves affective tonalities that transpires into a continuous mutating form. Meanwhile, a diagram makes felt the force of a textile art, and the biogram propels a moving with the body. Manning writes:
“The emergence of a biogram is not the creation of a static body. It is a virtual node out of which a bodyness can be felt. This feltness of a body is an affective experience. It is the tendency of a body to become that the biogram makes palpable” (2009, 124).

Biogram is closely related to Deleuze and Guattari’s concept of the diagram. From diagram to biogram is a passage through a different abstract machine, one connected to the techniques of appearance and disappearance of a becoming-body. Think of the diagram as an architecture of ideas and these procedures refer to processes that morph.

![Figure 2.7. Michel Foucault’s Diagram and the Topology of the Fold. (Deleuze, 1988, p.120)](#)

Diagrams are a range of practices based on adaptable, and changing modalities of process topology driven by the in-act. For Deleuze, it is necessary to recognize the primacy of multiple forces upon the form which are obtained by a difference in potential. For Francis Bacon a diagram (Deleuze, 2003) is a feeling for the painting that moves with its force in expression. Deleuze defines the diagram, via Francis Bacon, as “the operative set of asignifying and nonrepresentative lines and zones, line-strokes and colour-patches” (2003, 101). Diagram as being capable of “unlock[ing] areas of sensation,” proposing that a diagram is “chaos, a catastrophe, but . . . also a germ of order or rhythm” (2003, 102). In this sense, a diagram is
defined as the connective forces that maps out an artwork’s intensity. This is referring to does fields that resonate beyond the image. These fields beyond the image acquire relation to the body, whose lines of flight bring in relation sensations and tendencies in resonance. A diagram is full of potentials. These forces take on an unexpected movement that expand in all directions; these intensities are activated in different viewpoints at various speeds. In this they are boosted up, thrown in the air, in-flight from which they suddenly fall. "Graph" or diagram for Bacon is as “if a Sahara, a zone of the Sahara, were suddenly inserted into the head; it is as if a piece of rhinoceros skin, viewed under a microscope, were stretched over it; it is as if the two halves of the head were split open by an ocean; it is as if the unit of measure were changed, and micrometric, or even cosmic, units were substituted for the figurative unit. A Sahara, a rhinoceros skin: such is the suddenly outstretched diagram. It is as if, in the midst of the figurative and probabilistic givens, a catastrophe overcame the canvas” (2003, 100).

It’s a diagram of the active process between directional tendencies and their textures. In this case it is diagram out of which a taking-form emerges and how perceptibility moves creating relational matrices. These creative potentialities and interrelations as well as relations with others are active, fluctuate in speeds and degrees, triggering inflection points and landing sites within the emergence of other worldings. It becomes operational through a layering of backgrounds and prior events, foregrounding my processes and practices, resonating together as becomings of my ongoing world. Creating emergent compositions that move across and in the middle of a series of research-creation events that play within different velocities and shifts activating emergent live diagrams in the making of creative encounters⁹. To a certain extent, these aspects remove

⁹ In my approach and working with textiles for a while now, biograms are in relation to diagrams folding in the doing of my creative explorations.
creative expression from the already limiting optical organization that rendered it figurative in advance to other ways of doing. A diagram is also a germ of order and/or rhythm; it exists as such in relation to a new order of creative processes found in transdisciplinary art approaches, installation, textile art, and bioart. As Bacon says, it “unlocks areas of sensation.”

Deleuze and Guattari suggest that a diagram is in fact an abstract machine, that “constitutes and conjugates all of the assemblage’s cutting edges of deterritorialization” (1987, 141). What they mean is that a diagram is a technique or series of techniques for open conjugation of intensities. The diagram operates at the middle of creative compositions, where the virtual is felt in Deleuzian terms as a force of becoming. Manning and Massumi extrapolate this term toward what they call “biogram” which is defined by Manning as that which “propels a becoming- body.” She further expands on this stating “This force of becoming is a re-convergence of affective tonalities that transpire into a form that is itself continually mutating. Whereas a diagram makes felt the force of a painting, the biogram propels a moving- with of the ontogenetic body” (2009, 10). Massumi writes that “biograms cannot be described without resorting to topology: centers folding into peripheries and out again, arcs, weaves, knots, and unthreadings” (2002, 188). These are usually conceived as dimensionless planes between the eyes and objects in the world. Additionally, biograms in an event are always in operation. Although they appear in front and in the midst of things, the biograms are larger than the visual range. (2002, 187). During the “Last Breath” process (see chapter III), it takes form as a body-becoming of sounds of the movings of microorganisms. What vibrates and moves is not the body as such but its interval. The moving microorganisms change in form like sound vibrations. The interval is the provocation to transduce, to become- across in a shattering of absoluteness in the event. Biograms work in more than human encounters as lines of flight referring to the energy
that breaks through the cracks in a control system and moves on into diagonal, revealing open spaces beyond the limits of what exists. It activates all possibility of escape; it is the intangible moment when change happens, when a threshold between two rhythms is crossed. Line of flight also Fuite\textsuperscript{10} means “the act of fleeing or eluding but also flowing, leaking, and disappearing into the distance” (1987, XVII). In collectives it is an active process in diverse dimensions. It foregrounds an affective tone of the event rather than a body as such. The creative becoming-body has no fixed form. It creates space through both intensive and extensive movement, appearing momentarily as an elasticity of the almost. Biograms are conjunctive forces that gather an artwork’s intensity and triggers a push, pull, folding and unfolding of lines, marks, colors, rhythms in the act of doing. This operative process in art making is a redistribution, or what Simondon calls a transduction. It is referred to as a dynamic operation by which energy is actualized, moving from one state to the next, in a process that individuates new materialities.

Transversal art doings potentialities trigger diverse intensities that in turn resonate through techniques that facilitate movement into and out of immersive art fields. A collective transdisciplinary artmaking event proliferates in fields where there is a differential\textsuperscript{11} attunement\textsuperscript{12} with others. This process is embraced in the immediacy of creative processes, but it is different in each case. Biogramatic slime mould techniques trigger different qualities of speeds and slownesses. Slime moulds movement is not a sequence of points; it activates emergent structures and behaviors as networks. In my work there is always immersed a variety of transdisciplinary processes where play, scales, tones and rhythms are sparked. These ecologies are in relation to group forming process, sometimes they are complex structures that are linked interactions, not as

\textsuperscript{10} A Deleuzian term interconnected to Lines of Flight.
\textsuperscript{11} Refers to the fact that each encounter in the event enters from a different angle, and moves in or out of it, individually.
\textsuperscript{12} Denotes to the direct capture of attention and energies by the event.
a centralized regulator, but as something emerging. For example, slime moulds work by sensing and interacting to their environment, sending out “protoplasmic tubes” to create links among resources, back and forth across this collective network in movement. Weavings in between slime molds moving is reveling textile gestures in my creative process. Triggering spores that accelerate as forces into creative fields where breaks are in the midst of filament galaxies assemblages.

Figure 2.8. Slime Mould. Close up Physarum polycephalum.

Photo credit Audrey Dussutour

Slime moulds have interesting swarm foraging patterns, they fuse and become one. These organisms are relational and flexible and they are moving networks that self-organize in diverse layers, folding and unfolding. They move across and crawl slowly into something like gelatin laced bridges. Slime moulds can be cut into many pieces; once they’re put back together, they fuse and make a single giant slime mould, with vein like tubes forming in between pieces as they
connect. They emerge without central coordination. These moulds form clusters of spores, often on the tips of stalks like mushrooms do. Spores from the sporangia are dispersed to new habitats (Macbride, 2017). They move as the event of foraging unfolds. These super organisms are closely related to the spatio-temporal dynamics. Slime moulds have rhythmic folding and unfoldings that underlay dynamic network formations, activating fields that move boundaries, which then generate elastic forms. These organisms flow, leak, and at the same time, disappear depending on the stimuli cause by diverse scales of pulsations. Each pulsation is interconnected to the rhythm of its neighbor. They use this process to transfer information around the network. These ecologies grow in all directions interconnected as webs, constituted biogrammatically or diagrammatically in the sense they are tweakings of emergent tendencies within a co-emergent field. In my creative work for me slime molds have been really important because their emergent processes and their moving-flowing in between an event, they are constantly reorienting, inventing new modes of life-living. This for me and my practice are really important pulses, opening the way for new tendencies to emerge. In words of Manning

“The movement activated, in the event, by a difference in register that awakens new modes of encounter and creates new forms of life-living. Life-living in its usage throughout refuses to privilege this life, this human life, at the expense of different forms and forces of life, even as it recognizes the importance of the punctuality of this singular event we call our life. Life-living is a way of thinking life with and beyond the human, thinking life as more-than human.” (2016, 8)

This ecology operates on the level of the in-act, asking at every juncture what else life could be. Emergence is connected as a point of inflection to a wider field. This can be seen in the work of Eduardo Reck Miranda a Brazilian composer at the Plymouth University at the United Kindom. He and his team designed a musical bio-computer that translates electrical energy generated by movement and the vibrations of slime moulds into sound. When the piano keys are
played, the cultured slime mould responds by changing its shape, and this movement activates electrical energy. By capturing the electrical energy and transforming it into sound, this new technology allows the slime mould to provide responses to Miranda’s creative process.

![Image](image.png)

Figure 2.9. *Biocomputer Rhythms*. Photo credit Plymouth University
Watch video: [https://vimeo.com/111409050](https://vimeo.com/111409050)

The signals sent by the slime mould trigger electromagnets that activate the vibration of the piano strings. While playing and co-composing Miranda and the slime mould, work as a collective, each time provoking different emerging sounds. The slime mould immersive process is hard to predict and varies from mould to mould. Some of the composer’s collective techniques are interconnected to pitch, duration, loudness of each note, and the time between notes. Miranda is interested in the attunement between human and non-human encounters as active tools in between approaches drawn from science and art. Eduardo’s processes are interconnected to events that creates their own stakes, their own limits in which he must continuously to be aware to engage, flow and trigger other relations.
In transdisciplinary art practices it is important to remain attuned to every creative process, you have to be attuned to how the field is affecting you, even as you are affecting it, and one needs to be open for unforeseen alliances. It is a kind of a double becoming, where you are being modulated by the collective field as much as the field is being modulated by our actions. Experimenting, adventuring, taking risks in more than human orchestrations, with different speeds and slownesses, we can trigger co-emergent art ecologies. These can be fields of resonance where related milieus emerge through the co-existence of ecologies within different scales and intensities of time. This in an art process may in turn expand beyond the singular outcome, which has been called by Manning the interval and explore the immanent co-existence of a relational third. When this becomes an active part of what the event constellation can do, the force of collective individuation happens in the interstices where the ecologies are still in active transformation. Within these creative ecologies the activation of techniques are important which will enable mobiliity and will bring to the fore a kind of living species diagrammatic praxis. This relational field is active in more than human encounters where the alteration of partial points of entry are potentially amplified or resonated throughout the interval field. Transversal and relational intervals trigger new ways of being in the world, activating a sense of being that is more porous to possibility. In my practice, more than human collaboration in the interval is key in helping to develop new relational patterns, rhythms, speeds, folds and unfoldings in transdisciplinary events.

