SCHOOL GARDENING, TEACHING, AND A PEDAGOGY OF ENCLOSURES: THREADS OF AN ARTS-BASED MÉTISSAGE

by

JULIA KATHLEEN OSTERTAG

B.A.H., Queen’s University, 2003
B.Ed., Lakehead University, 2005
M.A., The University of British Columbia, 2009

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

in

THE FACULTY OF GRADUATE AND POSTDOCTORAL STUDIES

(Curriculum Studies)

THE UNIVERSITY OF BRITISH COLUMBIA
(Vancouver)

April 2015

© Julia Kathleen Ostertag, 2015
Abstract

In conversation with a growing school gardening movement (Williams & Brown, 2012), this arts-based research draws on material feminist and posthumanist (Alaimo & Hekman, 2008; Barad, 2003; Haraway, 2004, 2008) scholarship to reconfigure what it means to become a teacher. In particular, I explore ‘becoming teachers together’ with a garden as a way to reimagine alternatives for the persistent and familiar figure of the teacher as a rational, autonomous individual working within the closed doors of the traditional classroom (Britzman, 2003; Jackson, 1990). Indigenous scholarship, particularly around gift giving (Kuokkanen, 2007) and decolonization (Gaztambide-Fernández, 2012), offers unsettling insights into human and nonhuman entanglements such as the ‘garden-as-teacher.’ In this work, I linger beside (Sedgwick, 2003) both the possibilities and impossibilities of teaching with gardens, compelled to respond (Simon, 2006) to the difficult history of school gardens, particularly during Nazi Germany and in the Canadian residential school system, and the etymological knots that link gardens with material and discursive practices of enclosure.

The art theory and practices that shape this research are site-specific installation art (Augaitis & Ritter, 2008; Bishop, 2005, 2012; Bourriaud, 2002; Függe & Fleck, 2006; Kester, 2011), especially collaborations with Vancouver artist Sharon Kallis (Kallis, 2014) and an interview with Ron Benner (Benner, 2008). Responding to O’Donoghue’s (2010) provocation to consider classrooms as installations, I developed the installation series Threads sown, grown & given from April 2012 until August 2014 at The UBC Orchard Garden (a teaching and learning garden at the University of British Columbia) and in the teacher education building. The resulting métissage (Hasebe-Ludt, Chambers & Leggo, 2009) of narratives includes (a) the garden becoming a teacher, (b) student teachers becoming teachers during three research events related to the installation series, and (c) my own personal of becoming a teacher, scholar, and teacher educator. By attending to failure (Halberstam, 2011), this arts-based research creates conditions for what I term a ‘pedagogy of enclosures’ to engage with the ethical responsibilities and limitations of becoming teachers together, particularly in teacher education and garden-based education within the context of settler colonialism and the neoliberalization of the academy.
Preface

This dissertation is the original and unpublished work of the author, Julia K. Ostertag. The University of British Columbia Behavioural Research Ethics Board covered all research with human participants under ethics certificate number H12-01313 (School Garden Installation). While this is a single-authored paper, it is not solely the outcome of an independent intellectual process. Rather, this dissertation is profoundly shaped by collaborations with human and nonhuman contributors. Key collaborators are recognized in the acknowledgements and many of their contributions are described throughout the dissertation.
# Table of Contents

Abstract ................................................................................................................................. ii

Preface .................................................................................................................................. iii

Table of Contents .................................................................................................................... iv

List of Figures ........................................................................................................................ vi

List of Supplementary Material ........................................................................................... viii

Dedication ............................................................................................................................... xi

Overture .................................................................................................................................. xii

Chapter 1 – Introduction ....................................................................................................... 1

The site and site-specific installation series: Threads sown, grown & given ..................... 5

Growing the research questions ............................................................................................. 12

When theories and methodologies grow together ............................................................... 16

Situating the research within a methodological métissage .................................................. 23

Arts-based research ................................................................................................................ 24

Site-specific installation art .................................................................................................... 29

Life writing, metaphor, autobiography, and historical research .......................................... 31

Photographs and photography .............................................................................................. 36

Journaling, blogging, interviews, and student teachers’ Field Notes ................................. 39

Flax & fireweed: Plant participants ....................................................................................... 42

Guide to reading and walking down these garden paths ..................................................... 46

Chapter 2 – Down the garden path again? A critical history of school gardens .............. 51

Epicurus’ Garden School ...................................................................................................... 52

Residential schools, school gardens, and school farms ....................................................... 55

German school gardens & Nazi ideology ............................................................................. 64

School gardening: Impossible possibilities? ........................................................................ 72

Chapter 3 – Threads given: The gift and the garden ......................................................... 75
Reading about the gift while Olivier goes to daycare ........................................ 81
The circle and its discontents .................................................................................. 85
Gatherings, gifting, and the mound ........................................................................ 90
Threat of the gift ....................................................................................................... 95
Research, reconciliation, regeneration, and the gift ............................................. 101

Chapter 4 – ‘&’: Knotting materials and discourses together .......................... 108
It all comes together ............................................................................................. 114
Coming together and being alone ........................................................................ 119
What about the individual? ..................................................................................... 122
Failure and the limitations of arts-based research .............................................. 125
Failure of setting ..................................................................................................... 127
Alone in the wilderness/garden ............................................................................. 130
The shame of difficult knowledge ......................................................................... 133
Spinning threads and becoming spiders together .............................................. 143

Chapter 5 – Threads grown: An unruly metaphor for becoming teachers together.... 152
Student teachers performing freedom and control ............................................ 159
Can a garden be a teacher? ..................................................................................... 171
Growing a research project .................................................................................... 178
Mourning the limits of growth ............................................................................. 185

Chapter 6 – Threads sown: Sowing a grid of that most useful line.................. 193
Rooted to the soil ..................................................................................................... 199
Designing grids in the dirt ..................................................................................... 203
The grid falls apart .................................................................................................. 214
Frames, enclosure, nation, territory ...................................................................... 218
Sowing queer, feminist, postcolonial seeds in the Anthropocene? ..................... 224

Chapter 7 – Gathering the threads........................................................................ 233
A pedagogy of enclosures ..................................................................................... 239

References............................................................................................................... 242
List of Figures

Figure 1 - Fröbel’s (as cited in Herrington, 2001) children’s garden. Each gridded plot is labelled with a child’s name. The borders are for grains and other communal plantings. ..... 2

Figure 2 - Student teachers gather under the old apple tree, The Orchard Garden, Threads grown, 2012 ........................................................... 6

Figure 3 - Flax desks blooming at The Orchard Garden, Threads sown, 2012 .................. 9

Figure 4 - Flax growing at The Orchard Garden, Threads grown, 2012 ......................... 43

Figure 5 - Fireweed blossoms and a honeybee at The Orchard Garden, Threads given, 2013 .... 44

Figure 6 - Brandon Indian School, Garden boys harvesting carrots, 1902 (The United Church Archives, n.d.) ............................................................................. 57

Figure 7 - Cover of a German school gardening guidebook by Portheine (1938) to guide teachers in adopting the new 1937 ministerial policy for school gardens in all schools. The shocking materiality of receiving this original publication (stamped by the Nazi regime) in the mail through an Amazon book order was—and remains—profoundly unsettling..................................................................................... 68

Figure 8 - Gift of flax tow and a circle of fireweed, The Orchard Garden, Threads given, 2013 .................................................................................................................. 75

Figure 9 - Gift of linen memory webs and fireweed, The Orchard Garden, Threads given, 2013 .................................................................................................................. 76

Figure 10 - Planting a circle of fireweed rhizomes, Threads given, March 2013 .............. 86

Figure 11 - Fireweed mound, Threads given, 2013 .............................................................. 91

Figure 12 - Cutting down the fireweed blossoms, Threads given, 2013 .......................... 97

Figure 13 - Threats of the gift, Threads given, August 2013 ........................................ 100

Figure 14 – Memory bundle knotted in a linen spider web, Threads given, 2013 .......... 104

Figure 15 - Indoor ‘&’ installation poster, 2012 ............................................................... 109

Figure 16 - Spinning in the basement, ‘&’ installation, 2012 [Photo credit: Spring Gillard] .... 111

Figure 17 - Entanglements of becoming teachers together, ‘&’ installation research event, November 20, 2012 ............................................................................................... 116

Figure 18 - Teacher education building classroom hallway with graduating class photographs .................................................................................................................. 117
Figure 19 - The frame of the indoor installation, 2012

Figure 20 - Debra Sparrow and student teachers in conversation, November 20, 2012 research event

Figure 21 - Jeannie’s garden reflection for our collaboratively spun memory web, *Threads given*, 2013

Figure 22 - Spinning cops of linen for the blackboard at the ‘&’ installation

Figure 23 - Gently containing/braiding the flax desks, *Threads grown* research event, August 2, 2012 [Photo credit: Chessa Adsit-Morris]

Figure 24 - Performing ‘Conflict between teacher control and student freedom,’ *Threads grown*, The Orchard Garden [Photo credit: Chessa Adsit-Morris]

Figure 25 - Return to order in the performance of ‘Conflict between teacher control and student freedom,’ *Threads grown* [Photo credit: Chessa Adsit-Morris]

Figure 26 - Witnessing freedom and constraint from the walls of the classroom, *Threads grown* [Photo credit: Chessa Adsit-Morris]

Figure 27 - Sowing a grid, *Threads sown*, 2012

Figure 28 - Design drawing for *Threads sown*, April 2012

Figure 29 - Sacred green lawns, UBC Main Mall

Figure 30 – Loving the grid, *Threads sown*

Figure 31 – Building and sowing the gridded classroom, *Threads sown*

Figure 32 - The grid falls apart, *Threads grown*, The Orchard Garden

Figure 33 - Staking territory, claiming land, *Threads grown*

Figure 34 – Weeding and tidying the outdoor classroom, *Threads sown* [Photo credit: Djamila Moore]

Figure 35 - Mess at The Orchard Garden office

Figure 36 - New Orchard Garden plot at Totem Field, prior to planting (April, 2014)

Figure 37 - Things fall apart, failure, fog, *Threads given*, 2013

Figure 38 - Final photograph of *Threads sown, grown & given*, The Orchard Garden, August 2014
List of Supplementary Material

1 - Threads sown, grown & given: A site-specific installation series at The Orchard Garden
(Ostertag, 2015)……………………………………………See http://hdl.handle.net/2429/52953
Acknowledgments

I would like to offer many thanks for the opportunity to live, study, and garden at UBC as a guest on the traditional, unceded, ancestral lands of the hən̓q̓əmin̓əm̓ speaking xʷməθkʷəy̓əm (Musqueam, People of the River Grass).

Thank you to the human and more-than-human team that is The UBC Orchard Garden. It is impossible to list you all, however, I have especial gratitude for the old apple tree, flax, fireweed, Dr. Susan Gerofsky, Dr. Andrew Riseman, Dr. Maja Krzic, Samira, Djamila, Kate, Chessa, Toni, Heather, Panthea, Claire, Galen, Scott, Roz, Kwesi, Laura, Brendan, Jay, Natasha, Leanna…an ever-growing and unfolding collective of garden educators! Susan, you have been my co-conspirator in all things Orchard Garden related, and I thank you for your boundless friendship, music, creativity, and generosity.

Thank you to my supportive, challenging, open-minded, and trusting committee—co-supervisors Dr. Dónal O Donoghue and Dr. Tony Clarke, and committee member Dr. Tracy Friedel. Sharing ideas with you has been a wonderful privilege.

Jeannie, we met at the garden and now our lives and thinking are entangled in a million ways. Thank you for entering this research journey with me, and never faltering along the way!

Thank you Sharon Kallis and the Urban Weaver Project at MacLean Park for teaching me to spin, to weave with English Ivy, to work with plants and people in collaborative art projects. Thank you also to Ron Benner and Debra Sparrow for sharing your love of art, plants, and learning. To Barb Rimmer and the Flax to Linen project in Victoria, as well as Anik Choinière in Vancouver, I am indebted for learning how to process and work with linen.

Thank you to Elsa and Heather for inviting me along in the Gift & Reciprocity reading group. And thank you to Elizabeth, whom I can no longer fully thank, for inviting me into your writing group with Fish, Mali, Jay, Amy, and Alana.

Thank you to SSHRC for providing me with a 4-year doctoral fellowship and the on-going support from the Department of Curriculum & Pedagogy. Also, thank you to the Teacher
Education Office for offering space for the indoor installation, as well as Lena Schrieb for designing the poster.

Thank you to Ofira, Ido, Mike, Nora, Andrew, Erika…and all our children…and the entire community at Acadia Park for making life rich, for building webs of friendship, food, and song strong enough to sustain us all. On that note – Save Acadia Park!

Merci pour l’amour de ma famille: Ugo, Olivier, Colleen, Joachim, Sonja, Sebastian, Matthias, Pat, Martin, Jean, Priscille, Janvier, Barbara et le ‘petit mystère’ to come…words fail me here. Danke.
Dedication

For Helga, Elizabeth, and the possibilities of gardens
Overture

imagine
sitting at a desk
the classroom is quiet and still

when a robin chirps, “Cheer-up, cheer-up,” and a
breeze drifts by through the window sill

suddenly

walls crumbling into a verdant mass
swirling in a pale blue sea

images and memories
tastes and textures
smells and songs

call from, within

this time, that time
this place, that place

blurring all boundaries
clamouring for attention

buzzzzzzzzzz

threading through words and worlds a
bee passes by

awakens the restless dreamer
another blue flax flower greets the sky
Chapter 1 – Introduction

The popular image of teaching as an individual activity, privatized by the walls between classrooms, is an image students bring to their teaching practice. The “walls” serve a metaphorical function as well: teachers are expected to work alone, without any help. In such a privatized world, the teaching methods required to sustain it are specific and unchanging. (Britzman, 2003, p. 63)

As you and I enter the gate together and walk into the garden, this space of enclosure and containment, we could respond to the garden in many ways. We could go our separate ways and rest peacefully in the dappled shade of the apple trees. Perhaps I would pick up a hoe and begin to weed, while you would learn the names of the plants and animals in the garden, and, after a while, we would meet again to harvest fresh vegetables and flowers for a communal meal, and share the space with a lively class of students. We could also ask creative and unsettling questions about the very frames that bring us together in the garden—who and what are the ‘we’ of our togetherness? How was our coming together made possible within the history, aesthetics, design, materials, and discourses of gardens? As educators, how do these frames shape our practices of knowing and teaching so that we may engage ethically with things that matter?

Going down these garden paths, however, will not be easy. Amidst the beauty and vitality of life, we will also twist and turn along the journey into places of solitude, death, decay, and failure (Halberstam, 2011). This may seem an unbecoming route, particularly when the gardens that concern me most in this dissertation are school gardens, idyllic places once again being brought to life by a rapidly growing school-gardening movement (Williams & Brown, 2012), where we envision children connecting with land outside of the brick walls of the school, eating healthy food, and moving their bodies to the rhythms of the seasons. However, gardens are never one thing, and their meaning, historically and today, is constantly shifting. Ever since Epicurus’ Garden School in ancient Greece, educational gardens have appeared and disappeared from school landscapes and educational thought, shaped by complex social, political, and environmental conditions as well as well-intentioned discourses about connecting children with nature, escaping the stresses of the city, and learning how to grow healthy food. Moreover, inasmuch as many of these gardens are intended to escape the confines of the indoor classroom,
they are frequently rigidly arranged in neat, orderly rows, very much like the gridded landscape of the indoor classroom (see Figure 1).

Figure 1 - Fröbel’s (as cited in Herrington, 2001) children’s garden. Each gridded plot is labelled with a child’s name. The borders are for grains and other communal plantings.


These parallels between indoor and outdoor education go beyond the design of learning spaces and include complicated historical discourses separating nature and culture and perpetuating social injustices. Responding to the complicated legacies of school gardening requires going down the garden path again and again in order to understand the particular times and places, materials, and discourses that bring school gardens into being and contribute to their
growth or demise. This notion of garden paths, and the uncertain relationship between knowledge and reality that is at play in gardens, is a generative and difficult space for academic inquiry. For instance, in English linguistics, ‘garden path sentences’ (such as, ‘the old garden with care’) involve grammatical forms that require the reader to re-read a sentence in order to grasp the author’s intent. As such, these sentences challenge habitual interpretations of language. Re-reading school gardening historically and as a site-specific installation may work to “trip” (Haraway, 2004, p. 201) us in the overly familiar spaces and discourses of the garden as we try to understand what school gardening, as paradox and im/possibility, is all about. Time, place, language, discourse, and materiality (Barad, 2003) will figure centrally in going down these school garden paths again and again.

To begin with, understanding the etymology of the word garden is helpful, since the English word for garden is related to the word for enclosure. According to Wikipedia,

> The etymology of the word gardening refers to enclosure: it is from Middle English gardin, from Anglo-French gardin, jardin, of Germanic origin; akin to Old High German gard, gart, an enclosure or compound, as in Stuttgart. See Grad (Slavic settlement) for more complete etymology. The words yard, court, and Latin hortus (meaning "garden," hence horticulture and orchard), are cognates—all referring to an enclosed space. (Garden, 2015)

With its linguistic origins in English, French, and German, this etymology of the word garden does not offer a universal definition of gardens and what gardening means in diverse places and times. However, considering that garden-based education remains a highly Eurocentric pedagogical practice and discourse (and my own positionality within this European lineage), I have found myself returning again and again to this etymology as a provocation to think carefully and ethically about gardens. In particular, this notion of enclosure unsettles more day-to-day references to gardens and outdoor classrooms as utopic places to escape the confines of indoor educational experience. A garden, as Hunt defines it, is

> a bounded space that makes reference to the world beyond its boundaries…. Hunt attributes this outside referencing to the garden maker’s desire to epitomize the whole world within the limited space of the garden, in other words, to recapture all of nature within the garden. (Gillette, 2011, p. 137)

Recalling the relationship between gardens and enclosures offers a frame for thinking about the diverse materials and discourses at play within the intersections of nature and culture, and even
calls into question this binary as one of the most difficult legacies of Eurowestern thought (Cruikshank, 2005, p. 245). Michel Foucault’s (1986) concept of heterotopia provides another useful starting place for rethinking our understanding of the garden.

Unlike utopias, which are etymologically “no-places,” heterotopias, or counter-sites are a kind of effectively enacted utopia in which the real sites, all the other real sites that can be found within the culture, are simultaneously represented, contested, and inverted. Places of this kind are outside of all places, even though it may be possible to indicate their location in reality. (Foucault, 1986, p. 24)

According to Foucault (1986), the garden is a contradictory site that is perhaps the oldest example of a heterotopia: “The garden is the smallest parcel of the world and then it is the totality of the world. The garden has been a sort of happy, universalizing heterotopia since the beginnings of antiquity” (pp. 25–26). School gardens become heterotopias par excellence, since their existence is frequently due to utopic desires, although the many contradictory discourses and materials entangled in the real sites of these gardens suggest that they enact more than they can contain. Focusing on the garden as enclosure as I do in this dissertation has allowed me “to call the frame into question” (Butler, 2010, p. 9), and, as Butler (2010) wrote,

> to show that the frame never quite contained the scene it was meant to limn, that something was already outside, which made the very sense of the inside possible, recognizable. The frame never quite determined precisely what it is we see, think, recognize, and apprehend. Something exceeds the frame that troubles our sense of reality. (p. 9)

What can we learn by troubling this familiar frame of the garden, and, by extension, the familiar frames of the classroom and the teacher? In this dissertation, what I term a pedagogy of enclosures becomes the rather unexpected framework for troubling, understanding, and re-imagining personal and collective human and more-than-human entanglements in educational gardens and teaching relationships more generally. Methodologically, site-specific installation art (Bishop, 2005, 2012; Bourriaud, 2002; Kester, 2011) opens up conditions for arts-based research within and beside the frames of school gardens and what comes together when entering into these heterotopias, these liminal, indeterminate times and spaces of teaching and learning.

In this introduction, I describe this dissertation’s central threads by sharing with you the study’s guiding research questions, theoretical frameworks, and methodological positions.
Within the chapters that follow, historical, theoretical, and methodological questions get taken up in greater detail as I write alongside the site-specific installation, *Threads sown, grown & given,* the experimental space for thinking, teaching, and making (Ingold, 2013) that was—and continues to be—generated by this arts-based research. These chapters can be read and engaged with in various ways, hence at the conclusion of the introduction I provide some potential navigational options on how you might like to go down these garden paths. Before turning to the research questions, however, I want to invite you to The University of British Columbia (UBC) Orchard Garden and the site-specific installation series *Threads sown, grown & given.* These are places where I have been a visitor (Chambers, 2006), where I have invited student teachers onto this emergent research journey, and where I experimented with the majority of the practices and questions that follow in this dissertation.

**The site and site-specific installation series: *Threads sown, grown & given***

Place and spaces matters a great deal in this research, although, as Claudia Ruitenberg (2005) reminded, “*Where* we learn becomes part of *what* we learn, but not in any determinable way” (p. 214, emphasis in original). The place of this research is much more, therefore, than The Orchard Garden, a teaching and learning garden on the campus of the UBC. As you engage with this dissertation, place will constantly shift, allowing for unstable topographies to emerge that exceed the conventional notion of ‘nature’ that continues to be the focus for much place-based and environmental education. Here,

‘*Place*’ means much more—and much more unstably—than the natural environment alone. Each place has a history, often a contested history, of the people who inhabited it in past times. Each place has an aesthetics, offers a sensory environment of sound, movement and image that is open to multiple interpretations. And each (inhabited) place has a spatial configuration through which power and other socio-politico-cultural mechanisms are at play. (Ruitenberg, 2005, p. 215)

It is into The Orchard Garden, a particularly unstable place at UBC, that I now invite you (see Ostertag, n.d.). The Orchard Garden began in 2005 as a student-led food production garden for the Faculty of Land and Food Systems, and became a partnership project in 2010 with the Faculties of Education and the School of Architecture and Landscape Architecture. Led by a student team of undergraduate and graduate students in Education and Land and Food Systems, over 1,000 education students (student teachers and graduate students) attended classes in the
garden between 2010 and 2014. While each visit was unique, over the years of educational programming a storyline weaving place, history, memory, geography, and politics emerged that became part of the teaching philosophy at the garden. The following brief narrative invites you down the garden paths at The Orchard Garden, where I worked, volunteered, researched, and gardened for 5 years as its education coordinator.

A group of student teachers gathers together in a loose circle beneath the old apple tree (see Figure 2), surrounded by rows upon rows of dishevelled vegetable garden beds and wild jumbles of poppies, yarrow, and other flowers. The air hums with bees—honeybees from our three hives and hundreds of other unnameable local species. Swallows swoop above us. A sparrow sings on the top branch of the old tree.

“Welcome to The Orchard Garden,” I say as attention slowly drifts into the circle.

Figure 2 - Student teachers gather under the old apple tree, The Orchard Garden, *Threads grown*, 2012
“We like to welcome groups here beneath this old apple tree to recognize the history of the land within which we are situated. When UBC was founded, it was an agricultural university, and fields covered most of the campus. At one time, an orchard spanned from here, behind Land and Food Systems, to the Faculty of Education. This tree, and a few others back there in the parking lot, are all that remain from the orchard.” I point to the old trees amidst the cars.

“The orchards were mostly torn out when the university expanded after World War II. In fact, when I came to UBC in 2007 for my master’s, I taught as a teaching assistant in a portable located right here. The portables were torn down between 2005 and 2010.” I laugh at the strange, unexpected twists and turns in life.

“Now, where I used to teach about food systems in a building, I teach outside in a garden and build an installation that once again replicates an indoor classroom.”

“What do you do with the food?” a student asks pragmatically.

“The food is mostly grown by students for the Agora Café, a student-run café in the building just beside the garden. During the summer we have a CSA—which stands for Community Supported Agriculture—where people come by every week to pick up bags of produce which they purchased before the growing season started. It’s a very local and seasonal way to eat, and it supports farmers with a steady, guaranteed income during the growing season. We also use the food during class visits, special events, and at a summer institute for local teachers interested in school gardening,” I reply.

“However, we can get into more of that later,” I say as I steer the conversation back to the history of the garden. “In terms of our name, The Orchard Garden, it seems fitting that this garden, a student-directed collaboration between the Faculties of Education and Land and Food Systems, should be marked by apple trees, since the apple is so often considered the symbol for education. However, this agricultural history is only one part of the story. The land here remains the unceded and ancestral territory of the həəməm speaking Musqueam people. We are privileged to garden as visitors on this land…. I pause, wondering about the authenticity of my words, the protocols of this university, and the continued legacies of colonialism that my words cannot erase nor reconcile. Are we really visitors or guests on this land, as many state in their
acknowledgments of colonial history? I return to my woefully inadequate, linear historical narrative of land and soil as I know to tell it.

“The history of this land also extends back into geological time, to periods of glaciation that deposited the sandy soil upon which we now stand. While gardening may seem like a way to connect with the here and now, I invite you to consider the history of the land and its people wherever you garden or wherever your school may have a garden. These histories matter…. With that, my welcoming remarks trail off. The students are nodding respectfully, although it is unlikely that these words are unsettling their understandings of the relationships between education, land, and people.

“Oh well,” I think, “repeating these words in multiple contexts may one day create enough space to shake the tree.”

Unable to resist the desire to shake the tree a little more, however, I ask, “Has anyone heard of some of the issues facing the future of the garden?”

A few faces brighten. A few hands are raised. “Yes, I heard the garden is going to be destroyed to build new residences!” one student says excitedly.

“Yes, this is likely our last year here. The university is building a new housing hub here, ironically called the Orchard Commons, though we’re not sure how many trees will actually remain. There will be a series of high-rises here, up to 18 storeys, to house international students as part of a very expensive college program to fully qualify them to study at UBC.”

“What? That’s crazy! But this is so beautiful and important! UBC can’t do that!” Exclamations of outrage erupt from the entire class, including the instructor. Together, we rant about how a corporate university uses its brand, “Place of Mind,” and yet does not appear to value places and their socio-ecological histories in the educational vision for UBC.

“So, these are all issues that may confront you as you become teachers at schools with gardens. History, politics, land, and culture are deeply intertwined, and it’s all very emotional. I guess what’s happening at The Orchard Garden is just a great example of all this complexity.” I try to seize this as a teachable moment but feel a sense of betrayal in doing so. This garden is more
than a teachable moment, a pedagogical tool for learning. This little marginal space has made certain assemblages of things, emotions, ideas, knowledge, and relationships possible that simply did not exist before. These are not objects that can be possessed or preserved, yet they matter deeply.