Nikolaus Gansterer’s art processes are about moments of activation in between intervals of different materialities that are increasingly porous. His processes draw from networks, biograms and more than human orchestrations. The artwork is actualized to become alive in relation to, or in reference to, the constitutive elements of the event. His creative making has a
relationship and conversation between the choreographic and the improvisatory. Gansterer, works with the materiality of the objects and the compositional propositions they potentialize; these are interconnected in a relational field in between creative movement. His work emerges in the event where transversality triggers across minor gestures exploratory techniques for non-linear ways of doing in compositions.

Figure 2.10. *Objects Yet to Becoming*. Nikolaus Gansterer, 2017. 

Nikolaus Gansterer’s art work is immersed in qualities of listening, the care for the relation, the curiosity about other tendencies and/or gestures. Transdisciplinary encounters, or processes, such as these activate in my own practice a multilayer of technicities, provoking translations between science, art, relational architecture, and live forms of doing. Gansterer’s practices as prior examples, trigger in my art making forms of being and emerging within notions of collectivity. His process proposes new emergent interconnections within materiality and technicity; his work activates potential encounters in creative processes that transform what might seem as “alien” forces into possible relations beyond the more than human.
combines thinking and drawing with actions a thought in the act. His thinking become intricate as lines in space through which the traces of time and the creative process expand momentarily. He explores the potential of expanded drawing and with fragile materials like chalk, wooden sticks and wire as a means of communication, as a musical score, as a manual and an instruction for again taking action. We can see this in his piece *Space in a Space with the Traces of its own Making*, where Nikolaus’ drawing becomes a chance to make thought processes visible between science and art. For Gansterer, the desk and the room becomes a drawing lab of sorts, where he develops a series of experimental settings. These processes become steadily materialized in the form of fragile installations and mobile objects and are thus translated back into the space. What is also of my interest is the process of the emergence he plays with, which for me is key in his process. Which brings me back to slime mould technics, trigger in the event relational materiality at its most vibrant movement. In this there is an immersion of live forces that gather different intensities of folding and unfolding in and out creative encounters. Applying this operational process in art making, is a dynamic moving where new materialities reveal their forces, seeding other potentials in relation to my creative encounters.

The becoming of the event activates an ecology of what is emerging. This resonates into ecologies of experiences, not only in relation to diversities but also overlaps that may trigger unknown movings in the on-going of the event. I consider that accidents are happening all the time in minor ways. Dispersing and unsettling movements that inflect something as simple as a shift in attention, even a wink, they are a kind of micro-shock that forces us to re-establish focus, refresh our relational field. This dynamic potential activates the ability to move, to flow by altering the bodily pathways and processes of the event. In a creative process these are most of the time similar to refractions and recombinations in the doing, either breaking down and/or
enlarging forces and movements. These impulses and intensities in a relational field activate differential attunements, it’s more an intensity of movement, and of processual attention. Reactivating depends on the conditions of the event and by the field in which it intervenes. We’re constantly re-composing our experience in diverse relational layers out of these interruptions. Within the accidental there are other possible varieties of relational emergent architectures. These relational and smooth architectures activate different modes of proliferation and differential attunements embodying different processes of engagement.

Trees communicate with each other as networks or webs of relationships. Oak and beech trees of the same species are communal, and will often form alliances with trees of other species (Wohlleben, 2016). Forest trees have lived in cooperative, interdependent relationships, maintained by collective movements similar to an insect colony. Some scientists led by Christian Körner are calling this ‘wood-wide web,’ referring to the fact that each tree is connected and communicated to each other through underground fungal networks. For example, they send signals about drought and disease, or if an insect attacks. Scientists call these mycorrhizal networks. This fine, hair like root tips of trees join together with microscopic fungal filaments to form the basic links of the network, which appears to operate as a cooperative relationship between trees and fungi. To communicate through the network, trees send chemical, hormonal and slow-pulsing electrical signals.
Edward Farmer at the University of Lausanne has been studying the electrical pulses, and he has identified a voltage-based signaling system that appears similar to animal nervous systems (he does not suggest that plants have neurons or brains). Monica Gagliano at the University of Western Australia has gathered evidence that some plants may also emit and detect sounds, and in particular, a crackling noise in the roots at a frequency of 220 hertz, which is noiseless to humans. Trees also communicate through the air, using pheromones and other scent signals.

Watch: https://www.ted.com/talks/suzanne_simard_how_trees_talk_to_each_other
“Funes not only remembered every leaf on every tree of every wood, but even every one of the times he had perceived or imagined it. . . . I suspect, however, that he wasn’t very capable of thinking. Thinking is forgetting differences”.

Jorge Luis Borges, Funes el Memorioso

What is significant here and worth taking note of, is that the world beyond the human is not a meaningless process; “rather mean-ings—means-ends relations, strivings, purposes, telos, intentions, functions and significance—emerge in a world of living thoughts beyond the human in ways that are not fully exhausted by our all-too-human attempts to define and control these.” (Kohn, 2013, 218). Such understandings involve different way of facing slime moulds, ants and forests ecologies in a transversal art making encounters. Being aware of difference and otherness
are key in more than human interconnections and relations. This helps us to rethink relationality in ways that can take us beyond our tendency to apply relational processes to many possible ways in which the more than human might relate. Ants, slime moulds, *bryozoa*, bacteria, in my creative explorations, trigger emergent processes, where networks have relational process that create and connect encounters of tending forces, rhythms, thoughts, experiences in my world. These in turn amplify and reveals on going interconnections in between zoology, architecture, textile art experimentations. These relational fields are full of potentials and active openings in my creative weavings. But at the same time, they can be limited in the sense that there are certain points beyond which my creative process does not go. There are thresholds beyond which it flips into a different field of relation and when a threshold crosses a new relational field rearranges.

In my art practice more than human interconnections are grounded in otherness as different states of being which are alien to the social identity. Further, they are separate from the symbolic order of things, it goes into, and in relation with the emergence of things. The process of making activates other encounters with bacteria, ants, slime molds seeing these as possibilities of emergent and living textiles that go beyond linear interactions. This helps me to rethink relationally and in ways that go beyond my tendencies to be inclusive of diverse potentials and processes applicable to a creative event that might relate to textile constellations. As described in this chapter these processes of rethinking also relate to ants, slime moulds, and bacterial living architectures. These processes are also immersed in my creative rhythm where interconnected transversality is shown in microscopic threads and weavings. They are ultimately central in my research as mechanisms for creating open fields between art, science, architecture and where the traces of each process persist as part of my ongoing making. Emergent processes for self-organization and co-creation, such as found in slime molds, are fundamental for my transdisciplinary art explorations. Relations that provoke flashes of textile movement, or
foldings, (these are also seen as proliferators of unfoldings), and mappings of movement permeating overlapings, crossings, cuts, rhizomatic relations processes.

Transdisciplinary practices must recollect their own uniqueness. At the same time, when they do come together, as with research-creation this needs to be a fertile field for thinking, or coming into-relation. Every practice is interconnected with a set of different techniques that create a possible fissure or break in the doing. In my creative practice these fissures help to bring transversal and transdisciplinary techniques into textile art and installation art. I seek in my work a way in which propositions are activated as potential breaches; openings that are co-composing within my creative practices. Propositions that are capable of agitating processes, experiments, dynamics and that move within creative inflections. There are embodied propositions as well as co-emergent relations in my research-creation practice that are part of my thinking and informs me in each transdisciplinary force-field that I explore. Forces and materials rather than form and content. Every force and material in my creative practice is porous, as in weaving and sewing they flow and activate bodily movements and gestures. Each movement and force in my transdisciplinary processes is interconnected to relations that infuse more than human experiments.
CHAPTER III

RELATIONAL SPASMS: A TRANSDISCIPLINARY ART PRACTICE

This chapter covers my dissertation research-creation propositions. These are situated within transversal experimentations and draw from diverse fields such as biology, architecture, textiles, and art installations. Textiles and materials of any form have a very special place in my creative process for they should be seen as working as actors. In my practice they activate creative transdisciplinary possibilities that challenge and enable a new set of techniques for artistic articulations and they are the means by which thought-thingness comes together in my art propositions.

TRACES IN THE PROCESS

What immediately follows, as well as throughout this chapter, are a series of notes, which I also consider as kinds of mappings or diagrams, that embrace a mix of sensations, rhythms, traces, and orchestrations in my work. They should be seen as possible landscapes that are part of forces in the doing. They act to produce foldings and unfoldings within different creative speeds and intensities and act in between relations of technicities. These notes are also shimmerings of active and unpredictable possibilities; echoes that spark potential shifts. They germinate my transdisciplinary world-making triggering momentums that take shape in various forms in my work. I see these notes/diagrams as new multiplicities of research-creation, emerging from collective orchestrations of creative events.
Transdisciplinary creative encounters growing as “nodes” that are commingled into “networks”, within a broad spectrum of perspectives, including urban studies, biology, architecture, topology, biograms, textiles, diagram, philosophy, and rhizomatic openings…

**Spores are spewed from creative processes, moving on into other living architectures combinations.**

![Figure 3.1. Moving spores and living architectures](image)

weavings in between slime molds

fold into fungal lunging swoops

reveling

as minor textile gestures.
everywhere I turn, simultaneity a dynamic is happening, space is being made at all times, open space. It reshapes what I assume to be and the position I assume (becoming attuned).

**Textile, space and form as porous matters.**

cut a slice of space, I find it to be full of holes (it is porous…)

particles accelerating as forces
bending, wrapping into intense
fields where holes are in the
midst of filament galaxies
assemblages

the holes exist as something that
pulls rhythm, forces, textures,
twistings, layers. The gravitational
pull is simply so colossal that at
a certain proximity, nothing can overcome it.