**Threads sown, grown & given**

In the unstable places of The Orchard Garden, things and ideas have come and gone, unsettled through long histories of glaciation, inhabitation, colonization, relentless ‘development,’ and imagination. From April 2012 until August 2014, I participated in enclosing and unsettling this heterotopia through the site-specific installation series *Threads sown, grown & given* as part of this arts-based dissertation research. The installation began with *Threads sown*, when I planted a classroom-sized rectangular plot at the garden into a classroom-shaped grid of flax desks. There were 24 student-sized desks of flax that came from seeds saved at the garden the previous year, and one larger teacher’s desk at the front of the room grown from Evelin seed, which I had ordered by mail from Ontario. Around the desks I planted a wall of
grains, and, with the exception of an open door at the back of the classroom, the entire space was enclosed by a simple cedar frame (see Figure 3). In August, for Threads grown, I hung four wooden window frames in the installation space that depicted black and white photographs of the difficult history of school gardening printed onto white canvas. Images of school gardens from residential schools and during Nazi Germany were particularly unsettling, juxtaposed with the vitality of the late-summer garden. On August 2, 2012, I hosted my first research event at the garden with a class of student teachers and their instructor, Jeannie Kerr.¹

After the research event,² I harvested the flax from the installation space and began to process the fibres for linen (a process called retting). From November 13–30, 2012, the installation series moved into a public space in the basement of the teacher education building at UBC, with an official opening on November 13. This became the indoor ‘&’ installation of Threads sown, grown & given, in which the materials and discourses from the summer were spun into linen thread, and I began imagining the final gift-giving installation for the spring. For three weeks, I sat in the basement at a round table and spun flax to linen thread with a wooden drop spindle. Surrounded by the installation materials—weathered canvas windows, a new window with vivid coloured pictures from Thread sown/Threads grown during the summer, and a blackboard with photographs, quotes, and an ever-increasing number of cops of linen thread—I talked with friends, colleagues, student teachers, and passers-by who visited the installation. On November 20, 2012, I held my second research event with Jeannie Kerr and another group of student teachers, this time for a class focusing on Indigenous education. As part of the workshop, we invited Debra Sparrow, a Musqueam First Nations weaver and artist, to speak with the students about art, education, and relationships with the land.

¹ As the research progressed, Jeannie Kerr became more of a research collaborator than research participant, and our doctoral research projects reflect this close relationship. Through this intense collaboration (that included co-presenting at educational conferences), it became clear to Jeannie that retaining her anonymity in my research was unnecessary (Jeannie also refers to me by name in her own dissertation, see Kerr, 2013).

² Three central research events with participating student teachers accompanied the installation series. Each event followed a different structure, although they were all at least 3 hours long and included hands-on activities, time for students to write reflections in their Field Notes (a three-page notebook), and whole-class conversation. I describe them as events rather than workshops to recognize that while the moments with the student teachers in the installation were a fleeting few hours, the outcomes for this research—and the research participants—extended beyond (and prior) to these ephemeral encounters and our narrations thereof.
In March 2013, I hosted my third and final research event with student teachers at The Orchard Garden. The students were workshop participants interested in garden-based education, and this was our sixth workshop with the group. Jeannie Kerr participated once again, not as an instructor this time, but drawn into the research project as a collaborator, friend, and doctoral student colleague. For *Threads given*, we collaboratively spun beautiful linen memory webs throughout the wooden frame of the installation. In the webs we knotted bundles of canvas cut from the windows depicting the history of school gardens, now written over with our personal garden memories and reflections. Later that spring, I planted a ring of fireweed rhizomes at the centre of the classroom, wondering as I did so if these linen webs and fireweed plants would ever become gifts of regeneration to the land, to cultivate and sustain relationships of responsibility to all others (Kuokkanen, 2007).

Throughout the remainder of that second summer, I tended the gift giving installation, adding flax straw mats and soft flax tow to the circular mound of fireweed. Bound by a promise to the team of student gardeners, I struggled with my obligation to remove the fluffy seeds from the flowering fireweed, since the student gardeners had only reluctantly accepted my plan to plant weeds in the food gardens at The Orchard Garden on this particular condition. I, however, longed for the fireweed seeds to fill the air and ground. By the summer of 2013, we knew that this would be our last season at the garden since construction for a new college for international students at UBC—Vantage College at the Orchard Commons (University of British Columbia Vantage College, n.d.)—was scheduled to begin in 2014. By the end of April 2014, the student team—with support from UBC’s administration—had relocated The Orchard Garden to a research field station called Totem Field located a 5-minute walk away from the original garden. By mid-August 2014, large earth-moving equipment had levelled and cleared everything at the original garden, including numerous large trees; however, the wooden frame marking the site of *Threads sown, grown & given* remained standing, the plants within it an unruly mass of weeds (including a few surviving fireweed plants in bloom once again). Digging beneath the wild profusion, however, I could still find flax mats and memory bundles, and one frail, silvery strand of linen spider web remained suspended in the air, spanning the doorway of the classroom. It was at this time that I left Vancouver to write the final chapters of this dissertation from Owen Sound, my childhood hometown in Ontario. I was gone by the time the bulldozers and diggers arrived to
destroy the installation that I had documented in nearly 200 photographs in a time-lapse series from April 2012-August 2014 (see Ostertag, 2015).

**Growing the research questions**

While in the following sections I engage with the theories and methodologies that shaped this research project, I will turn now to the layers of questions that shaped and emerged from this site-specific installation arts-based research process. Philosophically, these questions continuously turn around concerns with the nature/culture binary, and the way Eurowestern worldviews, educational practices, and research methodologies have participated in this longstanding dualism (Braidotti, 2009; Kuokkanen, 2007; Latour, 2004; Plumwood, 2002). Originally, when I began studying posthumanist, material feminist, actor-network theories, and Indigenous scholars, I imagined that school gardens may create possibilities for reconfiguring what and who is a teacher. My hope was that teaching with gardens might lead to a distributed and relational sense of the teacher, one that includes the more-than-human and breaks free from the confines of the rational, autonomous teacher enclosed within the four-walled classroom that continues to shape teacher identities and pedagogical relationships and spaces. At the same time, however, I was haunted and unsettled by the etymology of gardens as enclosures and compelled to respond (Simon, 2006) to the difficult knowledge (Pitt & Britzman, 2003) brought forward by school garden history, a narrative knotted into my personal autobiography as a German-Canadian settler occupying a position of privilege at a large Canadian university. Could I truly imagine gardens-as-teachers, as I theoretically longed to and occasionally sensed was possible, and still respond to and somehow reconcile this difficult history?

It is this internal tension—between longing for human and more-than-human togetherness in how we become teachers juxtaposed with a profound sense of unease regarding school gardening history, discourses, and practices—that made the methodological and theoretical contributions of arts-based research particularly salient and compelling. Specifically, contemporary art theory and artistic practices in site-specific installation art (O’Donoghue, 2010) offered creative practices for unsettling familiar, taken-for-granted relationships with gardens, outdoor classrooms, indoor teaching spaces, and teacher identities without trying to escape or go beyond their enclosures. From April 2012 until August 2014, the installation series *Threads sown, grown & given* created...
conditions for growing a research project that considers the following emergent questions. The first research question of this dissertation was as follows:

(1) How do we (humans and more-than-humans) become teachers together?

Specifically, the ‘we’ in this inquiry includes the entanglements of:

- a garden becoming a teacher;
- student teachers becoming teachers; and
- my personal journey of becoming a teacher, scholar, and teacher educator.

This first question explores the notion of ‘togetherness’ within the context of posthumanist, material feminist, and Indigenous calls for more relational, place-based, material, and practice-oriented pedagogies. Since this research was located within a teacher education program and my work with student teachers at The Orchard Garden, the focus was on ‘becoming teachers’ rather than student becomings. Nevertheless, the endless openess to learning and new relationships that becoming teachers necessitates certainly draws on the experiences of becoming students and relationships with students. More specifically, the teaching collective I was hoping to assemble with Threads sown, grown & given was (a) the human and nonhuman entanglements brought together in the garden; (b) student teachers through a series of participatory research events with the installation series; and (c) my own interactions, reflections, movements, dreams, affects, and failures as I created, documented, and accompanied the installation series. This notion of togetherness, however, profoundly challenges conventional teacher identities and the processes through which we become teachers (Britzman, 2003; Irwin & O’Donoghue, 2012). As such, the dissertation questions what it means to ‘become teachers,’ where becoming a teacher includes the notion of the garden-as-teacher (a cliché, oppressive ideology, and opening for generative possibilities), student teachers becoming teachers, and my journey of becoming a teacher within a teacher education program and now a doctoral program. While many doctoral students in my program graduate and become teacher educators, during my doctoral education fellow graduate students, professors, and I rarely, if ever, openly, theoretically, or practically explored our teaching practices for teacher education (see Kosnik et al., 2011; Zeichner, 2005). Furthermore, in teacher education it is difficult to challenge the process of teacher becoming since everyone, particularly teacher candidates, “bring to teacher education their educational biography and some
well-worn and commonsensical images of teacher’s work” (Britzman, 2003, p. 27). Finally, while this is a study in teacher education, it is not an analysis of a teacher education program. Rather, working with the garden, the student teachers, Jeannie Kerr in her capacity as teacher educator, and with a student team of gardeners and educators at The Orchard Garden created spaces and encounters at the margins of the formal teacher education program and the academy to play with, challenge, and confront the possibilities and impossibilities of becoming teachers together.

As much as ‘becoming teachers together’ is a highly generative concept that responds to urgent social and ecological crises and recognizes the limitations of traditional teaching identities and practices, this dissertation also responds to failure (Halberstam, 2011); difficult knowledge (Pitt & Britzman, 2003); shame (Werry & O’Gorman, 2007); death, decay, and mourning (Nowviskie, 2014); and solitude and loneliness (Arendt, 1966) that emerged alongside the arts-based research. The emerging notion of the Anthropocene (Steffen, Grinevald, Crutzen, & McNeill, 2011); the corporate and neoliberal shift in university education (Berg, Guhman & Nunn, 2014; Kuokkanen, 2007) and education more generally (Tuck, 2013); the pervasiveness of grids in landscapes and pedagogies (Cosgrove, 2008; Davis, 2013); and the ongoing legacies of colonialism, racism, patriarchy, and other social injustices all contribute to the enclosures I encountered during the research that continue to frame how we become teachers together, particularly in relation to land (Tuck & Yang, 2012). Arts-based research created the possibilities for process- and practice-oriented research (Irwin & Springgay, 2008) wherein I could attend to these tensions, these intense sensations of failure during the research, and recognize that these narratives were integral—rather than antithetical—to researching and creating conditions for becoming teachers together. These considerations led to a second research question:

(2) *What possibilities do arts-based research provide for teacher education?*

More specifically, what conditions for researching and engaging ethically with teacher becomings are made possible through site-specific installation art practices and theory, particularly in the context of school gardening?

For instance, as an advocate for school-gardening initiatives and being cognizant of how most school gardening projects are highly marginalized, underfunded, and tenuous, I was aware
of the risks involved in a rigorous critique of school gardening projects (including our own Orchard Garden) when the existence of these gardens is threatened on a daily basis. Arts-based research approaches offered me possibilities for engaging critically, ethically, and generatively with the challenging aspects of school gardening rather than assuming a destructive and distanced position of moralistic criticism. Rogoff (2008) captured these tensions when she wrote that art and the word theory are closely imbricated, since conceptual artists “address how culture is perceived when it is viewed from the back door or from an oblique angle, through miscomprehension and mistranslation, and what it means to be in a position of culturally longing for that which is historically and politically forbidden to you” (p. 104). Furthermore, just as photographs and the processes of photography bring forward the significance of frames and framing (Butler, 2010), arts-based research practices brought to my attention the importance of enclosures in researching and teaching with gardens. For instance, attending to (and tending to) the gridded flax classroom—as aesthetically beautiful, as compulsively inescapable, as devastating failure when wind and rain wreaked havoc on the straight lines—were gifts that arts-based research made possible. Instead of going beyond the Anthropocene, the corporate university, colonial legacies, instances of solitude, loneliness, and profound failure during the research, I recognized that lingering beside (Sedgwick, 2003) these grids, lines, and frames was more generative than attempting to escape them into a utopic dream of human and nonhuman togetherness: “the irreducibly spatial positionality of beside also seems to offer some useful resistance to the ease with which beneath and beyond turn from spatial descriptors into implicit narratives of, respectively, origin and telos” (p. 8). As Eve Kosofsky Sedgwick (2003) beautifully suggested, “Beside comprises a wide range of desiring, identifying, representing, repelling, paralleling, differentiating, rivalling, leaning, twisting, mimicking, withdrawing, attracting, aggressing, warping, and other relations” (p. 8). It was through creatively thinking, gardening, teaching, and writing beside the enclosures of becoming teachers together that a métissage (Hasebe-Ludt, Chambers, & Leggo, 2009) of narratives emerged that I describe as a pedagogy of enclosures.

This pedagogy of enclosures becomes a way of ethically attending to and creatively engaging with the boundary-making practices that are always present when things, discourses, plants, animals, and people come together, particularly in pedagogical encounters. Settler colonialism
and decolonization (Denzin, 2008; Gaztambide-Fernández, 2012; Scully, 2012; Simpson, 2014; Tuck & Yang, 2012) become necessary frameworks for unsettling relations with gardens, teaching, and land, since enclosures, such as Donald’s (2012) concept of frontier logics and the pedagogy of the fort,\(^3\) are constantly constraining the possibilities for becoming teachers together. As such, while this research leans toward settler colonial studies and land education\(^4\) (Tuck, McKenzie & McCoy, 2014), I recognize the need for future work to focus more specifically on settler colonialism in garden-based education wherein Indigenous scholarship and understanding settler colonialism become central to the research process. However, in attending to pedagogies of enclosures more generally (particularly, though not exclusively, settler colonial boundary-making practices) through a humble stance of loving criticality (Rogoff, 2008), I hope to compel educators to creatively and ethically attend to boundary-making practices in education, in gardening, and in research itself.

**When theories and methodologies grow together**

In the following pages, I outline the central theoretical and methodological frameworks that have shaped this dissertation. I begin with the theoretical frameworks and then turn to methodological considerations; however, in this process-oriented work of conceptualizing, planting, reflecting on, teaching within, and responding to the installation series, theory did not proceed the creative process of arts-based research undertaken in this study. In this dissertation, theories and methodologies grew together. Throughout the entire process, I have engaged in

---

\(^3\) Donald’s (2012) analysis of the pedagogy of the fort holds particular meaning for me, since I worked as a historic park interpreter at Fort William Historical Park in Thunder Bay in 2005. As a white woman with agricultural experience, I was hired to portray the life of a Métis woman who presumably would have lived inside the fort and worked on the fort’s farm. One day, a young boy visiting the museum asked me about the First Nations people living in the tipis outside the fort walls. “I know that you’re acting,” he said to me while I mucked out the cow stalls dressed in moccasins and a cotton version of a Métis dress. “But the ones outside the fort in the tipis, they’re real, right?” It was a terrifying revelation, and my response was muddled confusion as I tried to stay ‘in role’ as per my job requirements and attend to the complex ethical issues this boy’s question had raised. As Donald wrote, “Fort pedagogy works according to an insistence that everyone must be brought inside and become like the insider, or they will be eliminated” (p. 44).

\(^4\) According to Tuck, McKenzie and McCoy (2014), “Land education puts Indigenous epistemological and ontological accounts of land at the center, including Indigenous understandings of land, Indigenous language in relation to land, and Indigenous critiques of settler colonialism. It attends to constructions and storying of land and repatriation by Indigenous peoples, documenting and advancing Indigenous agency and land rights…Land education, as we have constructed it here, emphasizes educational research that engages acute analyses of settler colonialism as a structure, a set of relations and conditions” (p. 13)
conversations with theorists, colleagues, and the land (many of these conversations entered into my research journal and appear throughout the dissertation). Conversing and thinking with theorists (Jackson & Mazzei, 2012) takes place while I am doubting, dreaming, regretting, worrying, forgetting, remembering, reading, writing and, of course, digging, weeding, planting, harvesting, and teaching.

Through inquiring into the boundaries between some key binaries in western Eurocentric (nature/culture, teacher/student, mind/body, wild/domesticated, male/female, human/animal, etc.), this dissertation has been shaped by conversations in feminist science studies (Haraway, 2004), posthumanism (Barad, 2003; Sundberg, 2010, 2014; Whatmore, 2006), actor-network-theory (Gough, 2009; Latour, 2004), and material feminisms (Alaimo & Hekman, 2008). Indigenous scholarship (Apffel-Marglin & PRATEC, 1998; Cruikshank, 2005; King, 2013; Kuokkanen, 2007; Marker, 2006) intersects with and unsettles much of this Eurocentric theorizing, and has been a necessary and productive gift that I have received in this research and attempted to linger beside, rather than ‘drawing on’ or ‘using’ these heterogeneous and particular knowledge traditions and practices in this research. Before delving into the significant contributions these theories have brought to this work, however, I would like to acknowledge two related limitations. First, the theoretical stances upon which I draw are currently very popular in certain academic circles, with a profusion of work emerging that experiments with new materialist and Deleuzeguattarian language, theory, and methodologies (Springgay & Rotas, 2014; see also Jackson & Mazzei, 2012). At some level, this theoretical and methodological innovation is exciting and feels like something is finally happening in academia to “shake the tree” (Gough, 2009) of knowledge that scholars have inherited and upheld for so long. However, as with all things, this theoretical shift is framing who and what is ‘in’ in academia, boundaries marked by enclosed citation traditions, exclusionary language conventions, and what I sense as many scholars’ lack of positioning regarding their complicity in framing who and what belongs in this emerging theoretical landscape. This brings me to my second area of concern, since what is currently not sufficiently recognized in these theoretical conversations is the work of Indigenous scholars on reconfiguring, unsettling, and decolonizing the entire grounds upon which it is possible to even conceive of a nature/culture binary.
As I have already hinted at above, while feminist science studies, posthumanist, and material feminist theory are committed to reworking some key binaries in western thought, the relationship of these Eurowestern epistemologies with Indigenous scholarship is a significant area of tension within material feminist and posthumanist scholarship (and within this research). In many cases, Indigenous knowledge remains marginal and romanticized or erased, silenced, and appropriated (see the critique of Latour’s work and the ontological turn in Todd, 2014). For instance, in their important collected edition introducing the notion of material feminisms, Alaimo and Hekman (2008) stated in the introduction, “The essays we have collected here are seeking to define what Bruno Latour calls a ‘new settlement,’ a way of understanding the relationship between discourse and matter that does not privilege the former to the exclusion of the latter” (p. 6). Unfortunately, as I suggest above, this collection is interested in ‘new settlements’ in terms of human/nonhuman collectives but is silent on unsettling colonialism and recognizing the work of Indigenous scholars in these discussions. As a nonindigenous scholar, Juanita Sundberg (2014) echoed my concerns by writing, “Despite my enthusiasm, I am concerned that posthumanist theory remains within the orbit of Eurocentred epistemologies and ontologies. Indeed, the literature continuously refers to a foundational ontological split between nature and culture as if it is universal” (p. 35). Separating nature and culture (as I admittedly do in this dissertation), however, is not a universal split recognized by all cultures and, likely, all species. Indigenous scholars, such as Sami scholar Rauna Kuokkanen (2007), have recognized how academia “is founded on very limited conceptions of knowledge and the world. Because of this constrained perception, the academy cannot even grasp or hear views that are grounded in other epistemic conventions” (pp. 2–3). This “epistemic ignorance” (Kuokkanen, 2007, p. 6) makes Indigenous knowledge incommensurable with Anglophone Eurocentric academic theory and practices. Sundberg (2014) acknowledged these divides and the particularities of Indigenous epistememes, which is why she consciously maintained—as I have also in this dissertation—“an analytical separation between posthumanist theory and Indigenous epistemes even as there may be overlapping themes and goals” (p. 34). Rather than overcoming these incommensurabilities or potentially misappropriating diverse Indigenous knowledge practices, my work as a white Anglophone Eurocentric academic is to linger beside (Sedgwick, 2003) these differences and begin the humble act of explaining myself.
Okanagan scholar Jeannette Armstrong (as cited in Regan, 2010) wrote of this act of ‘explaining myself’ through the language of gardening:

Imagine how you as writers from the dominant society might turn over some of the rocks in your own garden for examination. Imagine … courageously questioning and examining the values that allow the de-humanizing of peoples through domination…. Imagine writing in honesty, free from the romantic bias about the courageous “pioneering spirit” of colonalist practice and imperialist process. Imagine interpreting for us your own people’s thinking towards us, instead of interpreting for us, our thinking, our lives, our stories. (pp. 234–235)

By turning over the rocks in my own garden, Indigenous knowledge systems are not the object of nonindigenous research. Rather, “the decolonizing project reverses this equation, making Western systems of knowledge the object of inquiry” (Denzin, 2008, p. 439). Denzin (2008) described his own difficult positionality as a nonindigenous scholar who nevertheless seeks to be an allied other, “a fellow traveler of sorts, an antipositivist, an insider who wishes to deconstruct the Western academy and its positivist epistemologies from within” (p. 439). This methodological stance, Denzin (2008) continued, questions objectivity and neutrality, acknowledges the moral and political nature of research, can be autoethnographic, participatory, and collaborative, and, it can also be humble. This humility is necessary, since otherwise nonindigenous scholars risk recentring white, settler narratives (see Guthman, 2011), rather than sharing knowledge-making practices that acknowledge, receive, and reciprocate the gifts of Indigenous scholars.

Sundberg (2014) offered excellent suggestions for nonindigenous scholars who are committed to doing what Spivak described as one’s “homework” and decolonizing posthumanist theory and methods by locating one’s epistemological and ontological assumptions. These decolonizing practices include a commitment to learning from and engaging with Indigenous scholars actively contributing to the conversation on reframing western academic discourses and practices; acknowledging the particularities within Indigenous scholarship and between Indigenous and non-Indigenous scholarship; and attending to performances by which we call “forth imaginaries of modern, well-educated Selves and naive, superstitious Others” (Sundberg, 2014, p. 37). In addition, ecohumanists in Australia (Plumwood, 2002; Rose & Robin, 2004) have recognized the significance of Indigenous thought in confronting and exploring alternatives to socially and ecologically destructive Eurocentric, colonial, patriarchal, and religious
dichotomies. Similarly, Somerville, Power, and de Carteret (2009) acknowledged, “Australian scholars and researchers cannot begin to articulate a position about place without confronting the complex political realities of the relationship between Indigenous and non-Indigenous relationships in place” (p. 7). Through a decolonizing feminist materialist framework, it is my hope that garden-based education and research can offer new settlements for the practices and scholarship loosely assembled under the headings of material feminisms, posthumanism, and feminist science studies, as well as educators and researchers working in school gardens, place-based education, and environmental education more generally.

While there are no perfect solutions to these ethical binds, material feminist, posthumanist, and Indigenous scholarship—combined with arts-based research and contemporary installation art theory (which I address in the following section)—offer unique theoretical and methodological positions and practices that can contribute to reconfiguring the relationship between gardens, land, and education. For instance, gardens were unique material and discursive spaces for this research since they are an example of naturecultures (Haraway, 2004) that defy clear boundaries between nature and culture, yet, simultaneously, the act of gardening creates the very enclosures that, one could argue, separate domesticated land from wilderness. Sundberg (2014) offered a useful definition for posthumanism (specifically, posthumanist geographies) in this regard, which “contests dualist ontologies in Anglo/European political philosophy by showing how a multiplicity of beings cast as human and nonhuman—people, plants, animals, energies, technological objects—participate in the coproduction of socio-political collectives” (p. 33). This definition illustrates how gardens figure as human and nonhuman assemblages, and how becoming teachers together with gardens offers the possibility for growing complex socio-political collectives.

Karen Barad’s (2003) work has been pivotal in bringing forward posthumanist theorizing; she argued that not only are humans and matter co-participants in socio-political collectives but that human knowledge systems are inherently material and discursive performances. She described her stance as onto-epistemological, since it recognizes that practices of knowledge cannot be claimed as purely human, as they are always implicated with being in the world. Helpful for my thinking around gardens and a pedagogy of enclosures, Barad (2003) is very
sensitive to boundary-making practices and what is at stake when certain discourses or matters are claimed to exist within or outside of human knowledge:

In the case of the geometry of absolute exteriority, the claim that cultural practices produce material bodies starts with the metaphysical presumption of the ontological distinction of the former set from the latter. The inscription model of constructivism is of this kind: culture is figured as an external force acting on passive nature. (p. 825)

Destabilizing taken-for-granted boundaries that inscribe activity and agency to human culture while categorizing nature and materiality as passive or a blank slate awaiting cultural inscription or representation is at the heart of posthumanist theorizing. Haraway’s (1991, 2004, 2008) work in feminist science studies—spanning her groundbreaking *A Cyborg Manifesto* (Haraway, 1991) and more recent book on companion species, *When Species Meet* (Haraway, 2008)—offered ironic and embodied reconfigurations of culture/nature, man/woman, natural/technological binaries. Haraway’s works in many ways set the tone for the scope and style of highly personal, political, and situated posthumanist conversations: literary, ironic, experimental, ethically engaged, unafraid of science, yet deeply sceptical of universalizing discourses calling for either a return to Nature or technological salvation, committed to both social and ecological justice, and sensitive to the relational nature of materials and discourses.

Inasmuch as material feminist scholars attempt to bring together materials and discourses in this emerging theoretical conversation, this is very dangerous territory.  

5 Stacy Alaimo and Susan Hekman (2008) made it absolutely clear at the outset of their edited collection that “materiality, particularly that of bodies and natures, has long been an extraordinarily volatile site for feminist theory” (p. 1). Via the powerful and productive contributions of postmodernist and postructuralist emphasis on discourse and socially constructed realities, feminism has examined the interconnections of power, knowledge, subjectivity, and language. However, as the editors suggested, “Although the postmoderns claim to reject all dichotomies, there is one dichotomy that they appear to embrace almost without question: language/reality” (Alaimo & Hekman, 2008, p. 2). Materiality is not simply the product of discourse and social construction; however, recognizing that “nature” is agentic requires a reconceptualization of nature.

---

5 This is similarly threatening for Indigenous and post-colonial scholars, since colonial discourses equally essentialize non-European bodies as wild or natural or at one with nature in order to further imperial claims to land and assimilationist policies (Friedel, 2011; Grande, 2004).
As Catriona Mortimer-Sandilands (2008) identified in her essay, feminist materialism allows for explorations that “draw on both phenomenological and social constructivist accounts of nature and embodiment to work toward an interrogative practice that includes the insights of both” (p. 286). My own rather confusing experiences with this onto-epistemological stance suggest that phenomenology and constructivism are mutually exclusive yet equally necessary commitments in material feminist research. Like Barad’s (2003) description of Bohr’s apparatus used to measure whether light is a particle or a wave that determined light is both, depending on the material configurations of the apparatus, many of my ways of thinking through this research vacillated between critical, constructivist, or discursive frameworks and more phenomenological modes of knowing that could allow for magic, mystery, uncertainty, love, and grief.

A material discursive theoretical stance, therefore, does not collapse two modes of knowing into one perfect, God-like view of the world. Instead, material and discursive performances of knowledge recognize the limitations of the very frameworks by which we attempt to know the world. Barad’s (2003) definition of discourse is helpful here, in that she did not define discourse solely as a synonym for language, linguistics, speech, written words, or representation. Instead, Barad (2003) wrote, “Discourse is not what is said; it is that which constrains and enables what can be said” (p. 819). While these are complex theoretical concepts, methodological approaches (such as arts-based research) that recognize the place of materiality in shaping human knowledge are helpful, since they insist that “knowledge is emergent and contingent upon material practice” (Hicks & Beaudry, 2010, p. 20). This materiality of knowledge practices is central to material feminist and posthumanist theorizing.

Finally, Alaimo and Hekman (2008) suggested,

Material ethics allows us to shift the focus from ethical principles to ethical practices. Practices are, by nature, embodied, situated actions. Ethical actions, which unfold in time and take place in particular contexts, invite the recognition of and response to expected as well as unexpected material phenomena. (pp. 7–8)

It is in the spirit of these ethical practices that I have engaged in materially and discursively ‘growing a dissertation’ on the relationship between education and gardening. By focusing on a critical history of German and Canadian school gardening as well as my personal implications in this history and in the ongoing material and discursive performances of enclosure in teaching and
gardening practices, I hope to engage in ethical and decolonizing material feminist research practices. In a small and humble way, I have also attempted to decolonize these frames while imagining new possibilities for teaching and living together generatively with land.

**Situating the research within a methodological métissage**

Entangling theory and methodology, as the previous section and Barad’s (2003) call for an onto-epistemology suggested, has been a generative way to mobilize posthumanist and material feminist theorizing and respond to Indigenous scholars’ (such as Kuokkanen, 2007) critique of the academy. Methodologically, these shifts to include materiality and the nonhuman as active co-constituents in the research process have created spaces for new research practices that challenge the centrality of human language in qualitative research. As Haraway (2004) said,

Facing the harvest of Darwinism, we do not need an endless discourse on who speaks for animals, or for nature in general. We have had enough of the language games of fatherhood. We need other terms of conversation with animals, a much less respectable undertaking. The point is not new representations, but new practices, other forms of life rejoining humans and non-humans. (p. 141)

This practice turn (Whatmore, 2006) in posthumanist methodologies calls for experimentation, risk-taking, and a rejection of “the signal monopoly of the word” (Haraway, 2004, p. 166). Cultural geographers Whatmore (2006) and Hinchliffe, Kearnes, Degen, and Whatmore (2005) experimented with

the urgent need to supplement the familiar repertoire of humanist methods that rely on generating talk and text with experimental practices that amplify other sensory, bodily and affective registers and extend the company and modality of what constitutes a research subject. Second, the experimental demands of ‘more-than-human’ styles of working place an onus on actively redistributing expertise beyond engaging with other disciplines or research fields to engaging knowledge practices and vernaculars beyond the academy in experimental research/politics. (Whatmore, 2006, pp. 606–607)

Environmental educators Oakley et al. (2010) and Russell (2005) reminded researchers of their own animality and to consider carefully how polyvocal research implicates the more-than-human, particularly nonhuman animals. These emerging methodological practices have significant implications for garden-based education researchers, since they open up spaces and interpretative modes for a multitude on nonhuman beings to participate in the research process. In particular, in this dissertation site-specific installation art practices and theory provided theory
and research practices to engage critically, creatively, and generatively with gardens. To bring the arts-based research process to life on the written page, I turn to life writing (Hasebe-Ludt et al., 2009) as the expressive form that brings together the methodological métissage of the research into a second-order performance (Pearson & Shanks, 2001), rather than a representation of the research outcomes and installation series. In the following sections, I turn to the practices of métissage with a focus on (a) arts-based research; (b) site-specific installation art and theory; (c) life writing, metaphor, autobiography, and historical research; (d) photography; (e) journaling, blogging, interviewing, and student teachers’ reflective Field Notes; and (f) plant participants (flax and fireweed).

**Arts-based research**

Before considering in more detail the practices and theory of arts-based research, I first want to acknowledge the collectives assembled at a particular place that truly made the methodological experimentation in this dissertation possible. In this regard, I have been immensely fortunate to study in the Faculty of Education, Department of Curriculum and Pedagogy, at UBC. Siting my research within this Department and University not only enabled me to build the partnerships required to teach student teachers in The Orchard Garden, but it also fostered the unique conditions required to enable such experimental, arts-based research in the first place. The Faculty of Education at UBC is the home of internationally recognized arts-based researchers including Rita Irwin, Dónal O Donoghue, Peter Gouzouasis, and Kit Grauer in the Department of Curriculum and Pedagogy, as well as George Belliveau and Carl Leggo in the Department of Language and Literacy Education. Through the arts-based research scholarship circulating in the academic community where I was a doctoral student, I was supported in imagining other ways of researching in which I could include materiality and the nonhuman in creative, risky research methodologies.

The term arts-based educational research originated in 1993 through the work of Elliot Eisner (see Barone & Eisner, 2012). Barone and Eisner (2012) defined arts-based research as the creation of an expressive form that enlightens and enlarges human understanding and “is an evocative and emotionally drenched expression that makes it possible to know how others feel” (p. 9). According to O’Donoghue (2009), “Arts-based educational research is founded on the
belief that the arts have the ability to contribute particular insights into, and enhance understandings of phenomena that are of interest to educational researchers” (p. 352). Haywood Rolling Jr. (2014) suggested that good arts-based research requires a reflexive and observant artistic practice and “offers up analytic, synthetic, critical-activist, and improvisatory frameworks as tools for theory-building and cross-disciplinary innovation” (p. 166). While it is difficult to capture the depth and breadth of arts-based research, what has been vital for me in this research is the sense that these research practices are a form of critical research that is neither negative or utopic. Rather, arts-based research generates Haraway’s (2004) “deep sense that things might be otherwise” (p. 326) and “the non-necessity of this way of doing the world” (p. 329) through experimentation with the real (see Gough, 2010). From the classroom grid of flax plants to the threatening presence of fireweed spreading beyond its enclosure, thinking artistically within a garden with student teachers and particular plants has truly brought energy and academic vigour (rather than rigour!) to my research practices. As Bourriaud (2002) wrote, “Artistic praxis appears these days to be a rich loam for social experiments, like a space partly protected from the uniformity of behavioural patterns” (p. 9). The rigid data collection regimes, coding practices, and writing styles of many qualitative and quantitative research methodologies certainly have their place in constructing human knowledge and shaping material relations with the world; however, these do not encompass the totality of human material and discursive practices of knowing and being in the world. As such, good arts-based research offers the possibility for asking new questions and experiencing—even creating—the world differently.

Determining what makes good arts-based research, however, is a complex undertaking. According to O’Donoghue (2009), the challenge for arts-based researchers is to position art-based inquiry in particular artistic communities of practice, in which the processes, practices, theories, histories, responsibilities, and criteria for evaluation are understood and integrated into the art-making practices of the research process. O’Donoghue (2009) expressed his concern that arts-based researchers have drawn largely upon philosophy and aesthetics to understand art, rather than a wider range of intellectual traditions including sociologists, cultural theorists, critical art historians as well as the practices of artists themselves. In order to address this concern, I have drawn on the work and ideas of a number of artists: Sharon Kallis, Ron Benner,
Debra Sparrow, Rebecca Belmore, and Hans Haacke. Each artist has, in his or her own way, informed my ways of imagining gardens, education, and research itself differently.

It all began with a chance encounter. One day, I was browsing the library’s online catalogue searching for Gregory’s (2004), *The Colonial Present*, that a professor had recommended my class read. Fortunately, when I put in the search words, a book came up with the most intriguing title: *Gardens of a Colonial Present* (Benner, 2008). It was through this book—a retrospective of Ron Benner’s (2008) work with photographs and short essays written by numerous authors (including Benner)—that I encountered gardens as site-specific installations and contemporary art forms for the first time. The themes that Benner explored of plant-people relationships, migration, colonialism, empires, capitalism, enclosures (Indigenous peoples in prisons and reserves, knowledge, and plants), and ecology are all central concerns in my own work. For instance, by carefully tending to his garden installations, Benner’s gardening performances blur human/plant, art/non-art boundaries and suggested “a refusal to rank intellectual work above physical labour…. Each garden is a ‘thick description’ of its subject matter” (Patton, 2008, pp. 73–75). As part of this research project, I interviewed Ron Benner to learn more about his art practices and his thoughts about gardens as art installations, gardens-as-teachers, First Nations, and colonial history in relationship to plant/people vectors, and the material and philosophical underpinnings of his work.

While I have never met Ron Benner in person (our interview was by telephone on May 15, 2013), I did have the pleasure of meeting Sharon Kallis, the second artist who played a pivotal role in this research. I first met Sharon through her connection with Susan Gerofsky, our Faculty Advisor for the education team at The Orchard Garden (and a creative and supportive co-conspirator for all things garden-related with whom I have worked with closely since my master’s in the Department of Curriculum and Pedagogy). Sharon Kallis (2014) described herself as a community-engaged environmental artist, and it was her work with the Urban Weaver Project that intrigued me, since it I felt it created the space for a unique and nuanced exploration of our relationship with invasive species (and the languaging of these plants/people relationships) that challenges and disrupts conventional nature/culture binaries. Our interview on July 6, 2013 took place at the Means of Production garden, also known as the Means of Production Artists
Raw Resource Collective, where gardeners, artists, and community members come together to grow artists’ materials and to creatively reimagine community uses of a neglected city park.

Weaving communities together through participatory art is at the heart of Sharon’s art practice, and it was through the collective of community members and fibre artists that gathered with Sharon through The Urban Weaver Project (n.d.) at the MacLean Park Fieldhouse that I learned how to make and use a drop spindle with Penny Coupland, where I met Anik Choinière who was of invaluable assistance in learning to spin flax, where I got the contact information for the Flax to Linen (n.d.) project in Victoria, and where I could engage in creative conversations or happenings with Sharon and many others. It was also through Sharon’s work with Indigenous artists such as Todd DeVries (Haida) that I encountered the work of Debra Sparrow (2010), a well-known Musqueam First Nations weaver and artist.

In November 2012, I invited Debra Sparrow to participate in the indoor ‘&’ part of the installation series, *Threads sown, grown & given*, as part of a workshop and research event with student teachers.\(^6\) Although we had never met before the research event at the indoor installation, I had seen Debra’s weavings at the Museum of Anthropology, the Vancouver airport, at the First Nations House of Learning, and at events for the Year of Indigenous Education in the Faculty of Education, for which Debra had woven a ceremonial blanket. Debra’s artwork may not seem to function as installations, since most are objects such as her acclaimed ceremonial blankets; however, her storytelling draws on the practices of her art to weave together themes of education, Indigenous history, place, memory, and art. Debra Sparrow spoke about her concerns regarding viewing her art or Indigenous material culture as “objects”: “All these things that are in museums are pieces that reflected someone’s life, someone’s existence. They’re not objects. That in itself again is insulting to us, because that’s my families’ lineage, heritage—that which is perceived as an object” (Baird, 1997, p. 38). Her words echo Bourriaud’s (2002) theory of relational aesthetics, reminding people of the colonial frameworks that risk predetermining the value and meaning of artistic work.

---

\(^6\) I am grateful to Jeannie Kerr for encouraging me to contact Debra and invite her to participate in the research as a guest lecturer for Jeannie’s students.
In addition to my interactions with the artists Sharon Kallis, Ron Benner, and Debra Sparrow, I also studied Rebecca Belmore’s installations and performances (see Augaitis & Ritter, 2008) and Hans Haacke’s (see Flügge & Fleck, 2006) contributions to the development of installation art practices (especially his controversial installation, Der Bevölkerung, in a courtyard of the German Reichstag). Familiarizing myself with these artists’ works was important as it enabled me to learn about diverse artistic practices and theoretical discussions shaping contemporary art-making and theorizing. This contextualization was particularly important, as I have not formally studied art nor developed my own artistic practices, and I, therefore, had a steep learning curve ahead of me to learn from and to position my own art-making with Threads sown, grown & given within contemporary art practices and theorizing. While some arts-based researchers have recognized that “anything well crafted, anything made with sensibility and imagination, anything that requires skill and the use of technique in order to create something that has an emotion effect is an artistic affair” (Barone & Eisner, 2012, p. 46), others, such as O’Donoghue (2009) called for close collaborations with practising artists in the research process. Notwithstanding the close engagement with Sharon Kallis and learning from the work of Benner, Belmore, and Haacke, I nevertheless recognize that a limitation to this research has been the lack of extensive collaboration with professional artists. As a result, I have attempted to cautiously and humbly create what I understand more as artistic encounters rather than labelling myself as an artist or creating artworks. Attending to these encounters has generated powerful and enriching situations that have propelled this research project.

As Irwin and O’Donoghue (2012) suggested, arts-based researchers can draw on Bourriaud’s notion of relational aesthetics, in which the artwork is not an object but a social process and an event in a particular space or context that is offered to the audience as a gift: “Art as an encounter is a relational activity where we can observe our own patterns of behaviour and idea creation through our own and other’s monitoring and enquiry” (p. 231). While the material things, nonhuman creatures, and places in this site-specific arts-based research installation series are of utter importance to the knowledge and situations created, it is in the spirit of these relational encounters—between humans and within the more-than-human—that art-making becomes research and a way of being differently in the world.
Site-specific installation art

This arts-based research drew particularly on the art theory and practices associated with site-specific installation art. According to O’Donoghue (2010), “Installation art is used to describe artworks that are produced at the exhibition site; that are usually dependent on the configurations of that space; and that require viewers to physically enter into the work and experience it in place” (pp. 402–403). Artists who engage in site-specific art and performances do so because they are deeply intrigued by the processes of creating temporally and spatially responsive situations in which site, artist, and spectator co-create meaning and new relationships emerge in an encounter that cannot be replicated or commodified. As O’Donoghue (2010) wrote, there are numerous dimensions to installation art forms and artistic practices; however, firsthand experience of the space and active spectatorship or participatory engagement are key elements. The viewer’s participation in the work is frequently embodied and engages multiple senses, since, as Julie Reiss (as cited in O’Donoghue, 2010) wrote, it is the “desire [of the art installation] to shake the spectator out of a passive, spongelike state and instead have a self-determined, active experience” (p. 403). Since site-specific installation art emerged in the 1960s and 1970s as an alternative to and critique of institutionalized and commodified art, many installations are ephemeral and only exist for a particular moment in time, in a particular place. However, museums and galleries are increasingly bringing installation art exhibits back into gallery spaces (O’Donoghue, 2010) and enabling a permanency and marketability not always possible elsewhere, which puts into question whether it is the constancy of the artist rather than the site (Kwon, 1997) that is the most defining feature of installation artworks that are replicated and relocated to new sites and contexts around the world.

To resist the intellectual attraction to fluid, nomadic subjectivities and spatialities, Kwon (1997) advocated for site-specific art practices situated between mobilization and specificity through an emphasis on “relational specificity” (p. 110). Relational specificity requires long-term commitments and relationships between the fragments and sites of people’s lives, not their “undifferentiated serialization, one place after another” (Kwon, 1997, p. 110). On the one hand, this insistence on site and context in installation art suggests that there is no rational, autonomous knowing subject. However, contradictorily, this decentred subject is being asked to engage experientially and actively in creating the work, a position that “repeatedly valorizes the viewer’s
first-hand presence – an insistence that ultimately reinstates the subject (as a unified entity), no matter how fragmented or dispersed our encounter with the art turns out to be” (Bishop, 2005, p. 130). Caught in this double bind, Bishop (2005) suggested,

What installation art offers, then, is an experience of centring and decentring…. In other words, installation art does not just articulate an intellectual notion of dispersed subjectivity (reflected in a world without centre or organizing principle); it also constructs a set in which the viewing subject may experience this fragmentation first-hand. (p. 130)

In his critique of Claire Bishop’s poststructuralist stance, Grant Kester (2011) focused on the irreducibly ‘oneness’ of Bishop’s theorizing, which is shaped, he argued, by fears of coercive, instrumentalized consensus and ongoing attachments to possessive individualism and the creative genius of the solitary artist. Instead, in The One and the Many, Kester offered examples of radical plurality and collaboration in contemporary collaborative art practices. These lively scholarly conversations are provocative and were important for this particular research project that explored how things—human and nonhuman, material and discursive—come together in pedagogical relationships. Exploring the boundaries of these relationships and what comes in and what is left outside the enclosures of the garden, the classroom, and this research has been an enriching research methodology with which to think, teach, and garden differently.

One of the challenges of arts-based research, particularly site-specific installation art and its inherent specificity to experiences and relationships that emerge in a time and place, is that the meaning of these experiences can never be represented in a written text such as this dissertation. Pearson and Shanks (2001), through their work in performance studies and archaeology, asked the difficult questions of “how to represent ephemeral, temporal, and site-specific events? What are the traces that remain? How are these events retrieved, recorded, and reassembled?” (p. 9). Rather than representations, these recontextualizations can be thought of as a “second-order performance, as a creative process in the present and not as a speculation on past meaning and intention” (Pearson & Shanks, 2001, p. 59). In addition to the images, autobiographic narratives, chronologies, diagrams, scripts, material lists, forensic site reports, and so on that can be used to construct a second-order performance, Kaye (2000) signalled the significance of the body at the centre of documentation (p. 153). What emerges from these recontextualized performances is a recognition that “where the site cannot be read, represented, or thought without the very mapping which threatens its erasure, the site’s documentation is used to foreground the paradoxes of
representation itself” (Kaye, 2000, p. 217). Documentation and representation, therefore, are not
antithetical to site-specificity but are necessary in order to constantly destabilize and re-draw the
lines between experience and interpretation. As Papastergiadis (2006) suggested art and writing
are driven by the need to address (not answer) a question and stated, “Writing is grounded in the
materiality of thought…. All thinking is metaphorical. It is, by comparing, juxtaposing,
translating, narrating, repositioning—that is by assembling—that we create and think. In this
sense, writing and art have a common root” (p. 206). Life writing and praxis of métissage
(Hasebe-Ludt et al., 2009) become a method for assembling and writing a vivid and provocative
second-order performance of *Threads sown, grown & given*, documented via photographs, my
research journal, student writing, and interview notes.

**Life writing, metaphor, autobiography, and historical research**

I recognize that, as Laurel Richardson (as cited in Gough, 2010) wrote, “Writing is a method
of discovery, a way of finding out about yourself and your world” (p. 49). As such, a
methodology of life writing is consistent with my interest in the practice turn, as well as the
materiality, physicality, technology, temporality, and location that are entangled within the
written words that appear on the page. Furthermore, arts-based researchers working in
a/r/tography have recognized that “to be engaged in a/r/tography means to inquire in the world
through both processes [artful inquiry and writing], noting they are not separate or illustrative
processes but interconnected processes” (Irwin & Springgay, 2008, p. xxviii). Writing beside the
installation series, *Threads sown, grown & given*, has been a form of curriculum inquiry, a
métissage of journal entries, philosophical musings, educational propositions, photographs,
memoirs, blog posts, and other ways of creatively engaging language to write about what comes
together when becoming teachers with a garden.

Life writing and métissage were powerful practices for attending to the threads of becoming
teachers together within this dissertation. Moreover, considering that “métissage is derived from
the Latin *mixticius*, meaning the weaving of a cloth from different fibres” (Mish, as cited in
Hasebe-Ludt et al., 2009, p. 35) and also refers to the Greek Metis, goddess of art and wisdom, it
is very fitting that this methodological frame draw metaphorically and practically on weaving
different fibres, since the site-specific installation and its associated performances centre around
material and discursive threads, particularly the materiality of linen threads spun from flax fibres sown and grown at The Orchard Garden as part of the installation series. Furthermore, the threads of this dissertation—about a garden, student teachers, and my personal stories of becoming teachers together—are of very disparate things coming together, and not always comfortably. As Hasebe-Ludt et al. (2009) wrote, “Métissage affirms, rather than polarizes, difference (Lionnet, 1989) and calls those who practice métissage to create an aesthetic product that combines disparate elements without collapsing or erasing difference” (p. 35). My use of figurative language in this dissertation, particularly metaphor, has been one attempt at not collapsing either materials or discourses into one another, even in textual writing practices.

As the title of the installation series suggests, *Threads sown, grown & given* is redolent with metaphor. Researching and writing with metaphors is part of a/r/tographic practices (Irwin & Springgay, 2008), and continuously returning to and reworking the metaphors in this research, particularly those of the thread and the frame, has been a generative practice. Metaphors conventionally draw on material reality to express abstract ideas, in which an object or concept is carried over (*meta*: across, over; *pherein*: carry) to describe a different object or concept. In this dissertation, the *threads* are many things and ideas that have been useful for me in thinking and enacting teaching relationships differently. The challenge, however, is not to use metaphors complacently but to continuously keep them open to negotiation. As Law (2004) wrote, social scientists need to

*keep the metaphors of reality-making open*, rather than allowing a small subset of them to naturalize themselves and die in a closed, singular, and passive version of out-thereness…thinking, instead, in terms of *degrees* of enacted reality, or more reals and less reals. That we seek practices which might re-work imaginaries. That we work allegorically. (pp. 138–139)

Others, such as St. Pierre and Pillow (2000) suggested figurations are more disruptive than elegant metaphors (I admit that *Threads sown, grown & given* is haunted by a tendency toward elegant, settled, coherent, and linear metaphors). St. Pierre (1997, as cited in St. Pierre & Pillow, 2000): “These figurations … are cartographic weapons … that propel them into the turbulence masked by coherence, [and] these feminists use figurations as practices of failure, tools of ‘rigorous confusion that jettison clarity in favour of the unintelligible’” (p. 281). This is one reason why, in an effort to unsettle my use of particular metaphors, I have turned the installation
series inside out and written the dissertation in reverse order to the actual chronology. Furthermore, as it becomes clear in each thematic chapter, metaphorical threads have been unruly figures to work with, and plant-based metaphors in particular have acquired a neo-literal vitality (Braidotti, 2009). For instance, growing flax, processing linen, learning to use a drop spindle, and encountering fireweed have brought metaphors, particularly the metaphor of the thread, to life in unexpected ways, so that the complacent, coherent, and worn-out comparisons of threads to memories, stories, inter-connections, knots, entanglements, and journeys were revitalized and contributed dramatically to the research process.

In their work on life writing, Hasebe-Ludt et al (2009) described collaboration as being a key part of autobiographical work. In addition to plant-person collaborations, my work with Jeannie Kerr begins to hint at what collaborative doctoral research could become. Jeannie contacted me in 2012, interested in bringing her Philosophy of Education class to the garden for a visit. When I shared with her that I was looking for participants for my research project, she was immediately intrigued. After reading my proposal and meeting at the garden to talk about our respective research and discuss ideas for the class visit, it was clear that coming together as collaborators for my research would be enriching for both of us—and hopefully for our students as well. In the end, Jeannie participated in all three research events associated with Threads sown, grown & given at the garden (twice as the instructor for different cohorts of student teachers, and once alone). During this journey together, The Orchard Garden, our conversations, and our co-teaching with the garden worked their way deeply into Jeannie’s dissertation (see Kerr, 2013). In many ways, my journey of becoming scholar/teacher has been shaped by my relationship with Jeannie, her generous mentorship, and the Indigenous scholars with whom Jeannie is in constant conversation.

Through Jeannie, I have recognized the significance of participating in a “decolonizing autobiography” (Haig-Brown, as cited in Kerr, 2013, p. 230), and the importance of situating myself within this research as a white, middle-class, highly educated, able-bodied German-Canadian settler woman. As such, this research is not arbitrary in focusing specifically on the difficult history and ongoing legacies of school gardening in Germany and the Canadian residential school system. However, while it is increasingly a convention in academic writing to extensively situate the author in the introductory pages, I have woven autobiographical threads
throughout the dissertation that touch on my German-Canadian settler heritage, my teacher education experiences, and my life as a mother/academic to create a meshwork (Ingold, 2013) of narratives wherein the enclosures of my partial perspective and privileges become apparent.

This autobiographical writing, however, challenges notions of the “I” that occupies modernist and humanist positions of the author in writing about his (or, less often, her) own life story. While Butler (1999) recounted the opacity and limits of the autobiographical “I” in language, material feminist accounts have challenged the normativity of speciesism in a purely anthropocentric subjectivity (Braidotti, 2009). In the spirit of ‘coming together’ that the threads of this dissertation attempt to gather, “the graphe of autobiography is a relational rather than a solitary act, and it is in and through the writing that relations, previously unrecognized, become visible and audible for the writer” (Hasebe-Ludt et al., 2009, p. 29). Autobiography—like the posthumanist and material feminist theorizing in this dissertation—does not offer a unified, coherent representation of a contained self. The métissage of texts I have brought to this dissertation were “selected and braided in such a way as to highlight both points of affinity (Haraway, 1994) and dissonance” (Hasebe-Ludt et al., 2009, p. 9). This work in which I taught and researched myself in relation with the more-than-human worlds of the garden and with the student teachers of the teacher education program is part of the autobiographical thread of this dissertation, in which I consider my own becoming scholar/teacher. Furthermore, since the majority of school garden proponents are white and female, Strong-Wilson’s (2008) call to bring memory forward through autobiographical research holds particular relevance, since, as she stated, white teachers are “the most recalcitrant of learners when it comes to challenging their own memories and experiences of privilege and race” (p. 2). Re-writing posthumanist autobiographies requires attending to human-animal becomings (Braidotti, 2009) and other minoritarian, anomalous, inorganic becomings and affinities.

Concerned as I am about restor(y)ing the history of school gardens within my ethical obligations as a German-Canadian settler woman, the second chapter of this dissertation is a critical history of school gardening, which begins with Epicurus’ Garden School in ancient Athens but dwells specifically in the discomforting texts that promoted school gardening and farming in the Indian residential school system and during Nazi Germany. Conducting historical research was a key element to this study and the installation series at the heart of my research.
process. Responding to history, being touched by the past, was a way of decentering the self and reconfiguring the notion of what and who is a teacher:

To receive the past as teacher — or, in Derrida’s words, as “the gift of the ghost” — means being open to questions we did not even know we had, and to learning not only what we seek to learn, but also that which might shatter our knowledge, our identities, and our self-understanding. To receive the past as teacher thus means that we risk being changed — perhaps profoundly — by our engagement with that which we might otherwise seek to avoid. (Chinnery, 2010, p. 402)

This historical research propelled me to respond (Cole, 2007; Simon, 2006) to the clamouring calls or traces of testimony that demand something of me.