The porous event horizon trigger
thresholds that re-shift spectral
threads toward greenish, orangish
of the wave happening

attractor detectable only through its doing

porous groupings as topological spaces, where a
family of spaces (fibers) varying continuously
over, lopping, twisting...

space as an assemblage of living tissues that cohere

in diverse layers that overlap into open intervals
Figure 3.2. Sense of Space. Olafur Eliasson, 2011

Fibrations that activate mappings of becomings that rolled together into cracks and fissures in surfaces.

Biofilm a collective of one or more varieties of microorganisms that can grow on many different surfaces.

structures – architectures that are breathing,

they are living tissues.
Emerging creative encounters of prosaic or dazzlingly replete nature
of the everyday which are tools, material with which I go to work.

Nomadic compositions; expressions of space
that offsets the dynamism of textiles scattered

Active fibrations become living tissue mappings

Bacteria spores activate foldings
emerging in between colors, textures, smells, dots that bounce and echo as they move, dance, vibrate

flashes in between bees, ants, slime molds, bacteria fibrations, intensify creative encounters, it is like a body is manifesting in their processes, as a feeling of phosphorescence
to trace out what that difference might make

material   s p a c i n g s
fibrations, neighborhood of nodes that sprouts exponentially in the flow

bumping

sliding on boats propelled by winds that cut across in, over, on the side, in the midst

lurching and tossing in relation to a much vaster horizontal sprout

matter at its most vibrant process, the nonhuman at its most alive it interconnects the category of human and non-human altogether

“Material thus has three principal characteristics: it is a molecularized matter; it has a relation to forces to be harnessed; and it is defined by the operations of consistency applied to it.” Deleuze and Guattari (1987, 345)

From writing-with to dancing and breathing, from more than human conversations to mapping ways of flowing into the moving of materiality of art intensively felt. “as a bee waggle dance”
The world of creative processes echoes (feedback, repetition), and chaos (spiraling), this will depend on our many ways of sensing and addressing it.

It is necessary to unlearn space in order to embody space. It is necessary to unlearn how we see in order to see with our bodies. It is necessary to unlearn knowledge of our body in three dimensions in order to recover the real dimensionality of our body. Let’s dance space. Let’s re-space our bodies. Let’s celebrate the felt feeling of presence.

Olafur Eliasson, Unlearning Space – Spacing Unlearning

crispness of degrees of the relation in transdisciplinary events
Potentialities of foraging within loopings, waggings, and vibrations as a roaming friend

Transdisciplinary encounters as a kind a wave making, shifting as smooth processes into manifold spaces.

following and bouncing

force to force that moves a body to express its intensity

Manifolds which are not unit tangent bundles. They are forces, tensions that fire up a web of constellations filtrate as a flirtation in between

Ways of flowing in an art processes thrive in material-relational becomings. Bouncing forces within manifolds ……

turning in their openings, the head rotating on its neck, the neck twisting on a torso, and the legs mobilizing the entire event (human + environment) into a
continuous, flowing array.

scales, perceptual affordances, and emergent encounters

I am a bundle of charged particles released into a fractal “infinity conductor.”

what manifests the mutation of light from "natural light" to the "Enlightened"
is the substitution of belief for knowledge—this is a new infinite movementimplying another image of thought: it is no longer a matter of turning towardbut rather one of following tracks, of inferring rather than grasping orbeing grasped. Deleuze what is philosophy

- creative interconnections with more textured relations
- explorations that move around and beyond textures and fibers
- doings that are influenced by the micro relations

They stretch across the space, it moves with an outside, inside, in between itpropels the tuning.

bouncing spores

shifts and sprouts, shrinks and propagates
always alert to possibilities

Emergent and self-organization relations take on in my practice very diverse forms interconnecting textiles as encounters of possibilities

I am living with them, as an horizon that I always touch because is limitless it is just over there, over here, on my side, inside, always morphing

vanishing points that became, in the practice of mappings, loopings and flows of moving spaces

Textiles are intensities, transformations, movement, space, multiplicity, differentiation - sensations experienced by familiar bodies in resonance with the world, compiling into a world that I have built.

Invisible but very felt strings, stretch and traverse my worlding as thread movements
"seeding scatterings"
fly, floating, in the midst, of landings. As spores that create experimental extensions and relations in a field of creation where the event of the doing excess form or figure. spreading matter and materiality as expanded and extending floating arrangements that trace visual and invisible lines altogether

swarms of micro-vortices in propulsion float as water in between creative processes that scape from limits, it is really tasteful

Everywhere I look it still moves, all the time, in visible and invisible ways.
it fades in and comes into experience as an orchestra of strings, filaments, on the move.

Activating mobility in the doing, gathering processual occasions, attractors to whip around interruptions and wend their way to mobile, blinking, elastic processes that play and explore with, and between, materials, processes, forms.

events within events, as there are forms within forms, up to the shift of the path of the sun across the sky and down to the breaking of a twig. Hence there are no elementary units of structure
continuous stretching, twisting, crumpling, bending, flickering

breaking away, spout out to seek

interconnected relations, strange attractors, loxodromic filaments in relation to a moving event – “Thread Topology”

Microorganisms as fields within a biofilm can leave folds and establish themselves on a new surface

Fibers in flux that pass through a creative process as a continuous colleague that activates many layers of explorations around transdisciplinarity

infinite-dimensional fieldings in relation

links between nodes in emergent networks, as a variety of materialities that sprout dynamic processes of multiple relations.

dynamics-practicing a self-break and a reconnection
the shape and materiality of networks in interrelating organisms
often form nodes and other networks of exploratory webs

it is a relational intensity gesture, this creative language is an operational gesture, and immediate force of doing

explore borders and the in betweenness form of experimental practices
where art, science, architecture, cease to move through intensity even
more than through narrative, provoking other ways of engaging with
the as yet unthinkable

“Look through a microscope: every-body is permeable
and porous, host to and hosted by trillions of other life
forms. The body is a transitional ecosystem; it can’t
survive in a vacuum.”
Wilk, 2018, 13

and then I roll into filaments, wallowing, passing through membranes, unexplainable world is revolving.

a stone, a living being behaves flexibly
in relation to its environment. It maintains
an active relationship to its environment.

activate the force of its coming-into-being. It will be a representation of itself you have to reinvent.

My creative process is composed of a sort of fungus that releases tiny spores into the air where a variety of dimensions for experiencing more continuous with and related to an environment generates a practice that becomes permeable and porous, hosting many other life-forms in the process. These bodies are transitional ecosystems that dissolve into it…

collective creative practices are continuously searching for techniques that allow me to foreground openings in an event creating its own forces for exploration. An ecology of practices that continuously interfolds the inorganic with the organic, shaping experience in the making.
UNFOLDING COMPOSITIONS AND PROPOSITIONS

For me there is a kind of call to action or challenge: *Let’s work with process*. I especially seeks to seed techniques that enable emergence in the doing, and that I feel are necessary for a collective creative experimentation that leads not only to new forms of collaboration but to new forms of life-living. More broadly than just my own work, this needs to be thought as enabling a new set of techniques and constraints for the collective articulation in a creative and transdisciplinary process. A second challenge is that it has to continue the event. Collective relations become a field and the tissue of creative networks, including what *may* happen and encounter with other fields, are fundamental in that they go beyond the more than human. My research-creation process seeks more than a re-articulation of linear ways of practicing. It seeks a means of triggering emergent creative events that can conjoin transdisciplinarity experiences moving them beyond their seeming possible limits and driving process into becoming. A third challenge is seemingly simple but profound, paying attention to potentials.

Thinking-feeling is interrelated to differential understandings, each process follows its particular tendencies. These differentials are attunements that occur across individual differences. In an event, there are many differential tendencies that come together to create the unfolding of a very complex field that is both collective and transindividual. I want to emphasize that my creative techniques are intended to activate relational fields in the doing; nothing is done in a vacuum. These techniques are also not pre-determined or pre-established. The relations that connect experiences must themselves be in relation and any kind of relation experienced must be accounted as “real”. Each experience in my acts of creative making becomes a modality for new processes of thought/doing/feeling, they individuate co-constituting the event in process and are
shaped around the actualization of potential. Such an approach activates a new set of relations, sparking new modes of thought and doing. This push, pull and elasticity of potentials in a creative event are unpredictable, but always exist in relation with my doing. These creative worlds are interconnected by a series of emergent relations with different affective degrees and tonalities. I also see creative process as tonalities of movement.

The making is where experimentation remains open. There is always a sort of landing onto a site/node, the experiment becomes an actual occasion; it lands somehow into something. Landing sites are not discrete units, they are intricate and overlapping. “Organism-person-environment consists of sites and would-be sites. An organism person, a sited body, lives as one site that is composed of many sites”. (Gins and Arakawa 2002: 5) These landings parse a world into distributions. Art making is not necessarily located at self-contained temporal nodes, each one of these have connections to what has gone on before and will happen afterwards. Creativity lies in its context, its surroundings, which means it is also outside the drawing. Drawings activate present futurities of an environment that have come to notice the movings, thoughts, and doings of a body. A drawing can specify edges, cracks or fissures in the ongoing processes which activates thingness. Thought-thingness bump into the not-yet in the midst of a node’s actualization. This relation happens not in the actualization of the node, but in the connective tissue of its tending-to. For me then the node is a possible landing for the becoming-event. It makes possible the unfolding of creative encounters in an event, even within enabling constrains, that feed a constellation of potential art articulations.

In an art making process there is a matrix of continuous/discontinuous tendencies and articulations. They are in between open intervals and are the intermedial spaces out of which events emerge. Within these intervals there is a potentiality for a different kind of connectability.
This maybe be activated by a shift where a connective tissue of a different network may activate another event or relation. The shift may be seen in a need to get out the studio and go for a walk, which in turn may lead one to eat something which then again may lead to a color that may lead to a texture, or a movement, and so on. As such shifts, flickers or appearings, there are a proliferation of in-betweens that pop up. Knowledge comes to life inside the tissue of experience within sensible realities. It is made by relations that unroll themselves in time. These relations transpire in a field of the felt which moves knowing as in transit and on its way. Knowing is not an absolute or end-point. It is a modality where the coincidence of thought and thing produce a feeling for immanent relational potential. For this very reason my creative encounters are always folding, unfolding and cutting across or through constellations of thought/feeling/doing/thing. These are connective tissues of networks where dynamic flows, or stream-like movements, are transitions and relations in the process of art making. They trigger flights and landings that burst relational encounters in the event. It is the differential between processes that our experience has a series of variations of rate and of direction.