Historical research is not just a process of excavating temporally situated, discursive facts and revealing their relevance for present-day conversations—it can also be materially situated (Barad, 2003; McGregor, 2004; O’Donoghue, 2010; Pearson & Shanks, 2001; Whatmore, 2006). Considering historical research as a material practice can lead to radical divergences from traditional research practices. Through the installation series, Threads sown, grown & given, I have explored how arts-based research and site-specific installation art in particular can serve as a 3D research text, different, of course, from the traditional research text in so far as it provides a different narrative structure, rupturing the linear nature of such text and comprising a series of discontinuous and partial stories in a space where meaning is generated through interaction and negotiation. (O’Donoghue, 2010, p. 413)

Through autobiographical research alongside a site-specific installation series, I have attempted to generate historical research that does not treat the earth and material relations as the invisible and passive backdrop to a uni-directional sequence of human activities. Nor does it treat history as a thing of the past but rather a living landscape which continues to affect us all—albeit differently and unevenly—today. Our personal and collective responses to this living history, however, remain undetermined and full of new possibilities for decolonizing pedagogies and solidarities (Gaztambide-Fernández, 2012).


**Photographs and photography**

Photographs and photography played a significant methodological role in this research.\(^7\) I selected historical photographs of school gardens at residential schools, in industrial and wartime North America, and in Germany before and during the Nazi regime to become part of the installations series, *Threads sown, grown & given*. Inspired by Benner’s (2008) use of black and white photographs in his garden installation to create unsettling juxtapositions and connections between different times and places, I transferred these historical images onto canvas windows that hung on the frame of the installation during *Threads grown*. Later, these same windows were part of the indoor ‘&’ installation, and the canvas became part of the memory bundles that research participants knotted into linen spider webs as reconciliatory gifts to the garden in *Threads given*. Moreover, the practice of photography is how I documented, interacted with, and came to know the installation series. The act of photography became a ritual performance that led me through the garden, focused my attention on particular details, and framed how and what I was seeing and experiencing at the installation. Time-lapse photographs (see Ostertag, 2015) that I took from five fixed positions around the installation at the garden are a record of changes at the installation. The photographs are also a trace of my own presence at the installation, since the photographs were not taken during regular intervals but randomly whenever I was at the installation. Finally, the photographs themselves became material traces of an ephemeral, site-specific installation series that conform to certain photographic aesthetic conventions but also exceed these frames as they circulate in relation to participants’ reception at the installation series, in this dissertation, and on the blog (Ostertag, n.d.).

There has been much written on the role of photography and photographs in terms of historical education research (Grosvenor, Lawn, & Rousmaniere, 1999; O’Donoghue, 2010; Spike, 2010), materiality (Butler, 2010), and the relationship between photography, art, and

---

\(^7\) Videography and video ethnography (MacLure, Holmes, MacRae, & Jones, 2010) also played a small role in the research process since occasionally I would create video recordings at the installation space in addition to still photographs. I also set up a video camera during the second research event to record conversations, although I only focus on the audio elements of these films in this dissertation. While some of these videos capture movement and sounds that still photography can only hint at, the video recordings played a minor role while I wrote this dissertation—although I have integrated the recordings on the research blog (see Ostertag, 2012) and in conference presentations. In future arts-based research, I would like to revisit the importance of videography; however, perhaps by working in collaboration with a videographer, as this is an art practice that I find particularly challenging.
events (Reiss, 1999; Sontag, 1977), and it is not within the scope of this project to consider these questions in detail. Rather, my camera was a constant companion throughout the research project, and the practices of photography and my entanglements with this technology became active in co-constituting the stories I tell in this dissertation. As Papastergiadis (2007) wrote, “The camera is not a recorder of evidence, but a companion in the act of witnessing and a relay device in the interminable network of message making” (p. 147). For instance, as much as this dissertation emerged from a critique of grids and conformity and a desire to create conditions for learning to live in entangled relations with the more-than-human, it is ironic that I felt compelled to set the view finder of the camera (a Canon G10) on a 9-part grid to ensure that the time-lapse series was consistently positioned. Also, the compact size of the camera meant that it was readily available to take photographs while I gardened. For the most part, I operated the camera in “automatic” mode, due to limited photography skills and a desire to document quickly and efficiently while I was busy with the work of gardening the installation. These material conditions, of course, shape the image and my relationship with the content of the photographic images (both in the resulting photograph and the physical place and events across from the viewfinder that I was attempting to document).

The relationship between the photographer, camera, site or event, and the photograph itself is a complex entanglement, particularly in terms of the role the photograph plays in documenting an ephemeral, site-specific installation. As Butler (2010) wrote, in photography the frame is active yet invisible, and the viewer “assumes him or herself to be in an immediate (and incontestable) visual relation to reality” (p. 73). Indeed, viewing photographs and photography are acts of interpretation. Through this research and my considerations of a pedagogy of enclosures, I am fascinated by the way in which Butler (2010) reminded readers that showing the framing of the photo is “a disobedient way of seeing” (p. 72) and the implications of this disobedience for the teaching relationships made possible in environmental education. Neil Evernden (1993) took up the relationship between photography and the environment by drawing on Susan Sontag’s (1977) well-known essay, On photography. Familiar to park-goers, for instance, is the notion that taking photographs of natural places is considered an ecologically sensitive approach to relating with landscapes. However, Evernden’s concern is that photographic seeing encourages estrangement and voyeurism, rather than rapprochement that
grows out of relationships and respect. In terms of this research project, I have frequently sensed that, “despite the illusion of giving understanding, what seeing through photographs really invites is an acquisitive relation to the world that nourishes aesthetic awareness and promotes emotional detachment” (Sontag, 1977, p. 111; see also Evernden, 1993, p. 97). Indeed, acquiring photographs of the luminous, green flax grid was driven more by my compulsion to make and possess an aesthetic statement than to nourish emotional attachments or ethical engagements. However, my emotional connections to the project have always been much more convoluted than simple detachment, even while photographing what I sensed was the beautiful yet ecologically destructive monoculture grid of flax plants that I had planted at the garden. Furthermore, photographing affectively compelling images of fireweed in a garden poised for destruction was emotionally charged work that continues to resonate in the photographs and my memories that tie me to the garden.

Ultimately, I agree with Butler’s call to turn to the framing devices of photography rather than essentializing photographic practices, frequently in anti-technological terms (see Evernden, 1993; Ingold, 2013). For instance, Grosvenor (1999, pp. 90–97) suggested the following six practices for historians visualizing the past through photographs of classrooms that are helpful in exploring how photography and photographs are framing devices: (1) How does the photographer’s gaze frame the photograph? (2) How does technology shape the image? (3) What was its purpose? (4) How does the audience “read” meaning into the photograph? (5) How might titles, captions or words control possible meanings? (6) How does the photograph’s presentation alter its meaning? In addition, Spike (2012) suggested that historical, political, cultural, and economic circumstances play into historical photographs’ “production and original use, [and that] we can begin to recognize these photographs as complex sites through which meanings were, and continue to be, created and negotiated, rather than simply as quaint pictures of children” (p. 53)—or landscapes. Rousmaniere (2001) went on to explain how, through for instance montage, photographs can take on affective potentiality and an active role in historical research by shocking the viewer to loosen her or his grip on facts and consider personal memories. The unsettling impact of black and white images of school gardens and farms during and prior to Nazi Germany, at residential schools, during Industrial and war-time North America assembled in montages on the canvas windows of the installation contrasted with the vivid
greens of a garden in full growth and were anything but quaint. Instead, these photographs, now buried in weeds and excavation dirt piles, are haunting documents of genocide couched in the generative language of connecting children with the land.

Considering that the installation series is conditioned by being site-specific and ephemeral, and that these conditions were exacerbated by the impending ‘development’ on the site of the garden, Butler’s (2010) observation—drawing on Barthes—that we can be haunted by a photograph because it outlives “the life it documents; it establishes in advance the time in which that loss will be acknowledged as a loss” (p. 98), resonates painfully with this project. As such, the materiality of the photograph is more than a representation interpreted by the viewer, instead, “the photograph itself becomes a structuring scene of interpretation—and one that may unsettle both maker and viewer in its turn” (Butler, 2010, p. 67). I must admit an abiding sense of responsibility and a recognition of the grievability of life (Butler, 2010) that the frames of historical school gardening photographs and my own work and relationships with the installation series and the garden evoke in me (and hopefully permeate this work). In this dissertation, therefore, perhaps photographs of historical school gardening and a garden installation poised on the brink of destruction will outlive the life they documented, reminders of the ongoing presence of violence—past and present—and the precarity of all life.

**Journaling, blogging, interviews, and student teachers’ Field Notes**

In addition to photography and a small amount of videography, I also documented and reflected on the installation series extensively through my research journal, blogging, conducting interviews, and utilizing what I named Field Notes to allow the three groups of student teachers who participated in the research the space to write reflections during research events at the installation series. These research methods are more familiar to ethnographers and qualitative researchers, and in drawing on them I acknowledge that this arts-based research is a multi-modal form of qualitative inquiry (Irwin & Springgay, 2008, p. xxix).

My research journal spanned the time period from March 23, 2012 (first recorded journal entry), to August 14, 2013 (final recorded journal entry). Most of the journal entries are handwritten in two notebooks, although occasionally I wrote notes directly onto my computer when this was more convenient. I wrote in my journal each time I worked on the installation,
while I prepared for research events, after each research event, and whenever I sensed that writing was necessary to think beside the research project. The journal entries shift in tone and detail, at times descriptive, other times theoretical, and frequently filled with doubts, anxieties, and vulnerabilities. The writing in the journals is an example of what Elizabeth St. Pierre (1997) called transgressive data, which considers “the multiplicity of voice and the variation of standpoint … [and draws] upon the remembered, the dreamed and the imagined, as well as observations of the ‘real’, and challenges criticism as a form of knowledge with a singular and static point of view located in the here and now” (p. 23). This openness and responsiveness to a multiplicity of voices and standpoints in both my theoretical and methodological commitments shifts the position of the researcher as autonomous, rational arbiter of knowledge to one of a gardener who imperfectly assembles and constrains the materials and discourses that always exceed the enclosure of the theories and methodologies set to frame the study. I have attempted to thread parts of these journal entries, not without some apprehensions as to their unpolished writing style and excessive, confessional honesty, throughout the dissertation, largely as examples of how tending to this decolonizing, arts-based dissertation unsettled my understanding of and relationship with gardens and education.

Blogging is increasingly recognized as a powerful research method, particularly for arts-based researchers to disseminate and discuss their work (Leavy, 2009). The research blog that I kept on The Orchard Garden’s website (see Ostertag, n.d.) can be searched via the tag “Installation.” In total, I posted 11 times with stories, quotes, links, photos, videos, and emerging questions related to the project. I had originally hoped that the blog would also create an online forum for discussion around the themes of the project but only a few people posted comments to the blog. However, while I often felt like the physical installation series did not engage as many participants as I anticipated from within the Faculty of Education, the blog posts had more viewers than I expected (as of November 2014 posts were viewed between 10 and 170 times). While it is impossible to know who the viewers of the posts were or their responses, I did send out emails to relevant groups of people whenever I had made a blog posting (e.g., after a research event, I would email the instructor/students with a link to the blog posting), so it is likely that many of the viewers were research participants. In many ways, The Orchard Garden and the installation series *Threads sown, grown & given* are examples of dynamic hybridity and
becoming cyborg (Haraway, 2004) that challenge naturalized boundaries between nature and culture. Through blogging, for instance, the garden and the installation are not a natural garden in the conventional Eurocentric sense but assemblages that include the economic, social, and technological realms of the Internet, digital photography, and computers, as much as they are constituted by human and nonhuman participants.

During the course of the installation series, I conducted semi-structured interviews with my collaborators at The Orchard Garden (two focus group interviews with the team of graduate and undergraduate students from the Faculties of Education and Land and Food Systems), two semi-structured interviews with Jeannie Kerr, as well as semi-structured interviews with Sharon Kallis and Ron Benner. In addition to (and frequently also during) the more formal interviews with Jeannie that I audio-recorded, Jeannie and I also engaged in ongoing conversations throughout the research process that I noted in my research journal. These conversations were integral to our increasingly collaborative process of preparing for, thinking through, and reflecting on the research events with the installation series. Prior to engaging with her two classes at the installation and after each class visit, Jeannie and I discussed how things went, how we could have integrated other theoretical and practical elements into the class visit, and what excited and frustrated us about the research event. For the most part, however, our conversations would become a métissage of life experiences braided with broader theoretical and pedagogical ideas related to Indigenous education, decolonization, teacher education, and environmental and garden-based education more specifically. Our conversations also included stories of our experiences as doctoral students and the challenges of becoming scholars and teachers in the academy.

Since the research events with the installation were only one-day affairs with changing groups of student teachers, I developed short booklets for students to write their Field Notes as reflections and responses to open-ended questions. Ideally, the same student teachers ought to have participated in the entire research process of becoming together alongside *Threads sown, grown & given*. However, my marginal and highly informal position as education coordinator at

---

8 Student teachers who consented to participate in the research project included 19 students in August 2012, 30 students in November 2012, and 12 students from a group of garden-based education workshop participants in March 2013.
The Orchard Garden, as well as the incongruity between the growing seasons for my project (April 2012–March 2013) and the yearlong teacher education program (September–August), made it difficult to establish a long-term relationship with one group of student teachers. Student reflections in their Field Notes, therefore, became one of my main methods for accessing students’ thoughts in response to the installation series. As such, I do not have detailed, fine-grained personal narratives from student teachers, and without the time to build close relationships the student participants in the dissertation remained largely anonymous and unnamed. Thus, the ‘data’ from the student teachers risk entering into the dissertation as though they represent a homogenous, uncontextualized, and essentialized group (Loutzenheiser, 2007). However, since the methodological framework for this dissertation was a métissage of life writing that drew on autobiographical work yet simultaneously attempted to decentre the human in teaching and gardening, I recognize that my inability to name and account for each student teacher participant in the research is akin to my inability to name and account for the multitude of nonhuman actants who have shaped this study. Nonetheless, I recognize this as a limitation within the work, and signal it accordingly.

**Flax & fireweed: Plant participants**

Of all the nonhuman participants in the study, two do require naming. Through a myriad of relationships, memories, and material encounters, flax and fireweed entered this dissertation as compelling plant participants that co-constituted the direction of this arts-based research. Flax, *linum usitatissimum* (that most useful line), arrived at The Orchard Garden as a plant that I did not recognize and could not name but found enchanting and beautiful (see Figure 4). Flax grows tall, its long, feathery green stems sway like water in the wind, its pale blue flowers greet the midday sun then fall like blue rain, and after 100 days of planting it can be harvested and processed into linen thread. As one of the oldest known human fibre plants (spun flax fibres were found in a cave in the present-day Republic of Georgia and dated to 30,000 years ago), flax plants also recall national identities (it is the flower of Northern Ireland) and the material culture of flax fibres are threaded throughout the history of the line (Ingold, 2007). Unknowingly, I
planted this plant of lines into a rigid grid of desks for *Threads sown, grown & given.*

![Flax growing at The Orchard Garden, Threads grown, 2012](image)

Fireweed, *chamerion angustifolium,* arrived as a research participant during the winter months of the indoor ‘&’ installation, while I spun the flax into linen thread and imagined what the final gift-giving installation, *Threads given,* would entail. At some point, I intuitively knew that this would be the plant at the centre of the spring installation. Fireweed grows in the northern hemisphere in disturbed soils, especially after fires and deforestation but also after bombing through wars (Beresford-Kroeger, 2010, p. 119). As such, this plant is regenerative for soils and habitats, not simply a symbol for regeneration. It is also a weed plant that grows through underground rhizomes and by spreading tens of thousands of fine, white, fluffy seeds through the winds. Opening the door to the arrival of such a weedy plant into a food production garden may seem incongruous and out of place, yet fireweed’s stems are edible as a green ‘asparagus’ in the springtime, its leaves are medicinal and can be used in teas, its beautiful
fuchsia flowers draw honeybees and other pollinators, and the fibres in its stem and seeds can be spun for thread (see Figure 5). Faced with the impending destruction of the garden and struggling with the desire for reparation and regeneration to reconcile the difficult history of school gardening, I harvested fireweed rhizomes from the UBC Farm and planted them in a circle at The Orchard Garden as a gift.

![Fireweed blossoms and a honeybee at The Orchard Garden](image)

Figure 5 - Fireweed blossoms and a honeybee at The Orchard Garden, *Threads given*, 2013

These plant stories matter in ways that entangle arts-based research methodologies with posthumanist, material feminist theory, and beside particularly unsettling Indigenous knowledge practices, since flax and fireweed entered into the research and co-created hitherto unforeseeable conditions for gardening and teaching differently in relationship with land. These conditions are not anthropocentric in the ways in which conventional research centres the human. For instance, Springgay and Rotas (2014) wrote, “Counter to the assumption that posits humans at the center of creation, where matter is something to be formed and shaped by the artist, Guattari is calling
for a destruction of human-centered ideology” (pp. 2–3). However, I have chosen not to seek destruction nor going beyond human boundaries as the framework for this research. Rather, Springgay (2008) also wrote that a/r/tographical research “does not reproduce violence towards the other, but rather looks to a network of relations that are continuously being produced in and through the inquiry itself” (p. 162). Being a host to the otherness of flax and fireweed in *Threads sown, grown & given* has been my attempt to learn from and be hospitable toward nonhumans, not “as tools to think with, but in thinking with them to face our ethical obligations to them, for they are not merely tools for our use but real living beings” (Barad, 2011, p. 127). Thinking with flax and fireweed through arts-based research allowed me to experiment with becoming-plant, and how this reconfigured subjectivity was generative for thinking, teaching, researching, and gardening differently.

Ethically, however, researching with plants revealed a disconcerting blind spot within the increasingly rigorous requirements of UBC Behavioural Research Ethics Boards. While it is always challenging to communicate research methodologies to review boards that are working the edges of qualitative research paradigms (such as arts-based research), it was not what I said in my ethics review proposal that troubled me—it was what I left unsaid. Although the garden was my central research participant and collaborator, I was never required to provide any statements of ethical accountability toward the garden as a very material, lively assembly of human and nonhuman beings and matter. Planting a monoculture of flax, as I did for the first installation, would be considered by many agroecologists or Indigenous farmers as an example of unethical human interactions with land, yet my attachments to grids and my lack of practices to engage ethically with the land originally blinded me to the inherent contradictions between my gardening practices and posthumanist longings. Furthermore, most conventional scientific research has no qualms about large-scale interventions in ecosystems that frequently require monocultures or highly reduced ecosystems to generate research findings. However, since university ethics review boards are divided into human and animal research without a review board for plant-based research, I was not challenged to reconsider my landscape design approaches that continue to position the land as a passive, blank slate for research and experimentation. As social science and humanities research extends to the more-than-human, it
will become increasingly important that these ethical conversations continue, even if they are not within the rigid frames of formal ethics review processes.

**Guide to reading and walking down these garden paths**

As you read this dissertation, I would like you to imagine yourself going down a garden path, again and again. While the title of the site-specific installation art series, *Threads sown, grown & given*, follows a rather linear seasonal order, the dissertation introduces the installation series in reverse order. Through this (at times admittedly awkward) framework, I attempt to disrupt and play with the neat, linear format of the installation project, which retains ties with conventional narrative structures of introduction, conflict, and resolution. This particular structure is all too familiar in ecological discourses that frequently start in socio-ecological despair, chart extensive conflicts in our increasingly dystopic relations with the natural world, propose and enact solutions, and end brimming with hope, the saving graces of education, and utopic visions of green communalism. The disruption presented in this dissertation, however, is not intended to destroy the frames that were so generative in this arts-based research project.

Similar to the extreme simplicity of a haiku, framing the installation series and, later, the dissertation itself, with a title (*Threads sown, grown & given*) has allowed me to continuously return to concepts and materials that I have invited (often very intuitively) into and encountered during the research, the meanings of which were to unfold during the installation series and the writing process itself. Papastergiadis (2006) recognized this tension between art and writing about art:

> The place of art and the manner of writing have no symmetrical correspondence. There is no fixed hierarchy. No stable order. If writing just follows art it remains a shadow. If it proceeds, it can advance like a stereotype. Only when both reach for a common space can the parallel lines of different practices find resonance. (p. 9)

Of course, this common space and these parallel lines are not always neat. In this dissertation, knots are frequently more telling spaces than metaphoric parallel lines, although parallel lines—as you will see—are also always present in this work, as much as I long to move beyond their gripping grids. Although I structure both the installation series and the dissertation around the title, *Threads sown, grown & given*, even finalizing this title was a constant challenge, as I
struggled to give words to a process I could not foresee nor contain. As the project emerged, this
title changed slightly from that of my original proposal, *Threads sown & grown, sewn & given*,
to *Threads sown, grown, woven & given*, and finally to *Threads sown, grown & given* with its
tricky reliance on a symbol, the twisting, knotting ampersand, as a description of the conjunction
‘and’ for when I brought the materials *and* discourses of the project inside for the winter and
spun flax to linen with my drop spindle. Ultimately, you are welcome to read the dissertation in
any order if you are interested in going down different theoretical, methodological, material, and
discursive garden paths throughout the dissertation.

Following this introduction, the second chapter of the dissertation reviews the long and
oftentimes difficult history of school gardens. This history is not only difficult because school
gardens have nearly always failed to survive on physical school grounds but also because the
school gardens that have thrived have frequently espoused difficult and oppressive ideologies.
My critical historical review begins with Epicurus’ Garden School in ancient Athens (Harrison,
2008), where friends gathered, gardened, ate, and studied together outside of the political sphere
of the *polis*, setting in motion what I argue is the separation of nature and culture in educational
practices and spaces. Following Epicurus’ Garden School, I move to North American Indian
residential schools, where school farms and gardens were central to the assimilation of First
Nations children into western sedentary life, religion, gender roles, language, and food culture
(Miller, 1996; Milloy, 1999). Since my interest in school gardens is shaped by my personal
history as a German-Canadian settler, I also turn to the difficult history of school gardening
during the Nazi era in Germany. During the 1930s and into the wartime period, the German
ministry responsible for education required school gardens in all schools, as part of its strategy
for teaching its *Blut und Boden* (blood and soil) ideology (Jacob, 2002; Walder, 2002). School
gardens were places where children could be rooted to the soil, where race education and
eugenics could be taught, and where the soldiers and mothers of the nation would be raised.
While contemporary school gardening focuses largely on environmental education, nutrition, and
sustainable food production, I feel that it is ethically imperative to respond to this difficult past
and recognize where colonial, patriarchal, religious, and other oppressive ideologies may
continue to play out in the material and discursive performances of school gardening. The
remainder of the dissertation, through the installation series *Threads sown, grown & given*, is my
attempt at responding to the past and creating reparative and regenerative conditions for new pedagogical practices and relationships to emerge.

While the installation series began in April 2012 with Threads sown, the third chapter of this dissertation, “Threads Given: The Gift and the Garden,” begins with the final gift-giving phase of the installation series that began in the spring of 2013. Sami scholar, Rauna Kuokkanen’s (2007) work is the point of departure for my attempt at responding to the difficult history of school gardens, becoming a scholar within the colonial, capitalist, and patriarchal legacies of the academy, and experimenting with regenerative, gift-giving relationships with the land. Many of the stories in Chapter 3 circle around my relationship with beautiful, useful, unruly, and threatening fireweed, which entered the installation at the time when I planted it as a circular ring at the centre of the classroom frame. Spun around the edges of the installation frame were linen memory webs, beautiful spider webs created in collaboration with student teachers and Jeannie Kerr that contained the canvas bundles of personal and collective histories of our relationships with gardens. Through encounters with fireweed and making spider webs, “Threads Given” becomes a space for collaborative relationships to emerge that generate new ways for becoming teachers together and caring deeply about land, relations frequently incommensurable with academic constraints.

Chapter 4, “‘&’: Knotting Materials and Discourses Together,” follows the three weeks (November 13–30, 2012) of the indoor ‘&’ installation in the basement of the teacher education building, where I sat spinning flax to linen with a drop spindle. Like the twisting knot of the ampersand or a linen thread looping and knotting around itself, this chapter is organized around four difficult knots. The first draws heavily on material feminist theorizing to consider what comes together when we (educators, nonhumans) ‘become teachers together’ through an arts-based installation with student teachers. The second knot responds to the sense of being alone and struggling with a sense of failure that pervaded the entire research project but became unavoidable while I sat in the quiet basement spinning flax to linen for three weeks. This knot considers this solitude from various angles—the necessity for individual subjectivity within collectives, the limitations of collaboration in my arts-based research methodology, the failure of setting, and, turning to Thoreau’s (1995) Walden, the place of solitude in environmental education. The third knot explores Pitt and Britzman’s (2003) notion of difficult knowledge and
pedagogical performances of shame (Werry & O’Gorman, 2007) in the context of decolonizing education, and how Jeannie Kerr and I struggled with difficult knowledge in working with student teachers during the November 20th research event associated with the indoor installation. Finally, the fourth knot draws on critical animal studies and critical plant studies to consider the rather magical implications of becoming spider that emerged as I used my drop spindle to spin flax to linen thread in the basement of the teacher education building.

In Chapter 5, “Threads Grown: An Unruly Metaphor for Becoming Teachers Together,” I consider the first research event on August 2, 2012, when Jeannie Kerr’s class of student teachers participated in the installation at The Orchard Garden. The vivid, green flax plants growing in and—at this point in the season—sprawling beyond a rigid grid of 24 student desks captivated the student teachers. Metaphors linking students and plants, teachers and gardeners sprang to life, often with disconcerting and unsettling implications. The themes that I explore in this chapter all tie to the notion of growth, first in its hopeful form in terms of natality (Arendt, 1998) as a way of thinking through the challenging binary of freedom and constraint that the garden installation brought to the fore, but, second, through the cliché of the garden-as-teacher and the implications this has for raising students and growing gardens. Growing a dissertation is also a powerful way of conceiving research methodologies differently, particularly through arts-based research in environmental education. Finally, I consider and mourn the limits of growth, how growth is always accompanied by death, and how death and extinction have particular resonance as people continue transforming the earth’s biosphere in the Anthropocene.