Creative relations, depending on the event in process, may trigger shifts in the doing interconnecting a diversity of possible tendencies. They are charged with bodily reactions, as sticky and elastic filaments into the layers of which I insert forces that cause them to disconnect from each other and begin to flow like a fluid. This kind of alteration is embedded in the relation between techniques, forms, and materialities. Art as an experiential process, is the core of perception and action. This way of making art implies experimentation, creative explorations, collaboration and involvement rather than passive reception, or distanced observation. Through my art work process, I emphasized the felt feeling that potentializes emergent ways of making. I also focus on the interconnections between ecosystems, materials, textiles, biological materials
such as slime mold, and all in relation to processes. Within these new assemblages emergent tendencies in the making are interconnected. Tendential events breed openings in the way that continuities and disjunctions create conditions for their own potential gaps. These events trigger new patterns which are altered by difference. Indeed, transdisciplinary art approaches in my work encounter many particles, which are activated by its movement. In fact, they move from one process to another in diverse rhythms. My art doings are always in conversation with organisms, environments, filaments, and emergent weavings.

My world as perceived and my worlding as acted on.

Within this world there are many possible relations that go beyond the more than human. Each one of these relations have a transparency in which connections are spread among them, redirected, and re-embedded within a fabric of processes. Linking and re-linking bodies and worldings to one another, through a newly conceived architecture, the world becomes potentialized with inclusive actions and surroundings as a different creative world and into which, in a variety of ways, it extends itself. For me everything interconnects; acts of breathing, taking the world in and out in an almost imperceptible pace; becoming world and becoming ant, slime mold, becoming other. Rearrangements of the world are apparent in the midst of the doing of things. What emerges from these emergent ways of doings, nonetheless is a strong collective sense, an ecology of practices, techniques of relation, shiftings, conviviality, and processual propositions.

Maybe an orchestra of shapes, textures, colors, rhythms.

Spreading electrical activity in my hands which spike as electrical events.
An open ocean of possibilities curl, unfold, expand.

There is a mapping of arcs of electricity, a network of events that charges flow into a potential of forms expanding nodes, smaller and lager than ants.

They moisten an event of filaments, fibers, where these do not match up.

Filaments move quickly and now slower, these are increasing their frequency as if space, as if traveling and opening spaces as they come and possibly arrive.

Filaments keep going and moving in between the seeding.

Filaments as artistic frequencies that keep expanding as a slime mold and as experimental doings activating unstable and unpredictable structures that other can inter- relate.

These extend from the smallest subatomic particles through viruses and bacteria.

They on go as living processes and materials forms.

Organic movement in between the milieu as metamorphic beings, relations, fields.

Living forms in process. Becoming other…

Human and non-human events are permeable and porous, host to, hosted and in relation to many other life forms. Relational possibilities actually occur as I activate my processes. These unfold in the going without ever existing separately, **bifurcating as rhizomatic filaments that are interconnected with inflexion points and forces**; like micro and minor encounters they move across and through a variety of scales. Being in relation in many layers. There are traces that twist, fold and unfold deeper (than the things happening on the exterior), creating a derived possibility between the interior and the exterior. Whatever lies between the interior and the
exterior there is a liberation of forces, a transitional ecosystem, a porous world full of holes where words and things are opened up non-coincidentally by the environment and milieu.

In direct relation to my universe of makings I consider that other doings need to be activated as possible strange new forms, that might appear as occasion totalities; they simultaneously have multiple forms of a transdisciplinary art and practice. These triggers form for me heteroclite organisms (half plant half animal). The image I am trying to convey here is an image of a creation, a process that simultaneously unravels multiple encounters which in the process might become invisible. Different organisms in my practice have been activate inspirations. For a while now, I have been wondering how would nature, bacteria, slime mold, bee processes within their organic and self-organization procedures, and as such work inside a gallery. This said because, I personally prefer transdisciplinary art doings for they are accompanied by shifts, failures, error, openness, emergence, rather than rigorous art production.

My explorations and art articulations have been immersed in a process of yet-unknown relations between embodiment and the difference in the world of human and non-human approaches. Which of course differs through its scale and rhythms as it escapes from any formal canons. It triggers a form of self-organization and emergent processes that erupts into possible relations between aspects such as process philosophy, emergent architecture, zoology, biology, transdisciplinary art. Emerging from a diasporic alternative textures, shapes, and even sounds as a form in amidst of spaces where there arises a series of movements of another sort of flow traces in an endless trail of leaks in between practices and arises a series of movements of another sort.

In my art production there are always layers of possibilities through which I seek to discover unpredicted positions between and among a variety of forms of life. These forms are fibrous bodies that many times they are cracked in the process, to transform the modes we
explore, perceive and interact between humans and non-humans. They recoil into creative appetites as a kind of a slime mould like creature or seaweed flowings as electrical impulses in my art doings. In fact, everything around me is fluctuating; there are sets of enabling constraints, and this dynamic aspect of a world comingling comes to exist as transitional parts of artistic engagements. These modes of existence are thresholds that I cross through and cause unfolding modes of relations between human and non-human dynamics. This appetite requires an attunement to become, as a central aspect, fluid. This is what Whitehead calls ‘the lure for feeling,’ the call, in experience, for that which has the capacity to reorient the field. Art work that proceed with the moving. Experience dwells in us through its effects, the affects. It is with its living presence that empathy takes place. By living our body, the forces of the world impregnate us, creating seedlings of other worlds.

My artistic doings are composed by effects of forces, with their diverse and mutable relationships, that blend in the vital flows of my world. These forces traverse bodies and are means of establishing interrelationships. The bodies are in a continuous variation, or acts of relating. The germination of rhythms, textures, colors, filaments, are triggers in my creative doings, creating movements of shapes and forms of my world making. These are not made in opposition to existing forms, but as a process of creative germination that triggers collectiveness in the process of the event. These are dynamic encounters that create collaborative potentials by interweaving multiple network connections from distinct situations, experiences, and languages. Thus, what is created are temporary relational spaces, varied and variable, where collective synergies are produced. Part of this process involves acts of composition while simultaneously engaging in individual and collective creative potential fields necessary for the emergence of
events. Further, in such a process other modes of existence and their respective cartographies take shape.

**FEEDMIDST LAB**

As my PhD research practice continues to investigate more than human collaborations I have been immersed in many explorations related to encounters with bees. In this context I have been working on a project called *Feedmidst Lab* a mobile laboratory that works collectively in between biology, philosophy, self-organization architectures and art installation. This is an alternative, collaborative, and movable space that interacts and engages with the diverse communities in México. My art practice is situated in between the intersection of art, science, and the environment. This project emerged as part of an exploration and research practice with a focus on bees, and particularly on the hexagons they produce in a honey comb. Wax hexagons are an emergent form. Bees insert their body into the wax they are creating at the beginning they are forming a circle. With the warmth, the movement, and the diverse rhythms and forces within bees bodies the circle starts to become an organic shape, a hexagon.

![Figure 3.4 Circular honeycomb.](image)

![Figure 3.5. Honeycomb after bees forces a hexagon honeycomb.](image)
Bees use heat to make honeycomb from beeswax. Like many kinds of structures, beeswax expands and contracts with changes in temperature and movement forces. Rather than remain circular in shape, the beeswax in a honeycomb changes into a hexagonal shape when heated by the movement and all the forces are released by the bee’s body. Feedmidst Lab within relational movements activate emergent forms, which always, in the act of doing, re-invent art-science propositions in the event taking place.

Relational movements as the honeycomb event also relates to the Basalt Prisms that are located in Huasca, Hidalgo, Mexico. Basalt prisms are inverses or negatives of a honeycomb. A structure that forms in rocks, that consists of hexagon columns that are separated by joints or fractures in the rock that formed when the rock contracted, most often during a cooling event. When the lava cools, it contracts. To understand this better think about balloons. Balloons tend to droop overnight, partly, because the helium in the balloons is escaping, but it’s also often because the gas inside the balloons cools down, the gas escapes slower, and it contracts with the cooler night time temperatures. If you put the balloons outside in the sun the next morning, they will pop back again as the gas inside them warms up, and expands. It is a relational event. When objects flows fold rapidly, there are cracks or fractures. When contraction occurs at center points which are equally spaced then a hexagonal fracture pattern will develop. If flow of contraction is not even, then other geometries will be formed. This flow varies depending of many other forces, movements and rhythms. The fracture pattern will tend to be propagated vertically, creating layers of columnar jointed rock; each force brings form into being. In the case of Feedmidst Lab the hexagon is a repeated form which is activating in my practice flows that trigger expansions of
organic and more than human movements in between disciplines in the ongoing of mobile laboratory.

Figure 3.6. Circle forces expanding forming hexagons

Figure 3.7. Hexagonal Rocks

I see something, and I attend to it, spending time with it, acting on it, it ultimately became a piece of me. It re-activated my practice, and my moving in the world.

Developed as an integral part of my dissertation research the Feedmidst Lab is a mobile lab is a 6 x 6 x 6 foot hexagonal nomadic structure that is flexible space designed to open up, expand, or collapse and be movable depending upon the needs of an interdisciplinary artistic engagement or produced events. Being a modular system, Feedmidst Lab has the possibility to be extremely flexible in regard to architecture, space, and even as a work of art. Built from
wood, aluminum, sailcloth, and other fabrics Feedmidst Lab is similar to a shelter, one that people can interact with. This space is comprised of a small greenhouse, a beehive, an ant farm, two expandable and collapsible wood tables, felt cushions, a chalkboard, glass containers, and other components.

Figure 3.8. Feedmidst Lab, Sketch

This mobile laboratory was created with the assistance of community members, using materials from local businesses in Mexico. The purpose of the mobile space is to look at and explore a variety of practices, including Mexican textiles process, fermentation practices, encounters with insects and a range of daily processes within the community. With divergent creative events as a focus of my praxis, from looking at cultural textiles and local social
traditions we aim to produce a variety of new creative events for the public. Every two months, *Feedmidst Lab* hosts a range of activities to experience, as well as look at textile and food system in new ways. For example, when someone enters to the hexagonal space on one side there is attached to the aluminum wall local natural fibers with a catalogue of documentation of some textile mills. Additionally, a series of yarn elements are interwoven so the audience may connect the yarn with another object, form, texture.

Some of the intents of the *Feedmidst Lab* are to enliven narratives, draw attention to processes and create events. This mobile space creates and enhances a unique urban experience that aims to create space for dialogues that go beyond the limitation of scientific disciplines or practical concerns. It is a transdisciplinary mobile laboratory that shifts away from the traditional idea of laboratory and acts instead as a mobile space free to move from surface to surface (opening up from the ground to the tree, for instance). The technique, the lab is not the shelter as such, is a way to make the idea of laboratory mobile. The flexibility of the space is part of its technicity, and what arises through the *Feedmidst Lab* emerges across modalities of its deployment.
Most of the creative events for Feedmidst Lab will be, and have been, related to textile systems, community, interdisciplinarity, and emergent processes. The space includes video projections, sound projects, exhibitions, interdisciplinary workshops, trade sessions, food sessions and textile workshops. Feedmidst Lab is an interdisciplinary and participatory mobile space with open-ended activities that generate socially-engaged art experiences such as trading fermentation sessions and textile interdisciplinary events. This creative laboratory is designed to provoke experiments; it integrates both the structure and the organic unfolding of the process, as part of an ongoing event. For the textile related interdisciplinary events the hexagon space opens up, walls are converted into floors using these as support for two-person waist looms. At the same time textile fermentation experiments are happening in another area of the structure where the structure is in dialogue with a digital projection and some experiments from designers, children, parents and crafters.

*Feedmidst Lab* asks and invites the community to touch the materials, to be part of the event process. This is a collective project that proposes to engage through collaboration within the community members (children, educators, parents), local artists, farmers, urban planners, designers, crafters. *Feedmidst Lab* also generates networkings, workshops and talks. The purpose of this project is to activate open relations, conversations and experimentations within textiles, fermentation and insects. Collectively, each event/experiment is archived in some way. The traces archived are carried in each process of *Feedmidst Lab* and into the events which have been activating shiftings in the making. The intension is that this documentation process will interconnect and activate other future encounters and engagements.

Contrary to some art installations, *Feedmidst Lab* allows and encourages the community to interact, manipulate and explore the processes and events highlighted in the creative mobile
laboratory. This mobile space is a relational project that explores ongoing hands-on collective participation. *Feedmidst Lab* is also interested in how kids, artists, scientists, architects, and farmers can interact in interdisciplinary and participatory art projects. This includes events once a month such as soup gatherings (exchange creative ideas and projects), trading fermentation sessions, and interdisciplinary workshops that generate community engagements and active changes. The hexagonal space is placed in diverse spaces so the community has several opportunities to access these events. These events are intended to spark and encourage the community to create new relational actions. As an interdisciplinary artist, I try to activate actions into multi-layered relational forms and structures. Through collaborations such as those given here this project challenges experimentation and on-going processes, thereby creating and enhancing experiences and transdisciplinary experimentations. *Feedmidst Lab* builds upon two projects that were created collectively and relationally since 2014 with Johanna Carnis and Benjamin Burpee.

**SPAZ.LAB**

Spaz.lab, the first project, was a mobile bicycle driven laboratory that contained drawers, magnifier glasses, notebooks, microscopes, petri dishes, projectors, books and other tools that changed depending upon collective needs and the specifics of field-based experiments. *Spaz.lab* was a transdisciplinary mobile laboratory devoted to experiment with waste and ecological systems.
Figure 3.10, *Spaz.lab*

Figure 3.11. *Spaz.lab* on the move
EXPERIMENTAL COMMINGLINGS

The other project, also in 2014 and in collaboration with Bethany Engstrom, was *Experimental Comminglings*; a participatory art installation/laboratory where the audience interacted by altering and experimenting with the materials in the artwork. This work, presented in an exhibition at Waterfall Arts in Belfast Maine, commingled art and science, permitting the exchange of new ideas and explorations. Furthermore, this art installation was a laboratory in which participants are able to experiment and create in order to become part of the transformation of the installation. This Installation, was well received by the community and many educators, artists, designer and students participated.

![Experimental Comminglings](image)

Figure 3.12. *Experimental Comminglings*
Figure 3.13. *Experimental Comminglings* Detail

Figure 3.14. *Experimental Comminglings.*
Detail educator Alexis Iammarino experimenting with the installation
Experimental Comminglings was activated by the re-collection of vegetable root samples, such as carrots, and cabbage. This installation activated new dialogues within art and the environment by using natural materials to create an experimental immersive lab and its success was emergent from the way it embraced and exchanged creative engagements with the Montville and Belfast communities. In retrospect Experimental Comminglings engages, relates and responds to environmental, social, and transdisciplinary artistic explorations, permitting emergent community encounters and propositions. A group of students took materials from the installation and activates a pop-up art-science mural.

Feedmidst Lab is an alternative mobile space that activates and crosses paradigms, as well as responds to environmental and artistic changes through community engagement through spontaneous improvisations. It references more than human self-expressive movements of modes of existence of life triggering artistic events and spaces for transdisciplinarity explorations into creative worldings. Self-organization and swarm techniques are interwoven as a kind of research-making process, designed to activate other modes of doing and to trigger nonlinear dynamics. This mobile laboratory is designed to foster transdisciplinarity and to activate participatory engagements. Feedmidst Lab is a discovery space that embraces risk and curiosity to engage with unknown processes and experimentations for personal meaning, social engagement and participatory art.

Feedmidst Lab and Experimental Comminglings are projects that self-emerge and self-organize without any series of preset rules; the events and the place are all existent as potentialities, and the lab is intended to trigger other non-linear layers between practices rhythms. Opening up interstices of experience in the bionetwork of creative practices, with relational tendencies and intensities in art making, triggering other fields for future thought-
making. Experiments start from the middle: somewhere between the doing, observing, smelling, touching, fermenting which are creating links are created among collective networks in movement reveling somehow textile emergent gestures and assemblages act in my creative process. Such emerging encounters, activates in me what I think of as electrical responses that trigger a feedback of shifts in awareness that in turn lead to spatial and temporal oscillations and orchestrations. The interlacing of filaments of bodies, landscapes, topographies, and experiences, in my research investigations take me on explorations through textiles and it’s shifts that emerge between interconnections and surfaces with non-human speciations. My creative work engages with materials of all sorts, with variable properties, and is enlivened by the forces and the co-mingling properties of creative making.

Within my investigations and the generated artworks I am really interested in how they flow and how, in particular, they can flow within the process of the event in the doing. For me when I am creating something it is important to follow such flows, tracing the paths of form-making, wherever they may lead. The movement along these paths should be seen as creative and as an improvisatory joining as part of transdisciplinary processes. In between these pathways or trajectories relations between one thing and another unfold. As part of this process filaments, or connections, continually come into being as part of a meshwork of interwoven activated threads of processes between materials and forces. Processes and rhythms leak in my practice, discharging unexpectedly into surfaces encounters within and around them. The flows of materials respond in their movements to the currents as if activated by the wind. In a perceptual state, potential emergence move as possible actualizations that may not only be self-propelling but also effectively, indefinitely productive, because it works from a virtual cause whose potential is immerse to a collective actualization.
In my creative engagements I take pulses into emerging relations at different layers in the doing through more than human interconnections and potentialities. These creative interrelations are active, they fluctuate in speeds and degrees within colors, materials, textures and movements triggering inflection points and landing sites. Transversal art doings trigger potentialities that in turn resonate through techniques that facilitate movement into and out of immersive art fields. A collective transdisciplinary artmaking event proliferates in fields where the differential attunements embraced the immediacy of the creative processes.

In this way I experience these processes, as part of an act of feeling and living, and come to know potential interconnections to the contextual milieu. In my research and creative work there are a number of aspects, or activations that are of import, these include: swellings, extensions, porousness, filaments, cracks and cavities.

Weaving together. Co-emerging and ever-evolving a weave, through porous surfaces of emergent forms; things leak.

LAST BREATH

The Work Last Breath (2016) is a relational and collaborative interdisciplinary research project, designed to instigate social and environmental processes. Working with ex-miners of Real del Monte, Hidalgo, Mexico such as Constancio Hernández Martínez, José Cruz Hernández, Julio Oliver Labastida, Vicente Amador Crescencio the intention was to create an orchestration of sounds as vibrational encounters with the bacteria. This project came out of a workshop that I gave in an art residency in Real del Monte, Hidalgo, Mexico, an ex-miner town
and the only partner to the town of Cornwall, England. Within this project, breathing and exhalation processes where part of our investigations, especially how these processes can be heard in a lived experience. In an event activated in the Sindicato de Mineros de la Compañía Real del Monte y Pachuca we set up encounters where each one of the twenty ex-miners shared personal memories, stories and practices in mining. There was also an exchange of drawings and tunnel maps of the mines. As part of the project we collected the breath of twelve ex-miners with glass petri dishes that where held in a mobile laboratory constructed to transport samples. All the folds in this event activated in Last Breath, generated an interdisciplinary dissemination between Art, Science and Technology.

Figure 3.15. Last Breath. Drawings and tunnel maps of the mines
We incubated the captured breath for three weeks in a homemade incubator. The results were fascinating; the layerings, colors, weavings, porousness and the emergent forms seen in each petri dish was striking and each day for a month we took a photo of each petri dish. Meanwhile there were other small gatherings, where we activated non-linear audiovisual and sound pieces based on real-time configurations of the bacteria collected from each ex-miner’s breath. Emerging from these events, we collectively decided to installed some resistors and small speakers into each one of the petri glass dishes, to read and hear the movement and formations of each community of bacteria. In real-time the immersed resisters read the information that was coming out of each one of the petri’s, activating an emergent system influenced by the bacteria - microorganisms vibrations. Each layering of sound variation is in correlation with the type of data that is recollected by the resistors. What the viewer experiences is a series of ranges of
pulses that emerge depending on the environment the bacteria are in and surrounded by. These diverse vibrations activate sounds which at times seems like the sounding or electric impulses. These tones may be a little deep, something like what you might hear inside an airplane, that seems to grow in intensity. They are also interrupted occasionally by what sounds like the pluck of a musical string, and eventually a heartbeat-like rhythm emerges even deeper in tone. The sound changes in tone and pitch, but that original low rumble remains, this seems as if they are in relation to the rhythm of a beating heart; it is like you where hearing arterial flows of blood and then they propelled, just as the inhaling air into a vortex through which we then breathe out. These several rhythms are layered and it is uncanny, but could also be perceived as relaxing in its rhythm, depth, and complexity.