Closely related to “Threads Grown” are “Threads Sown,” and in Chapter 6 I return to the first moments of the installation series when I sowed a grid of that most useful line (flax, linum usitatissimum) at The Orchard Garden. The chapter struggles to explain my relationship with land and soil, which is profoundly shaped by my history as a German-Canadian settler. I also consider how this relationship shapes discourses and practices in landscape design, and the design of Threads sown, grown & given in particular. Inasmuch as I desire to relate with land beyond grids and blank slates framed by nationalism, colonialism, possessive control, and territorialism, these frameworks continue to be present at every twist and turn down the garden path of the research installation. Finally, I question the very frame of “Threads Sown” from a
queer, feminist perspective, recognizing that ‘sowing seeds’ is difficult terrain, particularly in terms of agriculture, raising children, and conceiving arts-based research.

To conclude the dissertation, Chapter 7 gathers the threads that have been sown, grown, knotted, and given through this arts-based research. I explore how arts-based research in teacher education, and, in particularly, with gardens, has allowed me to attend to failure (Halberstam, 2011) in educational practices and spaces. This leads me to consider what I term a pedagogy of enclosures as a way to understand the heterogeneous relationships, ethical limitations, and boundaries that frame—yet do not determine (Barad, 2003)—pedagogical relationships and practices.
Chapter 2 – Down the garden path again? A critical history of school gardens

In this critical history of school gardening, I follow some difficult school garden paths, starting in ancient Greece with Epicurus’ Garden School, continuing with gardening and farming activities as central to the North American Indian residential school system, and finally delving into the difficulties of Blut und Boden (blood and soil) ideology during Nazi Germany. While much of this historical narrative is assembled from my research drawing largely on secondary sources and archival photographs, research that engages with personal and collective memories of school gardening during residential schooling and Nazi Germany would provide compelling and much more nuanced accounts of these complex times. Nevertheless, in going down these garden paths, I hope to share historical narratives that resonate with my personal autobiography and are animated with emotion, ambiguity, and responsibility rather than delegating historical events to the distant, inaccessible past. This chapter engages historical perspectives on school gardens primarily for two reasons: to bring needed complexity and criticality to our understanding of contemporary school gardens and, in bringing this oftentimes difficult past into our obscure relationship with the present, compel garden-based educators to explore and enact our responsibilities in response to social and ecological traumas and their ongoing impacts.

Currently, the growing interest in school gardens in Europe and North America emerges from a long history of experiments and revivals in school gardening initiatives. While numerous garden-based education researchers have explored various facets of this history (e.g.: Desmond, Grieshop & Subramaniam, 2002; Gaylie, 2011; Herrington, 2001; Kohlstedt, 2008; Subramaniam, 2002; Tomkins, 1986; Trelstad, 1997; Wake, 2008; Warsh, 2011; Waters, 2008; Williams & Brown, 2012), other garden stories still remain to be told and heard. In English-speaking North America and Europe, for instance, historical reviews tend to focus on the contributions of educational theorists such as Comenius (1592-1670), Rousseau (1712-1778),

---

9 Though I write here in a general sense, using ‘our’ and ‘us’ pronouns, I recognize that this historical response is tightly bound to my personal autobiography and situated knowledge (Pinar, 2011; Haraway, 2004) as a German-Canadian settler.
Pestalozzi (1746-1827), Fröbel (1782-1852)—who developed the first ‘Kindergarten’ or children’s garden—Dewey (1859-1952), Montessori (1870-1952), and Gandhi (1869-1948). In very general terms, these theorists were interested in education that connects children to nature, theory to practice, schooling to life, and school to home or community through experiential learning in gardens, both in rural and in urban settings. While this is the explicit curriculum of school gardening, going down the garden path again and re-interpreting these practices suggests other curricular conversations are also at play. In broad brushstrokes, school gardening in North America has also historically responded to and been embedded in: nationalistic efforts geared toward cultural assimilation, especially for new immigrants; Christian religious beliefs; wars (e.g., Victory Gardens and the United States School Garden Army); commitments to cultivating gender roles and a strong work ethos; a desire to re-vitalize rural economies and practices; opportunities for urban working class economic development; anti-intellectualism favouring hands-on labour rather than book learning; and changing practices and laws regarding child labour and child-adult relationships.

A closer reading of school gardening in ancient Greece, Nazi Germany, and North American residential schooling continues to elaborate on many of the themes listed above, particularly those of nationalism and colonialism. While the physical presence of school gardens has been transient and ephemeral, the shifting theoretical ‘grounds’ for these pedagogical experiments still requires excavation. Genocide, eugenics, racism, patriarchy, nationalism, colonialism, and human control over the natural world are not what we commonly associate with garden-based education, yet these paths are to be found if we are prepared to journey down them. The challenge remains for garden-based educators to reflect on and explore pedagogical practices that offer an ethical and situated response to this difficult historical knowledge.

**Epicurus’ Garden School**

In 306 BCE, Epicurus (341 BCE – 270 BCE) bought a small garden property inside the Athenian walls, on the same road to Plato’s academy, and founded the Garden School. According to Harrison (2008), “it was in this little garden that one of the greatest and most successful schools in history took root and spread out across the ancient world” (p. 72). Epicurus’ Garden School is known as the third of the permanent Greek schools after Plato’s
Academy, located in a grove sacred to the hero Academos situated outside the city walls, and Aristotle’s Lyceum. However, the Garden School, unlike the other two schools, was on private property and, therefore, according to Harrison (2008), enjoyed more academic freedom. It was also the first to allow women and slaves to become members. Furthermore, the Garden School is attributed to being the first attempt at bringing gardens within the boundaries of the Athenian city walls. As Elder Pliny (as cited in Giesecke, 2007) stated, “It was Epicurus, the master of undisturbed leisure, who first instituted this practice [of gardens within cities] in Athens; until his time it had not been customary for the countryside to be inhabited inside towns” (p. 89).

Giesecke (2007) attributes this “fourth-century ‘withdrawal’ of philosophy into the garden” to the “gradual deconstruction of the city wall as the physical and ideological safeguard of the Athenian polis” (p. 90). Moreover, Giesecke explains, Athens at this time was also extremely anthropocentric, to the point that humanity was privileged over Nature, and the city had become a violent dystopia necessitating the incursion of gardens into the city walls as places of sanctuary.

The relationship between the city, politics, and nature is central to the philosophical questions asked by the philosophers at all three ancient Greek schools. Epicurus, however, explicitly distanced his philosophy and his Garden School from politics. He depoliticized happiness and dissociated it from its traditional link to citizenship, contrary to the philosophical approaches of the times, which linked happiness with participation in the polis. Philosophy should serve the interests of life, not the city, espoused Epicurus. Unlike the garden at Plato’s Academy, which was only peripheral to the philosophy of the school, Epicurus’ garden was central to his pedagogy. As Harrison (2008) suggests, Epicurus’ Garden School was an actual kitchen garden tended by his disciples, who ate the fruits and vegetables they grew there. Yet it was not for the sake of fruits and vegetables alone that they assiduously cultivated the soil. Their gardening activity was also a form of education in the ways of nature: its cycles of growth and decay, its general equanimity, its balanced interplay of earth, water, air, and sunlight. Here, in the convergence of vital forces in the garden’s microcosm, the cosmos manifested its greater harmonies; here the human soul rediscovered its essential connection to matter; here living things showed how fruitfully they responded to a gardener’s solicitous care and supervision. Yet the most important pedagogical lesson that the Epicurean garden imparted to those who tended it was that life—in all its forms—is intrinsically mortal and that the human soul shares the fate of whatever grows and perishes on and in the earth. (p. 73-74)
By accepting this intrinsic mortality, Epicurus sought to cultivate a “care of the self” (Foucault, 1988) in which one no longer feared death as something unknowable due to an inability to understand the immortality of the soul. Rather,

Epicureanism called for meditation on mortality as the fate of both body and soul, which are born and die together…the garden played a crucial pedagogical role, for by revealing on a daily basis the interconnectedness of growth and decay, by revealing how death is the consummation and not merely the termination of life, it served to renaturalize human mortality. (Harrison, 2008, p. 75)

In cultivating gardens and human friendships, Epicureanism sought patience, generosity, conversation, love, non-aggression, and gratitude as central virtues to living a good and pleasurable life.

The ideas that were cultivated in Epicurus’ Garden School continue to challenge and excite scholars today, although the path of these ideas to contemporary conversations is a fascinating story in itself. Epicurus’ central interests in life, death, and pleasure were informed by his atomistic worldview, by which, similar to Democritus, he understood all things to be created by invisible, indivisible particles or the “seeds of things” (Greenblatt, 2011, p. 185) that swerve together in the void yet also fall apart and decay. Democritus’ and Epicurus’ ideas continued into Roman times through Lucretius’ poetic text *De rerum natura*. According to Cosgrove (2008),

Lucretius offered a dramatically different vision of nature from the more familiar Aristotelian description of a mutable elemental world of earth, air, fire, and water placed within a perfect and unchanging celestial realm. Lucretius’ cosmos consisted of atoms, ‘preserved indefinitely by their absolute solidity’. It is a world without origin or end, but of continuous change and reformation. And the governing force that powers this mutation is sexual love. (p. 79)

These powerful ideas, however, disappeared for nearly a thousand years and were only rediscovered in 1417 when a Renaissance humanist, the book hunter Poggio Bracciolini, discovered *De rerum natura* in an ancient monastery (Greenblatt, 2011). With great difficulty, risk, and opposition (particularly from the Catholic Church), the central ideas of Epicureanism—that we ought not to fear death, that we can live pleasurably since life and matter are made of randomly moving atoms that swerve, come together, and then return to the void—slowly entered Renaissance humanist thought. Epicureanism, through Lucretius, influenced the work of scholars from Galileo to Montaigne, Bacon, Darwin, and Bergson. Barad (2003), however, suggests that
Democritean (and Epicurean) atomism created the conditions for “representations on the one hand and ontologically separate entities awaiting representation on the other” (p. 907). Posthumanism, material feminisms, Indigneous knowledge practices, and arts-based methodologies challenge this binary, however, the influence of Epicureanism continues to shape popular and scholarly conversations.

Reading about Epicurus’ Garden School is a provocative experience for an advocate of garden-based education. On the one hand, I hear the lulling melody of a tune I know well and for which I cannot not long: a connection with nature, acceptance of the natural cycles of life and death, and the intertwining of human bodies with the matter of the world. On the other hand, it is precisely this rejection of politics in the first known (western) school garden that raises alarm bells and interrupts my dreams of compost love-ins. What is it about foundational western educational thought that believes that learning, politics, and the natural world can be separated? Either you participate in the polis or you frolic in the garden with Epicurus and his friends. Apparently, these garden paths have diverged for over two thousand years and, while the Garden School and Epicureanism are directly related to the horrors of residential schooling and Nazi Germany, this historic separation of nature and culture continues to reverberate.

Residential schools, school gardens, and school farms

Largely absent in contemporary narratives of school gardening history (see Kohlstedt, 2008, for an exception) is the experience of First Nations10 children in Canadian and US American residential school, where thousands of children learned first hand how school gardens and farms can be used to erode identities; disrupt connections to place, family and community; and lead to emotional, physical, and spiritual harm. In the 19th Century, residential schooling became an increasingly pervasive tool to assimilate First Nations peoples into Euro-Canadian and American society. As Miller (1996) indicates, political and economic shifts in North America accompanying the end of the War of 1812 and the merger of the fur trading Hudson’s Bay Company and North West Company in 1821 eliminated the need for the colonizers to benefit from First Nations peoples leading traditional lives. Furthermore, to allow for increased

10 Additional research is needed to understand the impact of an agricultural focus in residential schooling had for Métis and Inuit children.
European immigration and expand agriculture into forested regions, First Nations people were increasingly severed from their traditional lands and livelihoods. These dislocations, combined with the growing severity of famine resulting from decreasing wild animal populations on shrinking land-bases (particularly for Prairie Indians, see Carter, 1990), led to various government attempts at assimilating First Nations peoples through church, education, and farming. Since outright extermination was deemed not strategic, “Assimilation through evangelization, education, and agriculture would have to be the policy after 1830, because more coercive methods of achieving the ‘Euthanasia of savage communities’ were inimical, expensive, and politically dangerous” (Merivale, 1841, p. 511, as cited in Miller, 1996, p. 75). This three-pronged approach to “Kill the Indian, Save the Man” was encompassed within the residential school system.

The photograph from 1902, captioned ‘Brandon Indian School Garden Boys,’ is a haunting reminder of the importance of acquiring and controlling land through European agricultural practices and values in the assimilationist tactics of residential schooling (see Figure 6). Interpreting this photograph is similar to interpreting that of the now infamous before and after photographs of Thomas Moore:

Here he [Thomas Moore] is framed by the horizontal and vertical lines of wall and pedestal—the geometry of social and economic order; of place and class, and of private property the foundation of industriousness, the cardinal virtue of late-Victorian culture. But most telling of all, perhaps, is the potted plant. Elevated above him, it is the symbol of civilized life, of agriculture. Like Thomas, the plant is cultivated nature no longer wild. (Milloy, 1999, pp. 5-6)

However, gazing at and interpreting photographs of residential schooling risks positioning these images as sepia-stained symbols of a tragic past. By inserting these photographs, or ‘using’ them, in my dissertation, I risk instrumentalizing these images to tell a particular story of residential school history, without embedding the photographs in ethical relationships and responsibilities, particular times and places, nor engaging with the ways in which (and reasons for which) these photographs were produced, circulated, archived, and made available. While an old photograph may appear to belong to the distant past, the effects of residential schooling—and other colonial practices of taking away and assimilating First Nations children (Fournier & Grey, 1997)—have not been neatly framed and archived for hundreds of thousands of residential school survivors.
and generations of their children. Similarly, for settlers, viewing these photographs (and reading historical texts), therefore, can be shameful (Werry & O’Gorman, 2007) and affective reminders of the present-day implications of colonialism in education and in human/land relationships.

Figure 6 - Brandon Indian School, Garden boys harvesting carrots, 1902 (The United Church Archives, n.d.)

Note. From “Brandon Indian School, Garden boys harvesting carrots, 1902,” UCCA, 93.049P/1363bS, Reprinted with permission.

Barner, the photographer of the Brandon Indian School Garden Boys, carefully positioned the group of similarly aged boys (where are the girls and children’s families?) in clean clothes along the neat rows of the expansive carrot field. The school and presumably the Principal’s house loom in the distance, visible across the cleared, deforested, and ‘civilized’ landscape. The boys’ industriousness is visible in the bounty of their harvest. As Milloy (1999) writes, according to the Bagot Commission: “Increased knowledge would be useless, the commissioners reasoned, unless it were harnessed to industriousness, the well-spring of progress, which in turn flowed
from the individual ownership of land” (p. 16). Privatizing land ownership, rather than traditional communal and sacred relationships with the land, was integral to the colonial teachings of the residential school system, which sought to divide First Nations communities by offering successful residential school graduates their own parcels of land—on the condition of enfranchisement within colonial society and relinquishing their “Indian” status and affiliations (Milloy, 1999, pp. 16-21). John West, founder of the West River boarding school, encapsulated a prevailing sentiment that gardening could be a powerful tool in assimilating First Nations children:

> Necessity may compel the adult Indian to take up the spade and submit to manual labour, but a child brought up in the love of cultivating a garden will be naturally led to the culture of the field as a means of subsistence: and educated in the principle of Christianity, he will become stationary to partake of the advantages and privileges of civilization. It is through these means of instruction that a change will be gradually effected in the character of the North American Indian. (West, 1824, p. 150-151, as cited in Miller, 1996, pp. 69-70)

While gardening and farming were important considerations for assimilation, the goal of school economic and food self-sufficiency was both a necessity for basic survival and the outcome of profound racial inequalities in Canadian society due to the severe under-funding of residential schools by the Canadian government. According to Churchill (2004), “a U.S. investigating commission found in 1928, ‘much of the work of Indian children in boarding schools would…be prohibited in most states under child labour laws’” (p. 45), although exceptions were made on the grounds that the labour prepared children to become self-sufficient by learning a trade. Churchill (2004) asks a pertinent question, however: how many shirts does a girl need to make to become proficient? Clearly, industriousness and production—not education—were the central goals. For instance, in the United States at the Genoa Indian School, “300 acres were under cultivation by 1890, producing corn, oats, wheat, potatoes and sorghum, virtually all of it sold at market” (Churchill, 2004, p. 47).

Even within the vocational training they received at school, Miller (1996) describes how the Canadian Department of Indian Affairs in 1898 considered it a “waste of money” and an “injury” to educate children “above the possibilities of their station” (Miller, 1996, p. 158). As such, an androcentric system of education was developed wherein boys in particular were to “learn something of farming, gardening, care of stock and carpenter work” (Ferrier, 1906, p. 27, as cited in Miller, 1996, p. 158). Miller describes how girls were educated separately from boys,
with an emphasis on domestic skills. In addition to all the household chores, girls also learned to
garden: “Our own women have to do a great deal of garden work, and it is of the greatest
importance that the Indian girl should know how” (Ferrier, 1906, p. 26-27, as cited in Miller,
1996, p. 159). Farming also presented seasonal rhythms out of synch with the “mechanical
schedule of a school curriculum” (Miller, 1996, p. 258). Harvesting, for instance, required the
labour of the entire school and Miller is astounded “that school officials seemed only dimly
aware of the impact of such demands on child labour were likely to have on academic
performance” (p. 259). However, for many students, outdoor work was also considered one of
the better aspects of residential schooling,\(^{11}\) since it was less supervised and away from the
school building (Miller, 1996, p. 268). In “Une Main Criminelle,” Jack Funk recounts Alphonse
Little Poplar’s recollections of L’École St. Henri residential school. While moral and religious
training was the school’s first priority, learning how to work was its second:

The inability of the Indian people to work in the ways of the white man was seen as a
serious drawback that had to be overcome. The boys took care of the cattle, did the milking
each day, looked after the horses, sawed and split wood as needed, while the girls did
general housekeeping, knitting, and worked in the kitchen... There were fifteen acres of
garden produce and both boys and girls worked in the garden under the supervision of a
Sister. The children did not mind working in the garden because there they could speak
Cree without the nuns hearing them. (Funk, 1995, pp. 66-67)

Children could also surreptitiously access extra food while doing farm chores, although this was
largely insufficient to compensate for the serious malnutrition that was prevalent at residential
schools—and even exacerbated by the physical labour requirements of working on the school
farm.

Policies and practicing forcing parents to send their children to residential schools combined
with disallowing parents from visiting residential schools and only providing minimum vacation
time for children to return home were central mechanisms in ensuring that children would
comply with the assimilationist tactics of the missionary teachers and the federal government.
Carter (1990) also reveals how removing children from their families was tied to agricultural

\(^{11}\) Personal communication suggests that residential school survivors have vastly different relationships with
gardens after leaving residential school. While traumatic for some, gardening could also be therapeutic, a
connection to land, and a useful survival skill for others. More research is clearly needed in this area for a more
nuanced understanding of Indigenous gardening practices following residential schooling.
education and treaty negotiation processes which led to the settlement of First Nations onto increasingly smaller parcels of land and simultaneously a loss of sovereignty by becoming wards of the state. For instance, during the 1880s, Prairie Indian parents required passes to visit their children in industrial schools; however, these passes were only issued upon recommendation of the reserve farm instructors, and “were issued only to parents who promised not to interfere with their children or try to bring them home” (Carter, 1990, p. 152). In the Nuu-chah-nulth Tribal Council report (1996), their study describes how the children brought the teachings of residential school home and “became agents of change when they came home and made fun of their parents, made fun of old practices, didn’t want to be taking part of ceremonies and ritual because those things were wrong and were the work of the devil” (p. 138). Although many individuals and communities resisted—and continue to resist—these changes, intergenerational ruptures occurred throughout all aspects of First Nations culture, language, spirituality, cultural identity, and their connection to their land as a result of the Indian residential school system.

A central facet of First Nations culture that was disrupted through residential schooling was the relationship with food. At the level of food and eating, a culture’s land-based and cultural practices are conjoined; however, by separating children from their families, communities, and traditional food practices and forcing them to work on residential school farms, prepare and eat industrial food sitting in oppressive, regimented dining halls, and suffer chronic lack of nutritional food, these children often acquired profoundly unhealthy relationships with food, their bodies, and their culture. Miller (1996) describes instances where residential schools had inadequate food to feed the children, yet they refused to accept ‘country food’ hunted by the children’s parents to supplement the children’s diets. Based on testimonies by Nuu-chah-nulth residential school survivors, this experience of the hidden curriculum of food in residential schools is conveyed in compelling terms in the following testimony: “Nuu-chah-nulth people were mush. Mush and Brown Bean! Not something to be particularly proud of. Where in the past…relations would have boasted of having killed a whale, and invited another tribe” (Nuu-chah-nulth Tribal Council, 1996, p. 130). Mush and brown beans, day in and day out, eroded the cultural practices of generosity around food and the pride that came from preparing and sharing food grown, gathered or hunted on the land. The impacts of this are still being felt today in many First Nations communities.
Throughout this difficult history, First Nations communities made consistent attempts to ensure that their children received appropriate education as part of treaty negotiations. Parents wanted their children to learn to speak English and to learn to read and write so that they could help their communities and their elders to participate in what First Nations communities recognized was a rapidly changing society. Some First Nations communities also demanded to be taught agricultural skills in order to adapt to reserve life and the decline in wild animal populations; however, the failure of First Nations reserve agriculture can clearly be attributed to governmental reluctance to provide the support required to make these ventures a success (Carter, 1990). For instance, by actively preventing First Nations farmers from acquiring and learning to use the necessary agricultural technology and convincing reserves to surrender their lands, the government undermined treaty agreements and contributed in large part to the failure of agriculture on reserves (not to mention devastating famines). Until the 1990s, very few studies investigating the failure of reserve agriculture acknowledged the role of the Canadian government, attributing instead the failures on the Indians’ lazy character and culture (a colonial doctrine taught to children in residential schools, as Funk (1995) writes, see above). However, Sarah Carter’s (1990) book, *Lost Harvest*, offers a compelling historical analysis of the Prairie Indian Reserve farmers that effectively debunks the colonial myth that First Nations peoples were incapable of sustained, manual labour:

The standard explanation for the failure of agriculture on western Canadian reserves is that the Indians could not be convinced of the value or necessity of the enterprise. It was believed that the sustained labour required of them was alien to their culture and that the transformation of hunters into farmers was a process that historically took place over centuries. (Carter, 1990, p. ix)

For instance, many researchers attributed the failure of agriculture on reserves to the First Nation’s cultural perspective that agriculture violated a sacred relationship with earth by turning over the soil. Carter (1990) suggests that a revision of this view is necessary, since First Nations initially were much more determined than the government to see farming succeed. In the early decades of reserve life, “tribal councils were in favour of agriculture, resource development, and education but objected to new programs of the 1860s that aimed at assimilation and destruction of traditional culture” (Milloy, 1983, as cited in Carter, 1990, p. 14). Furthermore, most First Nations peoples in the Americas already practiced forms of agriculture, despite being unrecognized as such by the colonial invaders. Although largely unaccounted by Euro-
Canadians, “before European contact, agricultural products accounted for about 75 per cent of food consumed by North American Indians” (Carter, 1990, p. 35). Contemporary research indicates that the empty, pristine wilderness ‘discovered’ by the colonial invaders was in fact a highly anthropogenic landscape, even in the non-agricultural areas along the Pacific coast. For instance, Turner (2005) describes extensive gardening practices in the cultivation of entire forests through controlled burn practices and the creation and maintenance of berry gardens, clam gardens, and tidal gardens. These diverse—and possibly unrecognizable—gardening practices are important reminders that while gardens may be enclosures, these enclosures are not predetermined but rather fluid, heterogeneous frames in different places and times.

While treaty processes originally set out the importance of agricultural education, parents, however, were highly critical of residential schooling from the outset: “For the parents of residential school children, the excessive demand that the schools often made on their children’s labour was one of the most frequent and vociferous complaints lodged against the institutions” (Miller, 1996, p. 252). By 1910, First Nations communities were in favour of day schooling and protested against boarding and residential schools that were located far away from the children’s homes. They criticized the schools for “poor food, clothing, lack of hygiene among the children, and too much work on the school farm” (Miller, 1996, p. 142). Various high-level government officials were also aware of the poor living conditions for children in residential schools. For instance, Duncan Campbell Scott, Deputy Superintendent of the Department of Indian Affairs, Canada, observed in 1913 that “fifty percent of the children who passed through these schools did not live to benefit from the education they received therein” (Churchill, 2004, p. 34). Clearly, of the three highly unequal partners responsible for or legally in control over First Nations’ children’s education within settler colonialism—the government, churches, and First Nations communities and families—it was the latter, Miller (1996) insists, that consistently cared about the quality of children’s educational experience. The church and government were blindly pursuing their goals for assimilation.

Ultimately, Indigenous communities’ apparent lack of ownership or control over their lands was used to justify colonial usurpation under the guise of ‘improving’ land-use practices.

Ownership was secured by action rather than word, action that made use of the land in ways that English people could appreciate – planting and tilling, gardening, building a
house, bounding a space… A properly fenced garden was property…[T]hose that did not plant gardens or did not fence them or did not create landscapes that bore imprints familiar to the English did not possess the land and could not have property rights to it… (Harris, 2002, p. 48, as cited in M’Gonigle & Starke, 2006, p. 52)

Following this logic, therefore, meant that teaching ‘appropriate’ agricultural practices was a central facet of assimilation through residential schooling, and, when those attempts failed, the government and churches could easily return to prejudiced dogmas that First Nations peoples were inherently incapable of practicing agriculture. Reconceptualizing agriculture, not as a standard of civilization but as assemblages of material-semiotic relations and practices, shifts the register of who controls the land, what land-based practices are validated, and how these relationships can be taught and performed.

To conclude, what this difficult history suggests is that school gardens—and agricultural practices more generally—are not neutral spaces employing neutral pedagogies simply in the best interests of children, society or the environment. Instead, school gardens are located within complex ecological, social, political, religious, and economic networks at local and global scales. The Indian policy that originated in the 1830s sought to achieve the total assimilation of Indians into white society through missionaries, schools, and agriculture. However, the central role of gardening, agricultural and manual or domestic labour in the Canadian and U.S. residential school system also emerged alongside the destruction of the buffalo and other key ecosystems, increased immigration and the arrival of European farming practices, the decline of the fur trade, ongoing wars, crop failures, famine, progressivist pedagogies, and the ever-present, deeply rooted racism within imperialistic betterment discourses of Euro-Canadian and American colonizers.

The government’s policies for improving the genetics, environments and morals of Aboriginal peoples in the prairie west were applied through residential schools and the imposition of agricultural lifestyles. Residential schools sought to re-socialize Aboriginal children by instilling Euro-American concepts of gender, sexuality, appropriate behaviour in particular places, discipline and morality through curriculum and spatial arrangement. The government had decided that as Aboriginals were not going to ‘vanish’ conveniently, they had to be made more like the white settlers of the prairie west through manipulation of their genetics, their material goods, their health, their homes and their use of space. The key concepts of the pseudo-sciences of eugenics and eugenics, and the social purity movement, although not always directly employed, underpinned Indian Affairs policy. Residential schools and agricultural programs demonstrate the weight of influence of the betterment discourses on the DIA. (Bednasek & Godlewska, 2009, p. 458)
Considering that residential schooling has been equated with genocidal practices and policies that continue to reverberate today requires ethical responses from contemporary garden-based education researchers and proponents, as difficult as this may be. The other garden story I turn to now, that of school gardens in Germany and during Nazi Germany in particular, only makes the need for this response all the more necessary.

**German school gardens & Nazi ideology**

The ideological view during the Victorian era that farming was a key evolutionary stage to becoming civilized was a perspective held by many of the promoters of school gardens and farms for Canadian and U.S. residential schools. In Canada, “farmers were told that agriculture was the foundation of the wealth and prosperity of a nation… Farming was promoted as a noble and sacred occupation, a natural and healthy way of life that elevated ‘morally and emotionally, if not intellectually’” (Jones, 1982, p. 99, as cited in Carter, 1990, p. 20). In Germany around the same time period, “agrarian romanticists in the nineteenth century had stressed the ‘organic unity’ of people and the soil and had depicted peasants as the healthy ‘backbone’ of society” (Gerhard, 2005, p. 131). It is these themes of health, bodies, *Blut und Boden* (blood and soil) that get taken up during Nazi Germany with ominous tenacity, and are particularly evident in the betterment discourses of school garden pedagogy, theory, and design of the day.

The seeds for this genesis, however, were planted long before the 1930s and Hitler’s rise to power. Fernande Walder’s (2002) detailed historical review and Ulf Jacob’s (2002) discourse analysis of the history of school gardens in Germany trace the problematic connections and entanglements between school gardens, German national identity, historical context, ecology, and pedagogical innovations. Considering that the German school garden movement set much of the tone for European and North American school garden movements, unearthing and reflecting on this history is critical as school gardens continue to see a growing renaissance.

As Jacob (2002) and Walder (2002) illustrate, the metaphoric relationship between gardens and gardeners, children and teachers has long existed in western, particularly Germanic,

---

12 Paraphrasing and direct citations from German-language sources in this dissertation are all based on my own translations.
educational philosophy. In 1650, Comenius allegorically describes the work of the pedagogue as the art of the arborist who selects cuttings from trees to plant out as young trees in “God’s Garden” (as cited in Jacob, 2002, pp. 1-2). Around 1700, the Pietist August Hermann Francke started a school garden that, through botany and garden work, would bring children to know and love God’s creation. Inspired by Locke and Rousseau, early garden pedagogues sought experiential learning opportunities that respected the ‘natural,’ pure state of the child. The garden was the space where micro- and macrocosm could be explored, and the medium by which individuality and well-ordered sociality could be cultivated (Jacob, 2002, p. 4).

Following the restoration period after the Napoleonic war, the school garden movement led by religious, philanthropic, and romantic pedagogues stagnated and only continued by way of detours. In Switzerland, Johann Heinrich Pestalozzi promoted school gardens in the early 1800s. In 1840, Friedrich Fröbel (see Figure 1) legitimated his Kindergarten by drawing on the old romantic metaphor of teacher as gardener and child as plant, raised naturally in harmony with God and nature (Jacob, 2002, p. 4). By 1869, Austrian school policy included school gardens, which, as Jacob (2002) states, set a significant example for the rest of Europe to follow. However, in keeping with intentions driving early school garden initiatives, this interest in school gardens extended far beyond plants and flowers: the real harvest was to be cultivated citizens (Jacob, 2002, p. 1). Significantly, both Austria and Prussia had demonstration school gardens on display at the Vienna World Exhibition in 1873. It was not until the late 19th century that school gardening became, as Walder (2002) writes, “interesting, exciting, and confusing” because it was at “this point that school gardening had access to the public school system” (p. 13).

This more contemporary school garden movement alternated between affirmation and criticism of modern society, although it largely positioned itself in opposition to industrialization, urbanization, and promoted nation building. With reforms to science education in both Austria and Prussia, school gardens became closely linked to botany lessons; however, their role once again extended beyond pragmatic knowledge and included “conditioning students in morality and ethics” (Jacob, 2002, p. 5). In the 1870s, Erasmus Schwab, the most vociferous and well-known proponent of the modern German-language school garden movement, praised work or labour (Arbeit) as the pedagogical tool to teach proper thinking and action. The growing
emphasis on work led to the creation of the “Arbeitsschulbewegung” (vocational school movement). By the turn of the century, romantic undertones once again coloured this connection between gardens, work, and education by allusions to “Erdsegen” (earth blessings). This was combined with an increasing emphasis on physical health and hygiene, in which gardens and consuming vegetables were considered mildly therapeutic for the excessive sitting associated with studying, the ills of urbanization, poverty, alcoholism, and a lack of experiences in nature (Jacob, 2002, p. 5).

At the 1896 International Garden Design Exhibition in Dresden, a 1500m² model school garden was developed that highlighted the geology, soils, and native plants of the German homeland. The hope was that these model native plant gardens would cultivate a sense of “Heimatspflege” (care of homeland), and, as Fritz Hasselberg stated in 1912, “tie children with a thousand bands to the homeland they have learned to love” (as cited in Jacob, 2002, p. 6). According to Jacob (2002), this school garden movement was less a reaction against modern, industrial society and its elite classes than a missionary movement to protect the homeland from the internationalizing, proletariat masses of the city. Moreover, the movement both generated and reproduced the “socio-cultural imagination of ‘homeland’…before it could become a widespread, emotionally binding collective understanding with its associated effective history (Wirkungsgeschichte)” (p. 6). By combining physical labour to the love of one’s homeland, the transition to “Kriegs-Schülergärten” (war student gardens) was clearly in place.

During the First World War, teachers were called upon to prepare the bodies and minds of children in preparation for war. School garden proponents seized the moment to position gardens within these pedagogical efforts: “School gardens, the Cinderella of German pedagogy, now have the opportunity to step out of the shadows and do their part to destroy the plans of our enemies” (Förster, 1916, as cited in Jacob, 2002, p. 6). Much like in Canada and the United States, war, therefore, became a catalyst for developing school gardens, which became linked with patriotic virtue and were seen as an elixir for the rebirth of bodies and souls. Physical garden work also provided an anti-intellectual alternative to studious ‘head’ work (Kopfarbeit), and re-positioned physical labour as a source of pride. Paradise is not urban intellectual pleasure, Förster (as cited in Jacob, 2002) proclaimed in 1916, “paradise is gardens and chickens, food for the pigs, the smell of freshly turned soil…The German Volk, raised out of the fields, requires the
soil of the fields beneath its feet…The origins of our Volk is the family. And the family necessitates soil” (p. 7). With its battles against invasive weeds and efforts to cultivate strong German bodies and souls connected to the German soil, school garden ideology emerging from World War I set the ground for the significance school gardens would assume during Nazi Germany.

Following the economic, social, and ecological destruction of the war, school gardens in the Weimar Republic grew increasingly popular. Food shortages and global economic depression combined with growing sentiments of pastoral romanticism and anti-modernization also sustained the movement, with its emphasis on self-sufficiency, subsistence, and anti-urbanization. Labouring in the school garden was again perceived as an antidote to urban degeneracy, the end of the family, children’s lack of nature experiences, and a general cure-all for physical ailments. Improving health through school gardening particularly emphasized the benefits of air- and sunbathing (Hecker, 1940), all which led to increasing students’ physical strength and “hardening them off” (a gardening concept to acclimatize tender greenhouse plants to harsher, outdoor conditions) in preparation for adulthood (Jacob, 2002, p. 8).

A recurring debate during this period concerned garden design and whether students should work in individual plots and cultivate self-sufficiency and autonomy or, as Kerschensteiner (as cited in Jacob, 2002, p. 8) suggested in 1920, work in communal plots to cultivate a work community. Foreshadowing the Lebensraum (living space) rhetoric during the Third Reich, which legitimized Germany’s eastward territorial expansion to obtain additional land for the German people and food production, Jacob (2002) argues that school gardens also cultivated in the collective consciousness a desire for expansion, since these projects were also continuously hungry for additional land. School gardens were seen as vehicles to educate Germans to become—after a period of increasing alienation from the land—“settlers” again. In particular, garden proponents focused on the emerging youth culture, seeing gardens as the ideal, authentic location to remove children from the tarnished prejudices of older generations in order to learn natural laws and appropriate social mores surrounded by plants, animals, soil, water, light, and fresh air (Jacob, 2002, p. 9).
With Hitler’s rise to power, school gardens were of increasing significance in cultivating a collective, Völksich connection to Blut und Boden. In 1934, the Prussian Minister of Science, Education, and “Volksbildung” recommended that “every school have a school garden associated with it” (Jacob, 2002, p. 9). This was followed in 1937 by a Ministry document entitled “Guidelines for the installation and use of school gardens in elementary and middle schools” that also laid to rest debates around school garden design. The Ministry’s position was that “the school garden should be a communal garden; its purpose to teach collective thinking. Single
garden beds for individual students are to be rejected” (as cited in Jacob, 2002, p. 9). As such, school gardens and their existing ideological discourses became an ideal space for implementing the National Socialist mythology and ideology of Blut und Boden.

Richard Walter Darré, Germany’s Minister of Food and Agriculture, capitalized on widespread, romantic notions of blood and soil by adding two key elements that were not central to the traditional version prior to the Third Reich: He linked the notion of blood to race and eugenics, and he connected the word soil to the concept of German expansion, self-sufficiency, and living space (Gerhard, 2005). School garden proponents, such as Max Müller and Adolf Teuscher, clearly enunciated how gardens, with their emphasis on work and physical education, supported the political ideology of Nazi Germany and Germany’s “renewal.”

With the National Socialists’ massive, centralized reforms to education, school gardens became both the “battleground” for new economic policies and the location for the necessary re-ruralization of the entire society (Jacob, 2002, p. 10). Garden-education’s central priority, therefore, was the physical and moral education of soldiers and mothers; however, race education (Rassenkunde) was also an important duty of the school garden. In terms of this Rassenkunde, plants were not neutral objects; their social construction as “beneficial” or “pest plants,” lent themselves to, as Jacob (2002) argues, a war against weeds and a rehearsal of a mentality of biological extermination.13 Hitler’s ideas expressed in Mein Kampf were readily taken up in garden education literature, including in Höfner’s (1937) book Der Schulgarden in der Unterrichtspraxis (The school garden in teaching practice). While Portheine (1938, see Figure 7) did not personally support the Nazi Party (Plasger, 2007), the links with Blut und Boden ideology are nevertheless apparent throughout his German school gardening teaching guide. For instance, in one section, Portheine (1938) offers instructions on how to design a 4-bed garden to teach Mendellian genetics, in which patriarchal and racist language of racial purity abounds, since dominant ‘normal’ genes are linked to the father plant and recessive ‘abnormal’ genes with the mother.

13 While this is strong language, weaker versions continues to circulate in contemporary North American school garden rhetoric, with little reflection as to the impact that words such as connecting to the soil, native plants, and invasive species have when the dominant cultural, economic, and ethnic classes—particularly women—continue to promote school gardening in highly diverse communities of First Nations children and multiple generations of settlers from around the world.
Pine (2010) recognizes that school gardens were a useful tool for National Socialist pedagogy and indoctrination. According to Pine, “one of the most dangerous strengths of Nazism was its ability to exploit of [sic] apparently innocuous activities and popular sentiments for its sinister aims” (p. 20). In the apparently apolitical space of the school garden, a microcosm was created for the *Volk* or ‘national community’ through innocuous activities such as children working together to build community, learning physical skills, and gaining practical agricultural knowledge. More sinister, however, was how, through experiments on soil, fertilization, and genetics…links were made between particular plants and the ‘German nation’, the importance for the ‘national community’ of fruit and vegetable growing was shown, and hereditary transmission as demonstrated in the school garden was used to emphasize racial and eugenic issues. (Pine, 2010, p. 44)

Extending beyond the specific realm of school gardens, the National Socialist emphasis on exposing children to the purity of nature and the moral teachings of agriculture contributed to the creation of children and youth camps and volunteer labour activities on farms.

Nazi education centred on youth culture and socializing children by removing them from the influence of teachers and the family. In 1936, the Hitler Youth Law granted the Hitler Youth “equal status to the home and the school in educating German children” (Pine, 2010, p. 100). The Hitler Youth held massive power over children’s education during Nazi Germany, since all other youth groups were dissolved by Hitler’s government and massive propaganda campaigns encouraged all school children to join. By 1939, it became law that all youth ages 10-19 participate in either the *Hitler Jugend* (HJ, Hitler Youth) or *Bund Deutscher Mädel* (BDM, League of German Girls). Hitler Youth actively fought against the authority of church, school, and their parents, and were encouraged to spy against their families.¹⁴ Physical fitness, gender-specific roles and training, and land service were central aspects of the youth movements. A Hitler Youth document from 1940 stated: “Land service is the political task of National Socialism. Its purpose it to bring back boys and girls from the cities to the land, to create new recruits for the agricultural occupations [i.e., Germany’s *Lebensraum* eastern occupations in Poland] and thus secure their continuous existence” (Pine, 2010, p. 103). During the war, nine

---

¹⁴ This rejection of parents and teachers is not so clear-cut, however. In Herbst’s (as cited in Pine, 2010) memoir, he writes, “Did we leaders of boys leave our parents and teachers, or did our parents and teachers leave us? We could not have said” (p. 102).
million BDM girls took part in volunteer agricultural labour, and thousands of boys and girls were sent to the newly occupied territories as part of the efforts to prepare the expanded Lebensraum for German agriculturalists.\textsuperscript{15}

Furthermore, young German children were removed from the cities to the countryside in a program called the Kinderlandverschickung (KLV), in order to protect them from allied bombing and instil a connection between German identity and the beauty of the German countryside. These camps, however, were also an ideal space for socializing children in Nazi ideology, which was an aspect of the camps that concerned many parents who only reluctantly agreed to send their children away (Pine, 2010). Like the assimilationist tactics employed by residential schooling, the Nazi approach to education was to remove children from the influence of their families and connect them to particular soil-based ideologies. At these rural camps, agricultural work and pre-military training through drills, songs, and marches were part of the KLV program.

Following World War II, Förster, a former Nazi-member and well-respected within East Germany, strategically drew on historical school garden ideologies to re-position the movement. Seeing the chaos of the post-war moment as an opportunity, Förster suggested, once again, that relationships with plants and animals through school gardening was healing and that healthy relationships and families emerged out of the green garden. Repeating earlier discourses, Förster suggested that girls would learn to be housewives and mothers, and children would learn to love the homeland through working the German soil. Drawing lessons from the disaster of the communal garden plot, West Germany shifted toward individual garden beds that celebrated petty-bourgeois ideals of ownership, individualism, competition, order, cleanliness, trading, and gift-giving (Jacob, 2002, p. 11). In East Germany, “Mitschurin-Garten” school gardens were modeled after the socialist directions coming from the Soviet Union. By 1955-1956, the ministry recommended that all schools install school gardens, based on ideals of collective work and the dialectic of individual/social transformation. Not surprisingly, these gardens were designed and tended communally.

\textsuperscript{15} Like many German youth, my grandparents participated in these youth programs, and my great-uncle was sent to a KLV. I have a photograph of my grandfather sitting in a dark pine forest with his HJ group, and my grandmother occasionally talked about her time working on a farm during the war. These extensive land-based activities are a source of ambiguous memories for my grandparents, who enjoyed the songs, camaraderie, and freedom but recognize the oppressive mechanisms that led to the formation of these youth groups.
Similar to trends in the UK, the United States, and Canada, by the 1970s the school garden movement in Germany had become characterized by the environmental movement’s apocalyptic fears and romantic longings to return to the earth. Jacob (2002) indicates how, once again, the school garden movement was linked with expectations that experience, environment, and self-directed activities would reach the whole person: head, hands, and heart (a Pestalozziism) through work in individual garden beds and collective labour: “The school garden opened up a free space for unalienated experiences with self and world” (Jacob, 2002, p. 12). While Jacob (2002) clearly presents a critical and sceptical portrayal of historical school gardens in Germany, he leaves the garden gate slightly ajar, offering a glimmer of opportunity for contemporary school gardens if they become open to the dissonances of the present and uncertainties of the future. Otherwise, Jacob (2002) intones, school gardens will continue to go down the same garden path again and again, in which:

School gardens socialize and acculturate children into mainstream or alternative social ideologies, acting as both mirror of the socio-cultural context and medium of its realization. Thus, the gardens are pedagogical instruments relying on holistic ‘Menschenbildung’ (education/raising of humans) to create ideal humans through ideal socialization, according to the ideology of the day. (p. 14)

School gardens that critique, question, and reflect profound uncertainty—instead of instrumentalism and extreme social engineering—are uncommon in the histories I have explored to date. Perhaps it is time we explore other pedagogies of landscape, not to silence this past but to learn from it and change alongside these difficult histories.

**School gardening: Impossible possibilities?**

Drawing parallels between residential schools and Nazi Germany through the lens of the school gardening movement is ugly work, which could potentially be construed as an ultra-conservative polemical device to undermine genuine efforts to create positive pedagogical landscapes on schoolyards. However, the centrality of moralizing about agriculture’s educational, spiritual, and physical benefits in Epicurus’ Garden School and within both the residential school system and in Nazi Germany highlights the need for careful and loving critiques of a cherished educational idea, ideal, and—once again—practice. While churches and governments in Canada and the United States used school gardens in residential schools as a
colonial tool to assimilate First Nations children as bottom-rung citizens into white society, the Nazi regime used school gardening and agricultural education more broadly to indoctrinate white, German children. And yet, both ascribed to an uncritical, apolitical betterment ideology and colonial efforts to control and acquire land. Like Epicurus’ desire to improve human lives by connecting them to natural cycles of life and death, Bassin (2005) explains how German blood and soil ideology was politically manipulated to describe the “Naturbedingheit” (nature dependency) of the Volk: “Like all natural organisms, the Volk derived its most vital impulses and sustaining energies from these ecological connections, and it was only by maintaining them in a healthy state that the health of the nation could be insured” (Bassin, 2005, p. 206).

Unravelling how both residential schools and the Nazi regime positioned parents and intergenerational relationships as antagonistic to processes of indoctrination and assimilation is key in understanding these difficult pedagogical landscapes.

Ultimately, repairing and reconciling school gardening history in the context of contemporary school gardening practices and research will require dramatic instances of unsettling or decolonizing what is often an over-familiarity with the notions or dreams or experiences of both gardening and schooling. Central questions in this process of ‘going down the garden path again’ are: What is a school garden and how are school gardening pedagogies and curricula received historically and in particular places? What are the contemporary implications of school garden history? And, finally, how can difficult histories be repaired and reconciled? These questions may open up spaces for difficult knowledge and unsettling garden-based educational practices that twist territoriality and temporality into generative and complicated pedagogical knots. Going down these complicated garden paths, again and again, may cultivate material and discursive modes of growing critical historical and place consciousness—precisely the kinds of decolonizing and reconciliatory curricula that school gardening can potentially perform. Simon (2006) identifies various options for how historical wrongdoings can be taken into account: memorialization, historical study, retribution, apology, reparation, and the sense of ‘never again.’ To this list he adds a different but complementary form of “non-indifference:”

Our concern is with remembrance as simultaneously an ethical and a pedagogical practice…In other words, how might remembrance be understood as a praxis creating the possibilities of new histories and altered subjectivities? Our interest then is new memorial
spaces, temporal and ontological boundary spaces that advance, encourage, and enable practices of critical learning through which one might explore the fundamental terms of relations with an absent presence that – through the trace of testament – arrives asking, demanding something of us. (pp. 186-187, my emphasis)

Simon (2006) recognizes that the traces of the past expect a response, “But how should this be done? Who is required to do it? And for how long must this remain a task?” (pp. 184-185). Simon suggests that this task is inherently political, pedagogical, and public. It can also be very personal and local when the effect of remembrance touches us deeply. In this case, to be touched is not only an affective state of shock, anger, or sadness but “a movement toward the other in which one draws closer…wherein the cognitive terms on which one makes connection with others is shaken, put up for revision” (p. 189). Through arts-based research and the site-specific installation series *Threads sown, grown & given*, remembering, inhabiting, and teaching these histories becomes an emotional, intellectual, physical, personal, and public pedagogy.
Chapter 3 – Threads given: The gift and the garden

All this cynical talk of development: giant, 18-storey concrete blocks, 1000 beds, 10 million in revenues, and the gift of a university education for international students to pursue western post-secondary education. It hardens me. In the words of one of the developers, by July 2014, ‘all hell will break loose’ and The Orchard Garden will become one enormous construction site. These are the conversations that haunt me, and I spread their poison to everyone with whom I talk. The word ‘Gift,’ in German, means poison. But then, this afternoon, I entered the circle of fireweed and spread the softest, warmest, most fragrant bed of golden flax tow in between the woven flax straw mats. A bed. A womb. A gift. (Research Journal, June 14, 2013)

Figure 8 - Gift of flax tow and a circle of fireweed, The Orchard Garden, Threads given, 2013
For indigenous people, the world’s stability, its social order, is established and maintained through giving gifts and recognizing the gifts of others, including the land. The gift constitutes a specific logic that not only is different from that of the increasingly consumerist and careerist academy but also represents a radical critique of the logic of exchange. The gift logic … is grounded in an understanding of the world that is rooted in intricate relationships that extend to everyone and everything. Because of these relationships, this logic emphasizes reciprocation with and responsibility toward all others. (Kuokkanen, 2007, p. 7)

The installation series, *Threads sown, grown & given*, concluded with an exploration of gift giving (see Figures 8 and 9). Gift giving emerged as an important theme for this work in July 2011 as I was reading Sami scholar Rauna Kuokkanen’s (2007) book *Reshaping the University: Responsibility, Indigenous Epistemes, and the Logic of the Gift*. Kuokkanen suggests that the academy must confront its own colonial, epistemic ignorance in its incapacity or unwillingness to come to terms with Indigenous knowledge, particularly as this pertains to the gift paradigm. Kuokkanen’s message struck a nerve, which I describe in a narrative later in this chapter, and led
to the following questions: What does gift giving mean for me, a nonindigenous doctoral student, and for the academy in general? What is the relationship between gift giving, teaching, and education? What does it mean to give gifts to the land? And, finally, provoked by the critical, historical garden-based education discourses I confronted in the initial garden installation: What is the relationship between the gift and reconciliation as an ethical response to difficult knowledge? These are not easy questions, in part because it turns out that gift giving is a highly complex concept and practice.

Giving gifts to people does not come naturally to me, a rather minimalist and self-sufficient Anglo-Saxon who gives laughter, smiles, words, and time to projects and people but is uncomfortable with material gift giving. And yet, I framed a research project for myself that was to end with an exploration of the notion and material practices of giving gifts to the land, a strange, attractive, and impossibly hopeful conclusion to a project that started out critiquing historical connections between gardens and education in the space of a contemporary university campus teaching and learning garden. The im/possibility of giving gifts to the land is further problematic in the sense that, like much environmental education, it draws heavily on the gifts of Indigenous teachings. As Kuokkanen (2007) wrote,

While environmental education is increasingly drawing from indigenous land-based philosophies and practices, learning to learn from indigenous epistemes is not simply about learning a land ethic or adapting indigenous peoples’ conceptions of the world in order to develop an environmental philosophy. (Kuokkanen, 2007, p. 122)

Kuokkanen criticized environmental education for ignoring Indigenous worldviews and philosophies, depicting the views of mostly white male scholarship, lacking a historical understanding of colonialism by privileging the present and hearkening to a conflict-free past, and appropriating Indigenous discourses without joining the struggle for Indigenous survival (see the Cherokee activist and scholar Andrea Smith, as cited in Kuokkanen, 2007, p. 125). Finally, Kuokkanen argued, “The biggest problem with using Indigenous peoples as models for reconstructing modern metanarratives, however, is that such projects fail to recognize the reciprocity that is so much a part of indigenous philosophies” (p. 125). Without this recognition, the settler intellectual “hybridizes decolonial thought with Western critical traditions (metaphorizing decolonization), [and] emerges superior to both Native intellectuals and continental theorists simultaneously” (Tuck & Yang, 2012, p. 16). Certainly, in attempting to
‘become teachers together’ in relationship with the land through gift giving treads on profoundly difficult territory, and no amount of humility or claims to a lack of knowledge (see Kuokkanen on “not knowing” as colonial ignorance, p. 114) can justify the possibilities for mis/appropriations in this work.

In response to Kuokkanen’s (2007) challenges, I approached gift giving through various practices; however, I humbly acknowledge that my failures—particularly in reciprocating and building relationships with Indigenous communities, scholars, and joining in solidarity in Indigenous struggles—exceed my successes, and, as such, much of what follows risks mis/appropriating Indigenous teachings.16 Perhaps the gift of my shame, in the particular sense that Werry and O’Gorman (2007) explore as a way of experiencing relationships, can help toward relations of solidarity, I do not know. Rather than adapting or adopting specific and situated Indigenous teachings of gift-giving practices in Threads given, I attempted to follow affective, intuitive, and idiosyncratic responses that emerged alongside the project and were counter to the prevailing academic culture of rationality and control. As such, in the final outdoor installation, gift giving took a number of forms in this research and installation series; however, future research (emerging from relationships of respect and reciprocity) would be required to understand and respond to specific historical, spiritual, and situated Indigenous gift-giving practices. In this research, I only began this work on a very superficial level. For instance, when I visited UBC’s Museum of Anthropology, I learned in the section on Coast Salish spindle whorls and weaving that gift giving is deeply connected to art, sustaining community relations, and spirituality in traditional and contemporary Coast Salish culture. On an interpretive panel adjacent to a sweater gifted to the Museum by Musqueam artist Christine Charles, I read how spinning and weaving are considered spiritual gifts, and that a novice weaver gives away or destroys his or her first work to show respect for these gifts. Considering that I too would give away my—and the student teachers’—first attempts at spinning flax to linen through the creation

16 During the course of this research, I participated in numerous seminars, presentations, and events at the UBC First Nations Longhouse to learn from Indigenous scholars and communities. I attended the Truth & Reconciliation Commission’s sessions in Vancouver and walked in the pouring rain with 10,000 others in the Walk for Reconciliation. I joined in a Round Dance during Idle No More. I marched with environmentalists and First Nations communities against the Enbridge Pipeline. I visited Musqueam on National Aboriginal Day. For many of these events, I brought along my young son. While the list goes on, participating in brief encounters does not constitute engaging in decolonizing solidarity.
of ephemeral linen memory webs at the garden, I wonder how much more I could have learned by engaging with Musqueam knowledge holders, artists, and community members directly\textsuperscript{17} rather than through a Museum installation that perpetuates colonial relations to Indigenous knowledge and spirituality. Nevertheless, the threads of these teachings are spun into this research (albeit ambiguously) and may still lead into future elaborations, collaborations, and decolonizing pedagogies and relationships through the practices of gift giving.