As part of my long interest in the relationship between science and art, this work includes biological explorations focusing on in part how can we hear the movements and rhythms of microscopic living organisms, as well as how can we translate the bio-electrical activity of different organisms into an orchestration in transdisciplinary art making. In the Last Breath, the energy relations and flow unfoldings of the ongoing moving of bacteria are translated into electrical energy, and this in turn generates a sound signature of, even what might be considered a voice for, bacteria. Microorganisms communities exist largely out of sight, they may be small, in terms of impact, but they activate many events of life. I am passionate for these complex organisms, which exist in and around us; we live in relation to their frequencies, vibrations, emergent layering, revealing different modes of activating creative encounters. A menagerie of bacteria is a delight; as experimental remains of artistic explorations, that carve or leave traces as layered webs of rhythmic and arrhythmic relations, these multiplicities of emergent nodes flow into art matter. Bacteria and slime moulds are really fascinating, they are continuously changing
in shape in response to external stimulation and due to interactions of thousands of micro-
oscillators in their body they may disappear in one moment to the other.

Figure 3.17. Last Breath. Reading the movement of the bacteria.

Within emergent bacteria and slime moulds, rhizomatic and never-ending orchestration
of vibrations and more than human potentialities they trigger in a collective layering co-
composition of vibrations, activating audiovisual sequences and dynamic translations as part of
transdisciplinary processes. Bacteria and microorganisms activate something in relation to
electrically conductive nanowires that produce as what I call biotextiles. Living textiles in the
moving. The Last Breath exhibition, displayed living artworks of vibrant colour, texture and
form, using naturally occurring bacteria these are placed onto a 3m wood light box table. Also
included in the exhibition was a mobile laboratory comprised of equipment and glassware
provided housings for a series of microcosms, an interactive “cookie table” where the audience
could eat from provided cookie and by leaving their remnants be part of it, a documentation
station (figure 18), and a wall piece where you can see a portrait of each ex-miner in twelve metal cans (figure 17).

Figure 3.18. *Last Breath*. Metal cans with ex-miner portrait.

Figure 3.19. *Last Breath*. Documentation station with samples.
Figure 3.20. *Last Breath*. Light box table with an orchestra of twelve petri glass dishes.

_Last Breath_ is grounded in engaging with self-organization and ecological scopes where organisms expand and contract, encroach and retrench. They may bump into one another, aggregate together, even meld into larger weaving like ants webs floating over a flow of water where torsion, flexion and vivacity emerge and/or escaping into the event. Elements such as these dissipate through a constant flux of rhythms and materials into dynamic art assemblages. More than human collaborations as part of transdisciplinary processes and techniques are significant for the very fact that they challenge my artistic processes. This collectivity might be invisible but very felt filaments traverse the world as movement happens.

*Becoming Breath, Becoming bacteria orchestrations, Becoming Air*

fusing together
The Last Breath project was exhibited on two occasions, one in the Museum of Labor Medicine Nicolás Zavala in Real Del Monte Hidalgo that also included a talk given by ex-miners gave a talk about their time as miners in the different mining sites (some worked at Dificultad, Acosta others in Purisima for more than 10 years) and they also presented with me the artwork showed in the exhibition. This project became for them as a trigger for further talks with the government about their actual legal situation and it helped to open up interesting conversations between local designer, artists, scientists, technology and social researchers. In its larger effect it was a provocative transdisciplinary project for families, entrepreneurs, students and academics of Real del Monte. Another outcome of its significance, Last Breath was invited to be exhibited in the Transpiksel / Arte - Ciencia y Tecnologia Libre at the University Nacional Autonoma de Mexico (UNAM). This Art, Science and Technology art festival moves every year to a different country in which 44 artists local and international are selected to show their work. Transpiksel promotes the exchange of knowledge between different disciplines. Piksel is an annual and international festival for artists, developers and inventors who work with free and open technologies that has been carried out for 13 years in Norway. In 2016 this collective exhibition involved 44 artists and/or collectives, 35 Mexicans and 9 foreigners and included 19 workshops, 14 live acts and 12 conferences. This edition of Transpiksel especially promoted projects in the areas of do-it-yourself, do it-with-others, art with live media and those that used renewable and sustainable technologies. Each Exhibition of Last Breath was presented in different ways depending on the process in the museum or gallery, the audience, the context, who it was next to and other such factors.

It should be that the help and work of the following individuals was of primary importance for the “Last Breath” project: Issac Palafox, Jesús Daniel Díaz, César Damián, Elena
In my work I am trying to find ways to interconnect experience through creative events that suggest forces through which thought-things take form. This taking form occurs where thought, doing and materials collide in an experience that activate new variations and flights, unravelling, shifting, and activating a disequilibrium. Engaging once more with, more than human relations in order to heighten and speed up particular experiences of, and approaches towards, the invisible world. The essential relation within such continuous variations of material-forces are the crossings, turning points, folds that offer emergence into these transdisciplinary dynamics.

**MENDING PROPOSITIONS**

We must create *across* practices and actions in a more than human process, triggering different ways of thinking, experimenting, collaborating. There are many tendrils and tentacles that interweave to form a boundless and ever-extending meshwork. Forces between filaments and threads are put out to see what can be captured, sort of like a fishing net that one might throw in order to see what movement, processes, techniques, are caught, or released. There is an
ecology where relations between organisms and their environments activate other layers of intersections between human processes, where thread practices either run or turns or is flowing above or below or around itself in the doing. The work *Mending Propositions* led to layering techniques of woven pattern, micro-organism electrical rhythms, folds of textures, and bacteria flights; these are open-ended processes that wrap around one another, like the many filaments of a fabric. Holes are porous, they are open spaces that are activated by individual and collective creative articulations. Textiles surfaces and movings are seen in my doing as porous matters in relation. If you cut a slice of space (textile space or thing) I find it to be full of holes; it is porous… Holes exist as something that pulls into porous transversal triggerings or thresholds that re-shift threads toward yellowish, blueish, greenish of the wave happening.

Figure 3.21. *Mending Propositions.*
Human and non-human relations in my art practice are bound or drawn together as two hands clasping. They are continually coming into being through weavings; folds reveling minor layered gestures that are constituted by force, rhythm, and shift fields where holes are apparent in filament galaxies assemblages. Simultaneity a dynamic is happening, space is being made at all times, open space, I am becoming attuned. My work propagates like organisms. The fields of molecular biology and zoology increasingly appeals to me and they open up a world which is interrelated and woven from unspooled and spooled threads assembled as collective pieces. These fields crease and fold into creative gaseous atmospheres. Forces of tension and friction, as in mirco-organisms, are generative of new forms of doing, these are held in such a force-field.

“Accordingly, our focus should be on forces and materials rather than form and content. Knotting, then, registers in a number of domains of thought and practice by which patterns of culture are sustained and bound into the interstices of human life. These include: the flows and growth patterns of materials, including air, water, cordage and wood; bodily movement and gesture, as in weaving and sewing; sensory perception, especially touch and hearing, perhaps more than (but certainly not to the exclusion of) vision; and human relationships and the sentiment that infuses them.” (Ingold, 2015, 18)

The above indicates that this is not centered just in the human sense, rather it is more an outgrowth of the porous relations that are growing as life-forms, wrapping and crossing around and in between my art processes. Expanding use of materials activate intermedial emergent layerings.
Figure 3.22. *Mending Propositions*. Close up

Figure 3.23. *Mending Propositions*

Figure 3.24. *Mending Propositions* close up plate
The works in *Mending Propositions* were exhibited at the CMCA 2018 Biennial. This piece is composed by eight layered pierced blue enamel plates and two layered plexiglass bubbles. The plates include some yellow sewing, as an organic formation of a loop, through which, within the layers of tracings paper, the tip of the line is then threaded and tightened. Paper thin and semi translucent, these layers create a complex interplay of light and shadow. Loopings are of particular interest because of the way in which an arching gestures creates an opening through which arching can be further propelled, in rhythmic or arrhythmic events. Loops and un-binding processes in this piece are in-between woven “webs” in the doing of the creative event, these are released into the doing to activate other projects.

- currents of air and vibrating cords, and correspondent sounds
- loop and twist around one another, as much as do the waggle
- vibration bee dance.

This nature of the piece *Mending Propositions* is a betweenness, it is in the constituted from layers of patching and stitching things rather than staying in a singular or linear route from means to ends. It is part of a matter to which I return to a more immediate concern; the question of how mending, within materials and doings, can be joined to activate a type of bacterial interaction, or what can be described as a reverse movement of unbinding. Tying and untying, then this lies at the core of the relation between activating, and its multiple ways of relating, and spreading the mesh of linking far and wide. For my practice creative research comes in the shape of live filaments in movement. It comes in forms of stitching, holding, releasing, and even tasting. In this work research comes in the shape of looping and unlooping threads onto my hand for thirty minutes; research comes in the shape of movable attention or relocated attention. This
process is an attempt to map, to move in the weaving and into porous things. This is one
variation of so many wiring possibilities that trigger creative doings and creative accidents.

The depth is hidden in the surface of things, it is a crucible of what appears.
Spores dynamic moving in collective

Collectively exploring other life filaments and doings breeds otherness. These other
encounters are fused, composted and fermented thereby becoming flexible and dynamic a center
point, while their ends remain loose, rooting with other filaments to interconnect with things that
are, for me, transversal and that resonate in my day to day life and activities. Out of such an
openness comes some collective transdisciplinary propositions: activation of feeding variations
of the other, a play with materiality as a connective transition, dissolution of a sense of the
individual of the participants through shared activity, and an exploration of attentiveness to
things and to the ways they want to go.

LIVING MESHES

In my creative work I seek to establish relations of day to day sympathy, alternating
tensions, rhythms of materials, techniques and processes. These possess inner feelings for one
another and are not simply linked by connections of exteriority precisely because these parts are
bound in sympathy, through their differences. Techniques, propositions, and materials triggers
expand more than human explorations and dynamics which situates my practice in the context of
an active engagement with the constituents and their surroundings. When I do art there are
relational multiplicities and diversities of beings staying in the play. Indeed, this work is not
about just doing, but is intentionally focused to be attentive and meticulous for a sensibility of reciprocal relations with the other. *Living Meshes* is a transdisciplinary laboratory exhibition where lived experiences are in constant exploration within different collectively activated relations between biology, zoology and art processes. These transdisciplinary pieces explore experimental movements and challenge conventional viewpoints, they also activate relational techniques with in the insects, plants, and textiles world in Mexico and Qatar. Living with, rather than a *looking at*, if primary; it is a form of feeling that operates in the interstices of things. Lars Spuybroek writes, ‘what things feel when they shape each other’.