In March 2013, student teachers, Jeannie Kerr, our student gardening and education team at The Orchard Garden, and I spun beautiful linen spider webs in the garden and knotted into these webs the historical images on the canvas windows juxtaposed with our personal memories of gardens. \textsuperscript{18}Creating things of beauty from the materials of the garden and the difficult historical discourses of school gardening was an attempt at recognizing my personal and our collective responsibility as garden-based educators touched by the difficult histories and ongoing ecojustice issues in our field. The beautiful memory webs were also a way of returning the gifts of the garden (the linen thread spun from the flax from \textit{Threads sown/Threads grown}) and setting them in motion in ways we cannot predict. A few weeks after spinning the linen memory webs, another garden team member and I harvested fireweed rhizomes from the UBC Farm. After a false start in attempting to plant the fireweed rhizome in the installation site (I found it hard to decide where and in which shape to plant the rhizomes), I finally planted a large circular ring in the centre of the classroom frame. The symbol of the circle juxtaposed with the rigid grid of the flax classroom from the previous summer, yet retained some of the formal, geometric simplicity of the initial design. The circle also suggested a whole new realm of metaphors to explore in terms of ‘coming together,’ a central theme of this project. In terms of teaching, planting a circle of fireweed rhizomes (which I hoped would spread in various directions in the coming years) suggests that teaching is about creating conditions or particular frames from which learning may occur. The circle, I would later come to realize, is in fact \textit{the} symbol of the gift; however, neither the gift nor the circle are to be taken lightly. Activism also entered the project as a form of gift giving.

\textsuperscript{17} For instance, while Musqueam artist Debra Sparrow participated in the research as a guest with the student teachers on November 20, 2012, a closer and more reciprocative relationship with her and the Musqueam community would have dramatically altered the discourses and practices of this research, particularly around local practices of gift giving.

\textsuperscript{18} See my April 3, 2013 blog post (Ostertag, 2013b)
giving, when The Orchard Garden was threatened with destruction to build the Orchard Commons, and, finally, this dissertation itself continues to circulate as a gift.

In this chapter, I unwind and knot anew the implications of gift giving in relation to land, education, and history by picking up dropped threads at the site-specific installation *Threads given*, in the literature on gift giving, in personal narratives and stories from the research, and in the implications of the gift for academic research, particularly arts-based research. Throughout this, I return to the overarching question that shapes this research, namely, “What does it mean to become teachers together?” The structure of this section draws largely from a series of situations associated with *Threads given* and academic literature (Derrida, 1992; Hyde, 1983; Kuokkanen, 2007) pertaining to the gift. The particularly salient threads that will explore in greater depth are (1) reading about the gift while Olivier goes to daycare; (2) the circle and its discontents; (3) coming together through gifts to the land; (4) the threat of the gift; and (5) research, reconciliation, regeneration, and the gift.

Finally, however, there are a multitude of additional situations that have resonated with the concept and practice of gift giving throughout this research. In addition to giving gifts through the research process, I also sensed that I received numerous significant gifts. Recognizing that gift giving cultivates relationships, these gifts include the time, connections, and learning that emerged through the arrivals of Jeannie, flax, fireweed, spindles, dreams, and the garden itself throughout the research project. In rather inexplicable ways, these material-discursive assemblages arrived as gifts within this project, and while the following pages are elaborations on more difficult instances of gift giving, I would like to acknowledge their significant presence with as much humility and honesty as possible. Recognizing flax and fireweed, for example, as gifts is also an attempt at faith, which is a rather incongruous concept in an academic culture based on reason and verifiability; however, faith is central to understanding the gift, as we shall see. In many respects, these gifts have propelled the work in this dissertation, driving the project forward and compelling me—in my own journey of becoming scholar—to write provocatively, to write evocatively, and to tell good stories as gifts I now give to you, the reader.
Reading about the gift while Olivier goes to daycare

The following narrative returns to 2011, at least half a year before I began developing ideas for Threads sown, grown & given, and nearly two years before I planted the gift-giving installation at The Orchard Garden. However, this narrative matters for this métissage (Hasebe-Ludt, Chambers & Leggo, 2009) because it acts as a prologue to Threads given, and marks traces of thought, feeling, and material relationships that become threaded throughout the dissertation. In 2011, I was in the second year of my doctoral program and reading widely to prepare for my comprehensive exams (‘comps’ as doctoral candidates call them). While I no longer recall how I came upon Kuokkanen’s (2007) book on the gift, reading this book was a compelling experience. In many ways, the material and discursive context of my life at that time forcefully shaped my receptivity to the text, which, under any other circumstances, may have left an entirely different impression. Suddenly, gift giving was a concept that resonated throughout my personal life as a young, first-time mother, and Kuokkanen’s recognition of the incommensurabilities inherent in bringing the logic of the gift within the culture of the university spoke directly to my experiences as a doctoral student. As I continued to read, however, I became increasingly disconcerted by the impossibilities of the gift in the context of mothering and becoming an academic.

Inasmuch as becoming an academic is about membership in a community of scholars and my theoretical and methodological inclinations tend to human and more-than-human entanglements, at the end of the day, becoming an academic still requires carving out a space of solitude to make the practices of study—particularly reading—possible. While in other parts of this dissertation I explore instances of feeling alone through the process of this research or the implications of solidarity and togetherness, the situation I describe below focuses on an experience of solitary study, made possible by my 22-month-old child entering full-day childcare. With my son in daycare I had the space and time to study the gift. It was this fruitful yet difficult juxtaposition of intellectual work and emotional work that ultimately led to the inclusion of gift giving in the installation series.

Olivier is having his third nap at daycare, and I am struggling with this transition much more than with the first three weeks of ‘gradual entry’ where Olivier spent his mornings at daycare and napped here, at home. For 22 months, I have breastfed Olivier for nearly every one of his naps and at bedtime. It is not a burden, and, reading Rauna Kuokkonen’s book
on the logic of the gift, I understand precisely how much this has been a gift I have given freely to Olivier.\textsuperscript{19} We have been together every day, every night, my body nurturing and feeding his body, and—since the moment of his birth—my life intertwined with his. Now he sleeps alone at daycare, and I find myself crying or on the verge of tears. This transition feels wrong, even though Olivier doesn’t cry when he goes to daycare, has learned to fall asleep on his own within two short days, learns songs and independence and confidence, and doesn’t want to come home when I pick him up (as early as possible, overly-attached mother that I am). Suddenly, daycare enters into our reciprocal, caring relationship. Daycare, as much as the teachers there practice \textit{care}, is based on exchange, on monetary value, on commodification.

My recent interest in the gift arose out of latent mulling over mothering, and then came to a spark of recognition when a friend described to me the elaborate feasts his Guatemalan family prepares for any celebration—birthdays, baptisms, holidays, etc. My life in my lovely but lonely at times nuclear family arrangement, located thousands of kilometres from the nearest relative, would never allow for such lavish celebrations. I could imagine the mountains of food, the hours of festivities late into the night, children running about, dancing…and then I thought of our periodic potlucks (with nothing whatsoever in common with the coastal potlatches): tired parents, small offerings of food (frequently re-imagined leftovers), little to no alcohol, and early bedtimes. It’s all we can muster, with jobs (in our particular circle of friends, this is replaced with eternal schooling), bills, debts, and lack of social support systems clawing into our precious circle of mother, father, child(ren). Yet we are of the privileged, and I suspect that our social support network is stronger than many others in our student family housing neighbourhood. University-educated, mostly white, heterosexual: we lack nothing yet we live in a paradigm of perpetual scarcity.\textsuperscript{20}

Increasingly, I see how this exchange paradigm exploits the gift paradigm of women, Indigenous peoples, the Third World, and the natural world.\textsuperscript{21} These are two incommensurabilities, although as much as the capitalist exchange system attempts to consume gift giving, it is fundamentally dependent on its existence or, as Vaughan suggests, the exchange economy is “an artificial parasite which derives its sustenance from the gift economy” (Vaughan, 1997 as cited in Kuokkanen, 2007, p. 31).

I feel incapable of challenging this system. At the basic level of our childcare arrangements, comps, my PhD and The Orchard Garden require my time. Every day, I explain to Olivier that I must go to ‘work;’ creating artificial barriers between me and him,

\textsuperscript{19} “we are all born into the the gift economy of mothering - nurturing mothers practice unilateral giving to their children” (Kuokkanen, 2007, p. 31). Kuokkanen goes on to suggest that mothering is the basis of humanity but that “we must generalize the values of nurturing and care so that they apply to both men and women (rather than use the gift paradigm to justify the exploitation of women and their domestic labour)” (p. 31)

\textsuperscript{20} “Markets are founded on the principle of scarcity (most obviously, to maintain high prices); in contrast, a gift economy is founded on abundance” (Kuokkanen, 2007, p. 30)

\textsuperscript{21} “Although naturalized as the self-evident norm, exchange is built on the exploitation of cultural traditions and knowledge, of ‘free’ or unilateral gifts of the land, and of cheap (even free) labour, especially in the Third World” (Kuokkanen, 2007, p. 30)
the adult & the child, work & play. I want him with me; I don’t want to work so that I can pay the daycare bills.

So I have an idea: Part of my ethnography in the garden will include Olivier. He will lead me out (educare…) and I will liberate him from our exchange economy for one half day, to spend it with me in the garden. Perhaps he will find it boring or he’ll step on plants or he’ll distract student teachers. My research notes on those days will be messy, incomplete. But it will be my little act of resistance. He can become a co-researcher, co-performer in our garden. I thank Olivier and the garden for these gifts. Ironically and incongruously, I also must thank the daycare for elucidating my desires and fears regarding gifts and the exchange economy. Without daycare interrupting our relations, I wouldn’t have realized how much Olivier and I exist in a reciprocal, gift-based relationship. Even more discomforting, these realizations have been formalized through my academic reading—reading that took place while Olivier was in daycare, reading that emerges from the academic exchange system. Complicity and messiness are everything. (Research Journal, written at home, July 28, 2011)

In the end, Olivier was not an active part of my doctoral research project, although of course the material-discursive circumstances of our lives mean that Olivier was always present, even while absent, from the day-to-day process of my studies.

While it may seem like including this narrative here is a deviation from the themes of gift giving, land, and education that are the focus of this chapter, this journal entry tracks a critical moment in my coming to understand the significance of gift giving not as something unfamiliar and distant but as something deeply connected with my experiences of motherhood. Although I still struggle to understand the meaning of gift giving to land with the force of recognition that I sensed the meaning of gift giving in relation to mothering, bringing gift giving in relation to land forward in my research and in the installation is intended as my humble and experimental response to Kuokkanen’s assertion that “indigenous epistemes remain an impossible gift due to the prevailing epistemic ignorance in the academy” (p. 7). Learning from Indigenous scholarship is always risky for nonindigenous scholars, and yet, in attempting to give gifts to land, my hope was to better understand and explain the im/possibilities of the gift from my particular material-discursive situation rather than to romantically assimilate gift giving into my understandings and practices. However, as the journal entry already suggests, my personal journey of becoming a teacher/academic was already deeply imbricated in the tensions between gift giving and the individualist, linear, competitive, and careerist paradigm of economic market exchange in academia.
Exploring the concepts, histories, practices, discourses, and materials of gift giving offers insights into the relationship between materials and discourses, particularly (but not exclusively) in educational contexts. As my narrative suggests, however, it is undeniable that gift giving is a practice that sits uneasily for women enmeshed in modern, patriarchal models of market exchange. Hyde’s (1983) *The Gift: Imagination and the Erotic Life of Property*, offers an insightful view on this dilemma:

What we take to be the female professions—child care, social work, nursing, the creation and care of culture, the ministry, teaching—all contain a greater admixture of gift labour than male professions…. Furthermore, the female professions do not pay as well as the male professions…. But if we could factor out the exploitation [female labour is underpaid], something else would still remain: … ‘Female’ tasks—social work and soul work—cannot be undertaken on a pure cost-benefit basis because their products are not commodities, not things we easily price or willingly alienate…Gift labour requires the kind of emotional or spiritual commitment that precludes its own marketing. (pp. 106-107)

Unfortunately, this already discouraging picture of unpaid women’s gift labour is further exacerbated as women enter into academia:

family formation negatively affects women’s, but not men’s, academic careers. For men, having children is a career advantage; for women, it is a career killer. And women who do advance through the faculty ranks do so at a high price. They are far less likely to be married with children…Unfortunately, more women Ph.Ds. has meant more cheap labour…The early years are the most decisive in determining who wins and who loses. Female graduate students and postdoctoral fellows who have babies while students or fellows are more than twice as likely as new fathers or than childless women to turn away from an academic research career…Women professors have higher divorce rates, lower marriage rates, and fewer children than male professors. Among tenured faculty, 70 percent of men are married with children compared with 44 percent of women. (Mason, 2013)

The implications of Mason’s (2013) research are in line with Kuokkanen’s concerns: academia and the gift-giving paradigm of motherhood are deeply at odds. One thing that both Mason et al. (2013) and Kuokkanen (2007) stress, however, is the importance of *time* in addressing these inequalities:

We wanted students to feel that families are welcome at any time, including in graduate school. The new policies included paid maternity leave for graduate students, help with child care, and a stop-the-clock option so that men and women doctoral students who became parents could take a year longer to complete their degree without being penalized. (Mason et al., 2013, p. 5)
Kuokkanen (2007) approaches this issue from a less practical angle and one aimed at questioning the hegemonic conditions that have made these incommensurabilities possible. Although she acknowledges “the apparently irreducible differences between [Indigenous and nonindigenous] worldviews” (p. 11), she is optimistic:

if we commit ourselves to examining our own assumptions, and reject the hegemonic will to know, and accept our responsibilities to the ‘other,’ we will encounter possibilities of reciprocation at the level of different ontological understandings. This will require a different temporality, one that challenges today’s dominant preference for quick fixes and for cost-effectively mass-producing graduates within predetermined time frames. (p. 11-12)

The time of the gift brings together two complicated notions within the frame of the circle. It is the double binds of this circularity, for instance, in reading about the gift, learning about the gift, recognizing the gift in my relationship with Olivier, and simultaneously losing the gift in my relationship with Olivier, that seemingly marks the impossibility of the gift in academia.

**The circle and its discontents**

The circle has already put us onto the trail of time and of that which, by way of the circle, circulates between the gift and time. One of the most powerful and ineluctable representations, at least in the history of metaphysics, is the representation of time as a circle. (Derrida, 1992, p. 167)

As Derrida (1992) writes, both time and the gift are linked through the symbol of the circle, a symbol of togetherness and community. Hyde (1983) also offers some celebratory, affirmative language linking the circle and the gift:

The gift moves in a circle, and two people do not make much of a circle. Two points establish a line, but a circle lies in a plane and needs at least three points…When I give to someone from whom I do not receive (and yet I do receive elsewhere), it is as if the gift goes around a corner before it comes back. I have to give blindly. And I will feel a sort of blind gratitude as well…When the gift moves in a circle its motion is beyond the control of the personal ego, and so each bearer must be a part of the group and each donation is an act of social faith. (p. 16, emphasis added)
The circle is also an ecological symbol of interconnections. However, just as the etymology of
the word garden reminds us of the relationship between gardens and enclosures, circles are also
enclosures where the relationships and movements between the insides and outsides of this
enclosure can become difficult and contested terrain. Furthermore, Hyde’s invocation of “faith”
as part of the recipe required to understand and belong to the group that participates in the gift
raises the question of circular argumentation and tautology, since the logic of the gift thus
requires faith in the gift to be effective. Both tautology and faith are rather impossible grounds
for rational, Eurocentric academic research!

And yet, how did I come to plant a circle of fireweed (see Figure 10) in the final stage of the
installation series, Threads given? How did I know to come to these symbols? I had not yet read
Lewis Hyde (1983) nor Jacques Derrida (1992), and while I had read Kuokkanen (2007) and her
thoughts on the circulation of the gift, I had not made the connection between circulation and the
In my recollections, the circle came to me via Paulette Regan’s (2010) book on reconciliation that I read in 2012 after having planted *Threads sown*. Regan and her colleagues draw on dialogue circles, circle work, and ceremony in their work on reconciliation and decolonization: “Circles are universal places of connection that invite paradigm shifts. Although circles have a certain structure and format, what happens within each circle is unique and unpredictable” (p. 19). Shifting from the grid to the circle seemed like a reconciliatory response to the difficulties of school gardening history explored in the first installation, and yet, even then it took a long time for this pattern to become settled in my various design sketches and on the land.

One difficulty I encountered in settling on the form of the circle was in the translation of design sketches to material possibilities. For instance, for a short while, I entertained the idea of using the linen thread to create large circles suspended in the air throughout the frame of the classroom, like floating concentric rings. My blindness to the impossibility of circles made of lines hit me with shocking force—I still had not learned that flax, *linum usitatissimum*, is the plant of lines, that woven linen is a tight grid and will never become a symbol of circles. The spider webs, therefore, were a return to the memory of becoming spider during the ‘&’ installation while I spun flax to linen, and, although the webs may look circular they are in fact entirely composed of straight lines suspended in short segments. Later, I decided to literally depict the idea of *Threads given* by planting the fireweed in the form of a looping thread, and this is the design I originally dug into the installation site. But as I stood there, poised to plant, I lost the vision and was frozen with uncertainty. I went home to my journal and—by writing, sketching, and thinking attentively—ultimately decided that a simple circle of fireweed plants was the appropriate design. Although this would once again be a tidy and contained form, I was excited by the ways in which the rhizomatic growth of the plants themselves would grow outside of my control. Furthermore, this unruly circle worked as a representation of the teacher’s role in setting certain conditions or frames for learning to occur, and yet the plants themselves could exceed this representation—much like it is impossible to determine the outcome of pedagogical encounters. As such, when I finally planted the circle in the installation, my sense was that it symbolized more about teaching than an actual expression of gift giving. As the fireweed grew,
however, the material sense of beauty, generosity, and abundance gifted by this circle also grew in unexpected ways.

Months after I had hacked down the fireweed plants as part of my promise to the student gardeners to stop them from spreading their fluffy white seeds throughout the garden, I read Derrida and Hyde on the gift. There it was again: the circle. There is something confirming and disquieting about this closure and symmetry of thought within the patterns of other human thoughts and practices. I felt like I had somehow won a prize or a gold star for getting the right answer. Wasn’t I just so clever? But again, how did I know to grow a circle? Who/what were my teachers? Is there really a universal human understanding of the gift? What’s missing here in this totalizing discourse? Increasingly, it felt like the tautology in the gift is both its promise and its impossibility. Derrida (1992) suggests that our common sense definition of the gift, as someone giving something to someone else, is inherently tautological, since “it seems to imply the defined term in the definition, which is to say it defines nothing at all” (p. 11). Trying to define or rationally understand the gift, it seems, swallows its magic and calls it “the impossible” (Derrida, 1992). As Hyde (1983) writes, “the gift is lost in self-consciousness. To count, measure, reckon value, or seek the cause of a thing, is to step outside the circle, to cease being ‘all of a piece’ with the flow of gifts and become, instead, one part of the whole reflecting upon another part” (p. 152). While Hyde and Derrida have very different understandings of the circle, Derrida’s (1992) conclusion seems rather similar:

[i]f the figure of the circle is essential for the economic, the gift must remain aneconomic. Not that it remains foreign to the circle, but it must keep a relation of foreignness to the circle, a relation without relation of familiar foreignness. It is perhaps in this sense that the gift is the impossible…Not impossible but the impossible. The very figure of the impossible. (1992, p. 7)

Rather than Hyde’s essentialized relation to the circle (which is necessary for the exchange model of economics), Derrida recognizes a relation of foreignness between the gift and the circle. My ambiguous relationship with the form of the fireweed circle in Threads given, my hope that the fireweed exceeds this formal symbolic structure, and my uneasy sense that none of this—fireweed circles, linen memory webs, this dissertation—are truly gifts are perhaps all ways in which I have remained outside the circle, foreign to the gift.
After she was diagnosed with cancer, Sedgwick (2003) explored academic interest in Buddhism, including her own, in her essay *Pedagogy of Buddhism*. Similar to my discomfort with the universality that seems implicit in getting trapped in the circle as the symbol *sine qua non* of the gift, Sedgwick (2003) struggles with the tautology that challenges her own and others experiences of “recognition” in the face of Buddhist teachings. Reflecting on the popular American brand of Buddhist recordings called Sounds True, Sedgwick (2003) writes,

> I’ve noticed that for all its modesty, ‘sounds true’ is a good description of how it feels to assent to or learn from these teachings. It describes mainly an exchange of recognition—at best, of surprising recognition. As if the template of truth is already there inside the listener, its own lineaments clarified by the encounter with a teaching that it can then apprehend as ‘true.’(p. 165)

Recognizing the tautological impossibility of such a statement, Sedgwick simply states, “it’s hard to know how to think about this hermeneutic situation” (p. 165). “Precisely! Hurray!” I shout silently as I read Sedgwick’s work, smiling at the double recognition that this text awakens. Inasmuch as I struggle with an academic definition of the gift, I personally sense a kind of recognition in the importance of gift giving, and judging by the multitude of academic and popular literature (as well as folk stories, as Hyde makes evident) on the topic, the gift resonates across academic disciplines, cultures, and times.

The trueness of recognition aside, Sedgwick (2003) nevertheless struggles where to place this experience: Does this encounter with knowledge come through a blanket ignorance via adaptation, “where the Western consumer selects from a complex Buddhist tradition only those elements that symmetrically answer to specific situational needs” (p. 165)? Or “the sense of recognition arises from bringing together with its Buddhist original some historically Buddhist idea now naturalized by its continued usage in Western thought” (p. 165)? Finally, Sedgwick offers a third impossible option: “is it that the teachings one gravitates to sound true because they are true, and that certain people, Eastern and Western, simply recognize them as such through some kind of individual access to an ahistorical, world-overarching stratum of the *philosophia perennis*” (p. 166)? The problem with all three options, Sedgwick contends, is that they leave untouched the apparently tautological nature of the pedagogical scene itself. By the criterion of ‘sounds true,’ one can apparently learn only what one already knows—whether one knows it through one’s ‘own’ native culture, through long-term cultural introjection of historically foreign ideas, or through direct intuition. (p. 166)
One of the key differences, Sedgwick suggests, between Western and Buddhist pedagogy is that Western learning is linear: you don’t know and then you cross over a threshold into knowing. Buddhist pedagogy is more circular and repetitive with its focus on recognition as both an ends and a means of Buddhist knowing.

Sedgwick (2003) turns to the circle as a pedagogical form for engaging with knowledge, although she leaves the door open from where this knowledge may come. As Derrida (1992) suggests,

>[o]ne should not necessarily flee or condemn circularity as one would a bad reputation, a vicious circle, a regressive or sterile process. One must, in a certain way of course, inhabit the circle, turn around in it, live there a celebration of thinking, and the gift, the gift of thinking would not be a stranger there. (p. 9, emphasis in original)

Planting a circle of fireweed and spinning circle-like spider webs with a group of student teachers was an attempt at certain ways of thinking with the gift, inhabiting the circle of fireweed, and getting caught in entanglements of recognition and repetition.

**Gatherings, giftings, and the mound**

One of the central questions of this research is to explore how discourses and materials come together in becoming teachers. When I framed my research proposal and the installation series, the generosity and hospitality that are associated with gift giving seemed a way to both reconcile the difficult history of school gardens as well as a way to set conditions for humans and the more-than-human to come together in pedagogical encounters. *Threads given*, the final installation in the garden— with its circle of fireweed and its delicate memory spider webs— was my experimental yet heartfelt (why does the word experiment seem to preclude the heart?) attempt to invite others both human and more-than-human into the project and into teaching relationships. Just as in giving gifts to other people,

>[i]n worldviews characterized by the giving of gifts to the land, the emphasis is not on fear of retaliation but rather on expressing gratitude for the gifts and kinship provided by the natural realm. The main purpose of the gifts to the land is to sustain the relationships on which the socio-cosmic order is based. (Kuokkanen, 2007, p. 29)

Whether these acts of gift giving brought people and land into relationships is the focus of this section.
In returning to what comes together in the fireweed circle gifted to the land, I draw on Ingold’s (2013) explorations into mounds as places that bring people and things together, folded into the landscape through processes of landshaping. While not a perfect mound, in many ways the fireweed installation at the garden ended up being quite mound-like in shape, since the pathways around the circle were dug down and the soil that was dug out was mounded up to create the place where I planted the fireweed rhizomes (see Figure 11). It was not by looking at the circle by standing outside of it, however, that it came to life as a mound. As in Ingold’s (2013) experience with mounds, they are to lie in and on, not stand on:

At once, the horizon disappears beyond the periphery of [the traveller’s] visual awareness, which merges with the shimmering luminosity of the sky, while his body is wrapped in the embrace of the damp earth. Thus earth and sky, far from being divided along the line of the distant horizon, are unified at the very centre of the traveller’s emplaced being…Thus the switch in perspective from moving towards an empty space on the horizon to merging with it in the world of earth and sky is associated with the transition from life to death. Yet in another sense, the round mound epitomizes the mystery of life itself, comparable to that associated in Indo-European cosmology with the number zero, signifying the unknowable nothing from which everything comes. (p. 82)

In the opening citations to this chapter, I describe how it feels to go into this living mound: “this afternoon, I entered the circle of fireweed and spread the softest, warmest, most fragrant bed of golden flax tow in between the woven flax straw mats. A bed. A womb. A gift.” (Research
Journal, June 14, 2013). This womb-like space is both cosmological and political (Ingold, 2013). In Jutland, mounds frequently have the name Tinghøf (Thing Hill) and were used into medieval times as places of assembly, where people would come together. Landskap (landscape) at that time referred to an “imprecisely delimited expanse of land bound into the customary practise and subject to the unwritten laws of those who would gather at the same ting” (p. 82). My dream was that people, plants, and place would come together as teachers in this circular mound but, as in the metaphoric significance of the circle for gift giving and time, I once again was not consciously familiar with the significance of mounds (or Tinghøfs) for gathering, enfolding, and knotting things and people together. Although Ingold does not use the specific language of the gift in describing earthen mounds, it is clear that mounds give life:

the mound has no foundations. Nor is it ever complete. One can always carry on adding new material…For the mound is as much of the earth as on it…the mound, we could say, is becoming earth. In fact, the mound forces us to acknowledge that the earth itself is not the solid and pre-existing substrate that the edifice builder takes it to be. It is rather the source of all life and growth. (p. 76)

This description of mounds “becoming earth” and linked to the source (gift) of life begins to introduce the themes of later chapters, namely, those of natality, growth, death, and the difficult and central role of soil in material and discursive becomings. For now, however, I continue with mounding and what may be gathered in this mound, this giving of life.