In the project *Living Meshes* transdisciplinary art work making use of textiles and textile processes, emerges from a mutual shaping, within a gathering of forces, rhythmic, arrhythmical, tensile and frictional. They are activated through an engagement of the other and with materials that that retain their own inclinations and vitality. This articulation is emergent and brings together flexible and rigid filaments, that move in all sorts of intermediate combinations. This project comes from research with transdisciplinary sources and based in a variety of traditional and non-traditional practices: a waggle dance, observation of the movement of bacteria, field trips to bee farms, eating honey with the honey comb, walking in mangroves, recollecting escamoles, eating insects, searching in large ants nets, and following ants in their food recollection process. The combination and variety investigations that I have engaged in sets into practice innovative and emergent forms that shape my PhD praxis, and set a basis of work that is simultaneously grounded and unique.
Figure 3.25. *Recollecting Escamoles,*

Figure 3.26. Working with nopal (cactai) as a spoon to gather escamoles
Figure 3.27. Exploring Mangroves

Figure 3.28. Exploring Mangroves

Figure 3.29. Exploring Mangroves
Figure 3.30. Exploring bee farms

Figure 3.31. Exploring bee farms

Figure 3.32. Exploring bee farms
For me research also comes in the form of an embodiment of smells of the desert, moving in between sand mountains, flowing with the wind, as well as touching and smelling textiles collectively. This kind of diverse direct engagement is central to all my creative and research work, Living Meshes activates interdisciplinary art processes in which the audience can touch, draw, create 3D printed objects, smell, leave traces in the gallery and be part of the artwork. At the same time, such as set of engagements creates worlds that bridge scale as well as individuals, species and how they are tending toward the flickering of interdisciplinary artistic processes. Within this exhibition it is important for one to observe and be part of the movements that are happening in each community and for me the question remains, how can I in collective trigger other movements across disciplines? To try to answer this and other related questions I think of each variation and intensity, all that is happening simultaneously, all assembled and in continuous motion, spinning and moving as if bacteria. Such an open-ended set of operands suggests a way of thinking about process that Deleuze and others suggest; a constant process of losing and unfolding.
Figure 3.33. *Living Meshes*

Figure 3.34. *Living Meshes*
Far from ordinary forms of research I am attracted to a world that might have different forms, a misty world, not clearly outlined, a world in the collective making. I seek to activate new ways of working together with practices that can expand to possibilities of unthinkable interrelations and that can be traceable back to the idea of wanderings of a collective flowing that emerge again and again capturing in the middle of a relation. This is like a swarming assemblage that is reactivated continuously by the transformation of tensions and different forces act and interact in the act of becoming. Collective explorations in this exhibition begins, in a sense, with forces of the micro, activating an interesting emergent solidarity. This is what I think art collaborative experiments are: they bring to the table new ways, propositions, encounters in between and in the midst of the process of doing. They radiate into many other possibilities, releasing other type of creative tensions, torsions and flexions, and trigger relations to different speciations.

An exhibition can be a collective event that sets up various displays for things to take shape, even before they could be contemplated, before they were yet visible, they take shape from the given but in the realm of the unknown. I feel it is important to keep a flow between collective micro and the macro more than human relations for these are important for triggering different dynamical ways of making, interacting, playing and emerging. Such variety of relations provoke the formation and discovery of active connections and interrelations between actions and creative sensations. In the doing collective tones moves me toward resonances that make palpable emergent ways of exploring daily questionings and doings.

With the multiple collaborators, Living Meshes was designed with a space in the exhibition for students where they exhibited part of their encounters with the materials and processes in the exhibition. For this part we made an emergent trip to the mangroves, where we
took samples from nature. Then we observed them in a microscope took snap shots and video of what they were seeing on a micro level. After that students were asked to do first 2D designs based on what they related with what they saw and felt in the trip and process of the trip to the mangroves and also what they saw in the microscope. Later they activated their designs in a wearable workshop and then where printed in photographic paper. Subsequently they worked on 3D designs based on their 2D designs. The 3D projects of each student were printed on a 3D printer each day during the exhibition.

Figure 3.35. Living Meshes, graphic design VCU students exploring mangrove samples
It is important to mention that with these creative encounters there was a collaboration that emerged through the process. Hadeer Omar alumni and some students where really engaged in the process happening with *Living Meshes* so they decided to do short film of the process of *Living Meshes*, which was shown in a room in front of the gallery. In this same gallery micro zooming of plant cells, our trip to the mangroves, details of the workshops with students and with the community were also shown. These unexpected collaborations where really opened up other opportunities. Since “Living Meshes” was at VCU gallery, students and professors have been working to develop activating a new possible language for design in between disciplines. Recently it was received a series of images of what they have been working on presented their experimentations, seeming organic CNC routed plastic, and plexiglass pieces that have the
possibility to be arranged in many ways for wearables. Such as in this example *Living Meshes* has opened up to other possibilities that emerge in the doing in between disciplines at the Virginia Commonwealth University.

This project was possible with the help of Isabelle St-Louis, Magarita Zuniga, Aspa Chatzieftihimiou, Virginia Commonwealth University at Doha, Qatar. Graphic Design professors and students such as: Maryam Al-Homaid, Michael Hersrud, Hadeer Omar.

spatial emergences that are bifurcating filaments
organic becoming orgiastic
myriad speciations in the midst
textiles as permeable membranes

Figure 3.37. *Living Meshes* and the more than one
Figure 3.38. *Living Meshes* and the more than one

Figure 3.39. *Living Meshes* and the more than one
CHAPTER IV

A SERIES OF REFLECTIONS IN LIEU OF A CONCLUSION

My processes have roots in textile practice such as wrapping, knotting, unknotted, threading, weaving, and although the materials that are in my art doing often are related with non-textile things for example sound, bacteria, bees, breath, they are interconnected. I have been working with textiles and textile related processes for a while now and this journey has allowed me to discover how other process, events, and materials are interconnected with textiles. I am fascinated with how emergence in micro gestures, activate open transversal collective folds, interweaving disperses textures and rhythms. In the midst of texture there are intensive forces that play in-between surfaces. Flusser writes (1999, 56), “a piece of cloth that is open to experiences (open to the wind, open to the spirit) and that stores this experience.” Collective experiences meld in the midst of the co-composition my creative doings, they are moving across my creative doing within their differences. More than one process brings doings and acts to different fields in their difference as creative potentials that shift interaction to other relational forms, feeding the process through which artwork can become multiple. What I believe and aim to put into practice in my work is that collective movements activate diverse tones that can, through exhibitions processes or other process events that are activated in the making, become relationally engaged. These emergent encounters might not seems to look like art, they might look as food gatherings with miners, talks with the family of miners, mangrove trips, workshops with Doha students.

Creative composition moves us towards relations that create folds of experience, always emerging as more than the sum of their parts. Mutual inclusion interweaves differences of every
kind and degree. In each pulse of experience, there is the emergence of new variations of life, expanding across a multiplicity. For me and my work collective creative processes are ongoing dynamic flows of vital forces of experiences in both my world, and within other worlds. These forces drive creation with creativity which re-accommodates the established cartographies, activating new scenarios. The relations with more than, expands branches and webs around or throughout my creative doings, empowering a multiplicity of emergent nodes where transdisciplinary flows reshape the traditional forms of art making.

Qualities of experience interpenetrate from the outside where environmental relations create attunements in processes in order to call from those processes techniques that allow them to re-orient. In each creative doing I am always activating techniques from other practices such as what might be weaving, embroidery, painting, biology or virology, just to name some, which I re-orient or apply in divergent/new ways to activate other relations that might in turn trigger something, or some technique that is not to be found in traditional practice of painting or biology or other such delimited disciplinary fields. I am fascinated in how my work moves and flows, how emergence creates collective vulnerable forces in my work and where variable diagrams can be though to move, interweave and act as nodes in fields of dynamic relations and compositions.

In my artwork diagrams or mappings with thread and filaments act to give form to manifold relations which are encountered in the doing, where the body-knowing is activated by the intermedial forces between texture, color, movement. It is an impulse towards actualizing the virtual world. These Flow Mappings, as unlimited process of transindividuation, are significant for they keep my process fertile and flowing; helping to make the right demarcation between the porousness of the process and the activation of new encounters.
Figure 4.1. *Flow Mappings*, dynamic compositions.

Figure 4.2. *Flow Mappings*, dynamic compositions.

Figure 4.3. *Flow Mappings*, dynamic compositions
Diagrams for a kind of embodiment, a way of being in the world, forces that travel across the abys.

Stems spreading out across movements are intertwined, they unfold as micro-organisms that move as forces fields which are actively dynamic lines

Investigation comes in the shape or attempts of moving diagrams, a variation of so many wiring possibilities and a variation prone to accidents.

activating generous attentional ways for experimentation, forces and ways of making and working with materials

variations of motion rhythms and paces accidents leaking out variations of spinning spores

possibilities of multiplicity of transdisciplinarity trajectories coexistence coexisting heterogeneity


Spongy connections. Relational loopings and trajectories maybe as an archipelago.
As part of my dissertation praxis research I have sought to be attentive to the making. I have engaged with multiple processes that help me become attuned to the flowing of my movements, emerging in the acts of doing, and pushing me into the unknown. Eventuality the unknown is unfolding within collective forces. I my research and creative work I have been fascinated by, engaged with, and focused on movement and emergence, as part of the self-organization of ants, bees, bacteria, slime molds, bryozoa, grana cohinilla (grana cochineal). These trigger in my art doings an appetite for these complex organisms, which exist in, in between, and around us. The patterns, the movements, the forms, the events seen at varying scales within nature, from microscopic movements of slime molds to river deltas, are for me quite attractive. I am always seeking to combine different perspectives in an art, revealing different modes of creative questionings such as: How can we observe, hear, smell the things that are not totally visible? How can I work with biological materials and processes in order to create transdisciplinary open approaches? How can experimental events continue with an ongoing flow, but also remain part of an artwork in a gallery?

Transdisciplinary creative encounters generate a multiplicity of possible relations and landing sites at different scales. Interconnecting this multiplicity through the events spores and pores within muscular contractions, rhythms, forces in different levels of the human lets me re-appropriate life forces in order to render sense driven worlds of experience. This to say that in my art practice I need to activate more the germination and permeation of elastic and dynamic creative movements. I need to remain alert for “more than” movements that potentialize and empower creative potentials as operational modes for transdisciplinary creative doings. Within these movements the weaving of a multiplicity as a network of connection between experiences and techniques within which collective synergies are created, is of primary import. Within my
work collective and individual re-appropriations activate the potentials of other modes of emergence, taking shape as porous elements and germinating ways of making. Everything that we are is relating; wallowing, passing and revolving through stages of becoming in our world.

**WHATS BEING MOVED OR MOVING**

My creative making are in between a process of tickling, mixing, untying into the alchemy of momentary creative flashes that have been activated by Living Meshes and Last Breath. What is gained in the creative process comes in bits that are already broken off from the current of life, they ebbes and flows of mutual fibrations. These fibrations are central as creative forces and come into being within mutual relations that are generated by variations of speeds and an interplay of doings. This pushes me to play around in intermedia spaces, the potential of the undifferentiated and undefined, suggestive by inference but not fully articulate. So, I return once more to the question, How can bacterial movements transfer to become a central aspect of textile art?

Manifold voices, paths of creative encounters, and propositions are lived. These for me are spongy processes that enter in the middle of things, undergoing possible formations, which have the possibility to bend and deform when they encounter the other. These trigger possibilities when we observe, move and create; they offer paths of research-creation for me and I believe for others who seek new and significant transdisciplinary approaches.

force weaves the folds in relation
An orchestra of spongy possibilities

Every play has irregular contours

Playing with propositions is at the heart always re-invent propositions

‘It is as if one were casting a net, but the fisherman always risks being swept away and finding himself in the open sea when he thought he had reached port’ (Deleuze and Guattari, 1996, 203)

Finding the grain of the world’s becoming. (Ingold, 2015, 92)

weaving ecologies together as dynamic synergies

Emergence and self-organization of multiple creative textile interactions

Intensities bifurcating and co-composing in mutual inclusion
Creative spongy dances that fold in
the middle where movements surpass it

Thinking-feeling: transversal in all planes of experience
Comes from the movement of rolling
Co-emerging with more than human orchestrations

Looking forward my research-creation is touching the hearing of the micro and extending it into transdisciplinary collaborations that explore more than human activations. The work is part of a larger process that is related to a living art, an art which is being revealed in between disciplines, such as the sciences, activating in my creative process links to textiles within a wild relation, emerging from it, new ways in which art, science and medicine can be intermingled together. Bacteria and textiles as living formings that trigger transversal visualizations, makings and materialities that resonate into a creation of livable art as part of a collaboration between human and non-human and exploration of such interconnections. These collaborations can be seen as a kind of breathing materialities. They are part of a process for creating sounding technics that are an outgrowth of porous relations that are grown as life-forms, wrapping and crossing around and in between transdisciplinary creative processes. Expanding the possibilities of the use of materials as active intermedial layerings. Moving with as possible life and dynamic turnings and fleeting manifestations within difference.

As my process and explorations move forward I will keep developing means of how can I co-compose in the making of artwork as well as in my every-day life and highlighting the moving, breathing and rhythms of plants, bacteria, ants, bees extending it to
interconnections with a transdisciplinary process within textiles, organic materials within a science collaboration. I am sure that within the process I will explore new approaches between living textiles, living creative makings and more than human encounters. A challenge for transdisciplinary art and science explorations is how, in respectful ways, one can bridge the diverse worldviews of collaborators. A temptation in transdisciplinary creative work is to focus on just cultivating practices rather than to engage and open up research-creations practices that mutually respect their differences in outlooks, philosophies, and methodologies. It is important to ask how can we compose and discover from each other, making use of divergences in order to activate techniques that triggers emergent possibilities. In my on-going research-creation processes I have been surprised to find that errors play a really important role as emergent triggerings for other/new/divergent possibilities within an event or a process. Errors or failures activate other layers, speeds and rhythms in the doing. As with living organisms in general sometimes we are not sure how things are interconnected, or activated by other weavings, or even what they look like.

As part of my ongoing exploration from “Living Meshes” many things were activated, and one of them is a process of a new type of collaboration with a microbial ecologist from the University of Cornell at Doha. In the process of experimentation there might also be an interconnection with the Fab Lab of Mérida, Yucatan, Mexico. In particular this would focus on an exploration of the micro moving of diverse species of plants and birds allocated in the mangroves of Qatar. This would be an important transdisciplinary engagement for my work for I am really interested in the variations between disciplines that can activate the emergent potentials. Contemporary art, boundary-crossing research, experimentation, teaching in between emergent creative transdisciplinary encounters open up unique potentials and connections among
research and practice. Intertwining artistic and scientific ways of working, expands technics and research-creation methodologies, generating beyond conventional approaches.

As part of the project “Last Breath” there was the opportunity to work with WATS, an Interdisciplinary collective based in Mexico City. We have been exchanging ideas related to climate change and how art, science and technology can compose and activate events for the community of Oaxaca, Mexico, and how such engagements might trigger other interactions between various disciplines and with members of this community. In WATS we are building a possible platform and methodology for transdisciplinary collaboration to produce projects at the interface of art, science and technology in Mexico. In working together within other disciplines and people from around the world (Argentina, Chicago, China, Australia, to name some) it is important to be respectful with different world views. The novelty is how we sought to change our own engagement practices to advance transdisciplinary sustainability rather than improving just scientific techniques and how emergent processes can open up other novel encounters. We are not sure where is this heading to.

My work for the last decade has been situated between disciplines and has every day opened up a greater curiosity and interest about what possibly might come from interdisciplinary work in biology, archeology, medicine, and low technology? What might they have enabled within art and in into our everyday? Embedded in our everyday, these create layers of possibilities of collaboration with smell, sound, taste, fibers, insects, bacteria. In such developments there is an important thing that continues to fascinate me, and that is our sensory interactions with the world that extend beyond the more than human. When I turn to the more than human, plants and insects to name some, I see foldings that activate art fermentations in my creative process within a minor gesture.
There is an excitement to collaborate, relate and expand my creative processes within living art projects that related to textile encounters and to seek what they might look like in the context of biology, medicine, low technology (sensors) and DIY technics. This is an area that I always come back to, and that gives feedback and opens up my creative experimentation for transdisciplinary collaborations; relations within diverse ways of making that activate different speeds and rhythms in future work. As possibilities of art, science and medicine develop, this is an area that I continue to find most interesting, the process of working and how this activates other technicities in my research-creation. Creative practices in between different ways of making need, I believe, a sort of bacterial growth in between events that can trigger spores for other emergent activations. A way of postulating points of view, rather than something that might seem, or is, more static. For these to occur conditions are needed for collaboration, ambiguity, and openness. There is a complexity of within minor perceptions, in which playing around seeming sort of noise. This that might not be recognized in that specific moment, maybe those flavors, movements, rhythms, images that are coming and going within sensible vivid processes, and are interconnected in ways that we might not possibly think of at first or even second consideration. To give a clearer idea of these minor perceptions, which we are unable to pick out from the qualities of swarms, a nice example is the roaring of the sea. To hear the noise, we must hear the parts which make up this whole, that is the noise of each wave, although each of these little noises makes itself known only when combined confusedly with all the others, and would not be noticed if the wave which made it were by itself. (Leibniz, 2000, 54). It is almost as if each organism that persons, each stream of cleaving, was, already, but unbeknownst, a ubiquitous site.
WHEN THINGS MIGHT SEEM THAT ARE FAILING

A kind of expressive gear where singularities emerge with differential degrees of expression. Does probable possibilities of bodies-living might be a way of accessing relational immanence into other paths that in that time being could not be something dynamic and moving. It might create new creative conditions for other possible multiplicities or other modes of being that will shape other potentials and experimental modes of being with in the failure process.

Look in the process for minor dynamics or for those movements that might seem like spores (not so visual and not so immersed) these are bubbling activating other energetic encounters that might not seem relevant in that time being.

Unfold knots and webs...

Put attention to those energetic agitations, doings, movements, within an immanent relation.

Search in the process for different ways to make things happened. There is not just way of doing things there are many possibilities, portions and potentialities. If the piece needs to be in the wall because one of the requirements for and exhibitions is a wall, play around that in many ways until there are many possible relations that can activate more dynamic encounters.

Let it breath. It knows. It perishes. It moves. It plays in more than human interconnections…

Move across mediums, disciplines, rhythms, techniques in the process and in relation…

Explore in the gaps or in the in-betweens
REFERENCES


**APENDIX**

**LIST OF ARTISTS AND PRACTITIONERS**

<table>
<thead>
<tr>
<th>Artist/Maker</th>
<th>Artist/Maker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rafael Lozano Hemmer</td>
<td>Mark Dion</td>
</tr>
<tr>
<td>Franz Erhard Walther</td>
<td>Shusaku Arakawa - Madeline Gins</td>
</tr>
<tr>
<td>Christine Sun Kim</td>
<td>Akamatsu Nelo</td>
</tr>
<tr>
<td>Erin Manning</td>
<td>Olafur Eliasson</td>
</tr>
<tr>
<td>J Morgan Puett</td>
<td>Rafael Lozano Hemmer</td>
</tr>
<tr>
<td>Ernesto Neto</td>
<td>Robin Meier and Ali Momeni</td>
</tr>
<tr>
<td>James Turrell</td>
<td>Tomas Saraceno</td>
</tr>
<tr>
<td>Nikolaus Gansterer</td>
<td>Lygia Clark</td>
</tr>
</tbody>
</table>
BIOGRAPHY OF THE AUTHOR

Siglinde Langholz from Puebla, Mexico, is an interdisciplinary artist and thinker. She is currently graduating for an Interdisciplinary PhD at the University of Maine in which she researched “Transdisciplinary Creative Ecologies in Contemporary art within Emergent Processes” in partnership with organizations such as the Design Studio for Social Intervention (DS4SI), SenseLab, University of Concordia and University of Maine. She is the co-founder of spaz.lab a transmodal, interdisciplinary collective devoted to experimentation, collaboration, and engagement. This collective is interested in crocheting diverse disciplines together (sociology, philosophy, biology, for example) that engage culture at different points and initiate different engagements that shapes us just as we shape it; a co-creation.

Langholz’s practice and process interweaves process philosophy within relational and collaboration transdisciplinary practices in different mediums such as art installation, textile, sculpture, and performance. In her process, she explores the ramifications and intersections between science, textiles, architecture and rhizomatic environments within emergent makings and practices. Siglinde is the recipient of several grants and awards including the Immediations SSHRC Research Grant from the University of Concordia, Chase University of Maine’s 2015- 2016, and the Ana Mendieta art fellowship. Her work has been exhibited internationally, including exhibitions at the VCU Gallery in Doha, Qatar, CMCA 2018 Biennial at Rockland, Maine, USA, Transpiksel / Arte - Ciencia y Tecnologia Libre, UNAM, Mexico City, the Museum de Arte Contemporaneo Ateneo in Yucatan, the Biennale of Banners in Tijuana, Mexico, also in North Carolina and Detroit,
Michigan. Siglinde is a candidate for the Interdisciplinary Doctoral degree in Fine Arts from the University of Maine in August 2019.