Cognizant of the risks I take in essentializing my partial, situated, material, and embodied experiences of the mound, I nevertheless recognize that these material-discursive frames enabled me to make things and thoughts possible—and, although these things and thoughts are particular to me, to the garden, and to this project—they nevertheless resonate with Ingold’s (2013) stories of things and thoughts that have emerged out of similar human bodies and their correspondences with similar materials. It is not just geometry—as an abstract form emerging from my mind and projected onto the material world—that dictated to me to create a circular mound. While my journal sketches suggest the circle emerged from such a plan, I really had not paused to consider how I would make this circle until I stood in the garden, poised to dig with my shovel. It was only in making (Ingold, 2013) that I realized that the span of my arms would be the circle’s diameter and that pivoting around the centre of the garden (which I did not find through measurement with a ruler but with a rough estimate based on seeing and knowing the space) with
my arms spread would ‘draw’ the circumference of the circle, which I marked at each 1/8\(^{\circ}\) of a turn with little flags.

Heady symbolism aside, this circular mound with the diameter of my own body is nevertheless a failure of gathering, of coming together. Lying or sitting on the flax straw and tow matting in the centre was peaceful and an embrace with the more-than-human, particularly the hundreds of humming and darting bees visiting the fuchsia fireweed flowers. It was not, however, a space for human teachers to come inside and be together. I had set out seven flax mats, imagining that perhaps one day I would sit there with a small group of people but that day never arrived. In fact, I am likely the only human animal to have really been enfolded inside the mound’s embrace. For while the other gardeners left their traces (sprinklers, hoses, pulled fireweed going to seed) in the circle, I doubt they ever really lingered there. I even suspect that the flowering fireweed was too irksome for the other student gardeners to enjoy, and likely evoked more anger than a sense of womb-like embrace. In the end, perhaps this solitary experience of togetherness in the circular mound is the inevitable aloneness of coming together.

While the mound never gathered student teachers together, _Threads given_ was still a collaborative process and significant in my own stories of becoming an academic and teacher educator. Together with a group of student teachers voluntarily participating in a workshop series on Saturday mornings at The Orchard Garden, we spun the beautiful memory webs on a sunny day on March 9, 2013. Spinning the memory webs was part of a workshop specifically focused on hands-on learning and gardening, where the students also learned about planting seedlings in the greenhouse, composting, and general springtime garden-bed preparation and crop rotations. Before we went outside to the garden, however, I briefly retold the story of my research and _Threads sown, grown & given_, reminding the students about the earlier installations and its historical themes (we had already discussed this during our first workshop on the history and meaning of school gardens). We then cut up the canvas windows and wrote our own, personal memories of gardens on these scraps. Once outside, groups of students worked with me to spin their webs in pairs and knot their garden memories and garden histories into the webs. Jeannie Kerr and I spun a web together, using the linen thread that we had spun together with her students in November at the indoor installation. The work was peaceful, absorbing, and perfect for people with a bent for perfectionism. Jeannie felt herself becoming a spider as she slipped the
spool of thread into her pant pocket, letting it feed out of her ‘spinnerets’ as she went around and around the radial lines of the web that I had already started as a demonstration for the other students.

It was while weaving webs with the workshop group where I saw the way in which this theme of becoming teachers together was a significant force in the project. While my relationship with Jeannie grew over the course of the research, my relationship with her students was too intermittent to develop any of the gift giving ties that I was searching for in coming together with other teachers. The student teachers who attended the workshop series joined us in the garden voluntarily, not for course credit, and in addition to their already hectic course and practicum schedules. Together with The Orchard Garden team of student gardeners and educators, we became part of a community that gave and received gifts by coming together. In many ways, this was the ideal scenario of teachers becoming together. Organized entirely by The Orchard Garden team (a group of graduate and undergraduate students from Education and Land & Food Systems), we came together with the student teachers without the disciplinary enclosures of grades, a classroom, a syllabus, or single teacher. Most workshops usually also involved at least one invited guest speaker from the community or an academic expert. When I asked the students to write Field Notes to reflect on their experiences with the memory webs and the workshop as a whole, students wrote about how:

This workshop has really shown me how powerful a team of teachers can be. (Student teacher, Field Notes, March 9, 2013)

The Garden essentially is a huge community builder. Brings everyone together through learning, physical activity & nourishment (Eating!). (Student teacher, Field Notes, March 9, 2013)

In knotting my canvas into the web, I felt vulnerable in putting a personal memory out in the public (even though it was rolled up, tied, and without my name!) I also felt like I was leaving a piece of myself behind —> And was excited about the energy that will be created in the installation from all of our stories coming together. (Student teacher, Field Notes, March 9, 2013)

I will never know what the last student imagined this energy would be when stories come together in a place, and yet, I too have felt that this particular research project has been driven by an energy that comes from all these things gathering together. Perhaps it is a peculiar faith in gift giving that is this energy?
**Threat of the gift**

In writing about the threat of the gift, I am going to share a story that is a secret, one that should almost not have been written. Secrets are particularly dangerous gifts, and since this one implicates me in an instance of campus gift giving (read: activism), I am all too aware of the risks that this gift carries. However, academics may need to engage in risk-taking activism if the logic of the gift is to truly change academic practices and relations. Kuokkanen (2007) recognizes the threat of the gift in the academy:

> Besides constructing the gift as symbolic violence, colonial and patriarchal authorities have interpreted it as a threat and in this way have demonized and pathologized it...Scholars and theorists have long represented the gift as a paradox, enigma, aporia, simulacrum, or impossibility...The ambivalence of the gift is also reflected in its double meaning. Etymologically, the word for gift in most Romance languages derives from the Latin *dosis*, a 'dose,' as for instance in poison” (p. 45-46)

With that rather melodramatic introduction, let me share with you the story of how *Threads given* concluded with a gentle form of activist gift giving.

In my original research proposal, I imagined the final installation would be a solemn and rather formal performance for the general UBC community to witness and participate in giving something woven out of linen to the land, perhaps even materials that might resonate with the history of residential schooling in Canada. In the end, however, things unravelled and the threat of imminent construction at the garden emptied this original narrative structure of its emotional strength. While I was satisfied with the gift-giving fragments (memory webs, fireweed rhizomes growing and blooming in a circle, flax straw mats and tow) that had emerged during *Threads given*, I still did not sense that the installation had come together and fully explored the meaning of gift giving to land. It was a promise made to the student gardeners before I planted the fireweed that changed this situation. Promises, like secrets, are dangerous words to give another person, and before planting the fireweed rhizomes I appeased the student gardeners that the fireweed plants were not threatening to the garden since I would remove the flowers before they went to seed.

“But you promised!” One of the student gardeners admonished me.
“Yes, I know, I will, I will. But…why does it matter now? The garden will be gone next year...we should just let it go!” I replied, heart pounding, smile brittle, a flush painting my cheeks fire-red, my rebellious instinct grappling with emotions, desires, and desperation as the implications of the garden becoming a construction site sank in once again.

“I have a conflict in me as the practical person who is working in the garden with the fireweed, and how it scares me a lot,” the one student gardener replied. “Did we tell you how we had this conversation with two other gardeners and, while one guy was like, ‘Oh yeah, that’s interesting,’ the other was like, ‘What the hell are you doing?!’ And this kind of embodies my inner conflict. I do think this use of the weeds ties into your themes really well...but...I’m very scared of them. I’m so scared that next year we’ll have fireweed everywhere. And then we’ll curse your name. [We all laugh]. But, putting aside my fears of the fireweed from a gardener’s perspective, I feel like you’re hitting something more solid with that part of the installation than with the spider webs.”

Planting fireweed rhizomes for Threads given came with a promise, but like all promises in fairy tales, promises made in moments of desperation can haunt a person later with dangerous, unpredictable consequences. Now that the fireweed was in bloom, I—and hundreds of bees and other insects—were in love with its ravishing flowers. Also, I wanted the seeds to fill the garden and permeate the soil and drift through the air. I did not want to interrupt the plants and strip them of their seeds, even buoyed by the hope that the remaining underground rhizomes would survive and continue to spread. I wanted to retract my promise to the student gardens and honour a larger promise I made when I invited fireweed into the garden as a gift.
In the end, although my heart screamed in resistance, I cut down the entire circle of fireweed with brutal efficiency (see Figure 12). However, I simply could not throw out the beautiful flowers that I had planted as a gift. While the fireweed flowers—still filled with the lives of bees—slowly wilted in a wheelbarrow at the garden, I returned home to ponder my next step. The next evening, after a long conversation with a friend about the project, we both returned to the garden. I gathered the fireweed in my arms and spread it along the walkway of the campus planner’s building. A large bouquet rested on the door, a gift awaiting the first of the campus planners’ arrival in the morning.

My journal entries track the final stages of the gift-giving installation, which I still feel uncomfortable disclosing in a dissertation. Were my actions gift giving, activism, art or research? Can I actually write about these things in a dissertation accredited to me by the very university I critique? My affective attachments and desires aside, my academic reading of Kuokkanen (2007)
and Halberstam (2011) was suggesting, “Yes, you must!” After over a year of materially and discursively engaging with the garden through *Threads sown, grown & given*, I could not passively or silently step aside and accept inevitable destruction, even the destruction I had caused myself by cutting down the fireweed plants. While Halberstam (2011) is sympathetic to moments of failure where we collaborate with oppression, ultimately her utopic vision is of radical fragmentation, an “antisocial feminism that refuses conventional modes of femininity by refusing to remake, rebuild, or reproduce and that dedicates itself completely and ferociously to the destruction of self and other” (Halberstam, 2011, p. 138). Granted, in coming together with fireweed plants, my ferocious act of spreading fireweed on the doorstep of the campus planners is insignificant and all-too gentle; however, it did displace my other more self-destructive desire to respond to the university’s development plans by quitting my doctoral studies in a public spectacle. My only hope is that the smaller action planted gifts of fireweed seeds in new, unexpected places.

I fulfilled my promise today to remove the fireweed seedpods before their seeds fill the air and soil. I didn’t rebel. I lingered, learned, listened, hesitated, tried to be present and attentive. Mostly I felt disruptive. The fireweed was filled with bees, even after I cut it all down and it lay—brilliant, radiant, glowing—in the red wheelbarrow. After it was all cut, a sad empty patch remained. But flax plants, straggling and thin, are there. Friendly flax, unthreatening, quiet, humble. Ferocious fireweed, consuming, threatening, unsettling. But what to do with the fireweed itself? It will go to seed unless I dump it in UBC’s compost [UBC has an industrial composter that heats enough to kill weed seeds and pathogens], which seems inappropriate for a gift of regeneration. My desire is biological warfare—to dump the whole load of plants onto campus planning’s lawn or some other disturbed site. Question of soil & its purity is what fireweed provokes. The student gardeners—and this really irks me—let a thousand other weedy plants go to seed everywhere but feel particularly threatened by the fireweed. Because it’s intentional? Art? Rhizomatic? Thistles, bindweed, smartweed, lambs quarters, pigweed, plantain, grasses, and purslane all grow/proliferate in profusion. They are even proud of this. After I cut down the fireweed, I compulsively pulled out a mountain of seedy weeds from other areas of the garden, some nearly as tall as me—spitefully until I was dirty and sweaty. (Research Journal, August 13, 2013, 10:15pm at home)

Delivered the fireweed gift to campus planning today—activism, excitement, conspiracy, complicity, friendship. My co-conspirator asked me, ‘What’s this all about?’ I replied, ‘Keeping the gift circulating, in motion.’ Dumping the fireweed blossoms & seeds into the garbage/compost felt wrong, closed, even traitorous to the beauty, life, ‘gift’ of fireweed.
You don’t destroy gifts. Spreading the plants on the walkway, a final bouquet leaning against the door. Were security cameras watching us? Of course they’ll know it’s from The Orchard Garden and then it’ll be easy to guess it’s from me. But it’s activist, performance art. What can they do? I stand by the action. Nothing was destroyed but perhaps thoughts & feelings were provoked (‘Damn hippy students…’). Perhaps people will talk and wonder what it’s about. So, I feel some closure to leave for our vacation in Ontario now. Seeds in motion. Nomadic gardens. (Research Journal, August 14, 2013, 10pm, at home)

And those are the final words of my research Journal. Other journal reflections have emerged while writing this dissertation but the two hand-written books that accompanied the installation series were completed that day. While the installation provided a focused frame for “data-collection,” this process of meaning making with the garden is never-ending and always responsive to particular moments and places.

Even as I write this now, I fear how the weedy gift, hastily spread on the steps of the university’s campus planning offices (see Figure 13), is embarrassing, insignificant, wrong, immature, silly, naïve, and—ultimately—a failed ending to the installation series. Taking up Halberstam’s (2011) thinking on failure helps me understand that perhaps no other response was possible.

What kinds of reward can failure offer us? Perhaps most obviously, failure allows us to escape the punishing norms that discipline behavior and manage human development with the goal of delivering us from unruly childhoods to orderly and predictable adulthoods. Failure preserves some of the wondrous anarchy of childhood and disturbs the supposedly clean boundaries between adults and children, winners and losers. And while failure certainly comes accompanied by a host of negative affects, such as disappointment, disillusionment, and despair, it also provides the opportunity to use these negative affects to poke holes in the toxic positivity of contemporary life. (p. 3)

22 In fact, contrary to my reflections in my journal, destruction or consumption are ways of acknowledging gifts and increasing their value (e.g., during potlatch ceremonies). (Hyde, 1983)
In fact, the notion of response-ability, Kuokkanen (2007) suggests, is what lies at the heart of gift giving:

My particular focus in this book is on introducing a logic capable of teaching the academy that relations and interdependence are indispensable. The philosophy of the gift foregrounds the notion of responsibility as well as a recognition that gifts cannot be taken for granted or regarded as commodities. In indigenous philosophies, these responsibilities are observed through diverse ceremonies (such as the potlatch and various ‘give-back’ practices) and verbal and physical gestures of gratitude (such as the thanksgiving address). The academy has yet to realize that recognition of the gift is informed by responsibilities such as participation and reciprocation. (p. 23)
While I cannot ascribe my gift-giving practice as informed by particular Indigenous ceremonies and protocols, I certainly can recognize the sense of participation and reciprocation that compelled this activist event at the end of the installation series. Nevertheless, the sense that I have acted alone, as an individual, remains troubling. Similar to Kuokkanen’s (2007) concerns that I noted at the beginning of this chapter, Eduardo Grillo Fernandez (1998) also recognizes that Quechua peoples in the Andes do not engage unilaterally or independently in nurturing activities. Rather, they must ask permission of the entire community (human and more-than-human) through a series of rituals in order to proceed. In this manner, the human community nurtures the *chacra* (similar to field or land, yet includes a sense of ritual space) through *ayni* (work in reciprocity; Grillo Fernandez, 1998, p. 230). In the next section, I take up this theme of responsibility, participation, and reciprocation in terms of reconciliation and regeneration, two terms closely linked with the gift-giving events of *Threads given*.

**Research, reconciliation, regeneration, and the gift**

Throughout this research, the ethical questions of my methodology have frequently circled around questions of research as gift giving, research and reconciliation, research and regeneration. Arts-based research in particular can be viewed through the lens of gift giving. As Irwin and O’Donoghue (2012) wrote,

> Relational art is not concerned with looking at objects or imagining conceptual ideas to consider, but rather seeks to provide events for an audience as a gift, an offering (see Nistrup 2004). These events are specific to a site, location or even a context, as they seek to offer a space for participation for those who wish to be engaged in thoughtful considerations. (p. 231)

In addition to gift-giving relations to land, this research also emerged at a particular time in Canadian history, namely that of Canada’s Truth & Reconciliation Commission (TRC) into the Indian Residential school System.23 Although *Threads sown/Threads grown* was in response to

---

23 While I focus primarily on reconciliation in terms of settler colonialism and the residential school system, this work highlighted a rather sudden realization that since I attended school in Canada, I never engaged with the personal and collective work of reconciliation that emerges through the pedagogical and curricular projects of the German school system. As an adolescent, I was a voracious reader of stories that dealt with the holocaust; however, I read these as an “ally,” an Anglophone reader morally and geographical situated in Canada. It wasn’t until conducting this research that I realized that the work of responding to this history did not end when I read *Anne Frank* as a young person but must also be entangled in becoming (and unsettling) my adult self.
the difficult history of school gardening, including the period associated with the Indian Residential schools, *Threads given* was intended as a reconciliatory response to this difficult history—not to ‘put the past behind us’ but to engage ethically with the ongoing implications of settler colonialism and genocide. According to the TRC,

There is an emerging and compelling desire to put the events of the past behind us so that we can work towards a stronger and healthier future. The truth telling and reconciliation process as part of an overall holistic and comprehensive response to the Indian Residential school legacy is a sincere indication and acknowledgement of the injustices and harms experienced by Aboriginal people and the need for continued healing. This is a profound commitment to establishing new relationships embedded in mutual recognition and respect that will forge a brighter future. *The truth of our common experiences will help set our spirits free and pave the way to reconciliation.* (TRC, 2006, p. 1, emphasis added)

Reconciliation, however, is a problematic term fraught with difficulties and certainly not as smooth and straightforward as the TRC’s metaphoric reference to *paving* the way might suggest. As a Christian concept, it suggests that a return to an original state of harmony (with God) is possible and that the dialogue required to return to “freedom” will be based on “common” understandings and experiences. State-driven processes of reconciliation, such as the TRC, can be individualist, instrumentalist, and, although they are frequently based on legal proceedings, tend to provide immunity for perpetrators.

Regan’s (2010) work offers a useful starting-point for settlers attempting to understand the possibilities and limitations of reconciliation. As Regan (2010) writes, reconciliation can result in tokenism, assuage settler guilt, over-emphasize the need for Indigenous people to heal or reach closure, re-victimize survivors, not address Indigenous self-determination, and lead to emotional paralysis, empty apologies, and colonial empathy rather than action. Nevertheless, as a pedagogical strategy, reconciliation can also lead to creative confrontation; building alliances and solidarity; apology as a catalyst for action; demythification of settler history (e.g., Indigenous inferiority, settler infallibility); monetary and cultural reparations; reconciliation in the context of Indigenous struggles for self-determination, self-sufficiency, healthy communities in accordance with customs, law, and connections to the land; social transformation; transformation of consciousness; and the diminishment of enmity and establishment new relational bonds (Regan, 2010, pp. 55-61). Regan’s experience and review of key literature in areas of conflict studies and findings emerging from truth and reconciliation processes around
the world offer some direction here. In summary, Regan (2010) suggests that the terms of reconciliation ought to address a decolonizing place of encounter; a space for collective critical dialogue; “a public remembering embedded in ethical testimony, ceremonial, and commemorative practices” (p. 12); an interrelated process of material and cultural transformation and not just interpersonal reconciliation between the perpetrators and victims of human rights abuses” (Jefferess, 2008, 144-145, as cited in Regan, p. 215-6); and a true apology, “a ‘remedial ritual’—an ‘enacted story’ that is performed with a humility that must be spoken” (p. 179). Ultimately, reconciliation is not an end goal but a personal, collective, ethical, pedagogical, and performative process of encountering, listening, and responding through which spaces between victim/oppressor, Indigenous/settler relations become blurred, re-storied, and re-situated.

As a site-specific installation and research project, Threads sown, grown & given attempted to act as an informal assemblage of sites to engage in practices of public, personal, interpersonal, and ecological decolonization and commemoration. For instance, drawing on Natalie Oman’s work, Regan suggests how “the transformative shift from a settler culture of denial to an ethics of recognition might occur in public performative space that is experiential, subjective, and emotionally engaged” (p. 188). In light of these recommendations, university campuses might offer useful sites for such performances, if these spaces continue to remain public spaces—an increasing difficulty given the corporatization of postsecondary education. One of the difficult elements of the installation series, however, was really to engage student teachers with the difficult histories that prompted the project. Few students explicitly engaged with these issues in their written field notes documenting their experiences with the installations. However, gift giving and reconciliation can be sensed in the words of two student teachers after weaving memory webs in the garden (see Figure 14):

Having to rip up or fold my garden memory was difficult. Yet it was nothing compared to what residential school students & families experienced. Perspective on what we have, what we keep, what we let go, and what we need/want. (Student teacher, Field Notes, March 9, 2013)

Humbling practices that disrupt our expectation of ‘immediate return’ upon giving something. (Student teacher, Field Notes, March 9, 2013)

While it has not always been evident that the installation series resulted in a public, pedagogical space for reconciliation, the stories from Threads sown, grown & given that are written into this
dissertation and presented in conversations and conferences beyond this text are parts of my attempts to publicly enact reconciliatory stories with creativity, humility, and the occasional risk-taking.

Figure 14 – Memory bundle knotted in a linen spider web, *Threads given*, 2013

Returning to Derrida, Kuokkanen, and Hyde, I recognize that reconciliation and reciprocity in research or otherwise do not entail gift giving if the intentions and actions are to right a wrong, repay a debt. In the case of the installation series, it is possible to see how planting fireweed after a monoculture of flax could be an attempt at righting an ecological wrong, just as collaboratively weaving memory webs could be a way to apologize for the wrongs of residential schooling or to assuage settler guilt. However, these actions did not emerge from feelings of indebtedness but rather because I felt compelled, for reasons beyond my rational understanding, to respond. The particular responses that emerged in this project may be inappropriate but that may not in fact matter. As an Indigenous scholar and professor of ethnobotany once said to me while I sat in the
fireweed circle and we chatted about gift giving, I could give my spit as a gift so long as the intention was right.

Planting fireweed and spinning memory webs and this dissertation are all gifts both given and received as stories. They are not apologies, debts repaid or other forms of linear reciprocation or obligation. Such exchanges would be like always looking over one’s own shoulder to the past, afraid of being caught guilty of owing something to someone. Rather, these gifts respond to the past, create the present, and anticipate an unknown future. Ingold (2013) writes that through this way of “feeling forward rather than casting our eyes rearward, in anticipation rather than retrospection, lies the path of discovery” (p. 2). This forward-looking path of discovery, nevertheless, requires particular modes of critical historical consciousness (Chinnery, 2010), especially since the discourse of discovery is so highly problematic for research conducted in settler colonial contexts.

Gift giving in research can be a powerful mode for sowing and growing regenerative relations with people and places, while still responding to difficult histories and contemporary contexts through ethical engagements. Regeneration, unlike reconciliation and reciprocation, suggests growing a new world and new theories (Grosz, 2011, p. 83) embedded in the relations of the old. It is not transformation, says Fréderique Apffel-Marglin (1998), nor creating something out of nothing. As Quechua scholar Grimaldo Rengifo Vasquez (1998) writes, regeneration is the emergence of new forms of life already contained in the existing ones…Regeneration implies not only the re-creation of each one of the members that participate in the regenerative act (which could be interpreted as repetition) but also the amplification of forms of life. One characteristic of every regenerative act is the equivalence and affection between the members of nature and not the separation and hierarchy between the natural and the human communities. (pp. 96-97).

Methodologically, the ethical stance of gift giving in research suggests that ethics and responsibility are not “just a problem of knowledge but a call to relationship” (Spivak, 1996, p. 5, as cited in Kuokkanen, 2007, p. 115). It is this call for relationships via gift giving that this research into becoming teachers together attempts to both understand and create.
Gift giving as a research methodology in relationship with land and people is a paradigm of great potential—for reshaping the academy, as Kuokkanen (2007) proposes but also for misappropriation and a return to cliché—since, as Derrida (1992) writes:

For there to be a gift there must be no reciprocity, return, exchange, counter gift, or debt…It is thus necessary, at the limit, that he [the donee] not recognize the gift as gift. If he recognizes it as gift, if the gift appears to him as such, if the present is present to him as present, this simple recognition suffices to annul the gift. Why? Because it gives back, in the place, let us say, of the thing itself, a symbolic equivalent. (pp. 12-13)

Perhaps due to this conceptual complexity, the gift and gift giving are clichés that circulate and are exploited widely in hyper-consumerist, individualist capitalism. Clichés are risky ways to express complex ideas, and one of the greatest risks may be in the misappropriation or even erasure of meaning itself. For instance, I have seen this misappropriation and erasure happen in the site plans for the new Orchard Commons—to be constructed after the destruction of The Orchard Garden. These plans draw on the notion of the gift to brand and narrate the design of Vantage College’s two large high-rise residence buildings and large cafeteria. According to the architects, four design principles frame the construction plans of the Orchard Commons: Third space, Gift, Global ecozones, and Hyperspace. Specifically, the initial design documents consider the gift in the following terms:

Expressed in the landscape, a design that integrates the origins of the garden—a food source—into a campus setting has great potential. What is the gift that this place provides to the rest of the UBC Campus? Apples grown from the original orchard trees, transplanted and given prominence on the site? Honey produced from Orchard bees foraging throughout campus? (hapa collaborative, 2014, p. 1)

While Derrida, Kuokkanen, and Hyde make it clear that gift giving is not a reciprocal relationship of exchange, the gift-giving relationships described here appears particularly one-sided—as a benefit provided to human campus residents. The complex grassroots, Indigenous, and radical academic discourses and practices around gift giving that I have begun to explore—with a profound recognition of the risks I take in mis/appropriating these teachings—have apparently been seamlessly co-opted into design parlance to animate a project that will charge international students nearly $45,000 for one year of tuition for introductory university study, English language support, and residence fees (Gorgopa, 2013; Rankin, 2014). It is my humble hope that this dissertation, particularly through the relationships that emerged through *Threads*
sown, grown & given, has enacted gift-giving stories and practices where what has been given—including encounters with linen memory webs and fireweed flowers, seeds, and rhizomes—will create unpredictable possibilities for regeneration and becoming teachers together.
Chapter 4 – ‘&’: Knotting materials and discourses together

Knots evoke the stretching, twisting, and folding processes that characterize becoming. A knot is an event, a potentiality. (de Freitas, 2012, p. 568)

Originally, when I proposed the installation series, one version of the title was Threads sown, grown, woven & given. The idea was to bring the materials indoors from the first installation, Threads sown/grown (designing and growing the gridded flax classroom outdoors), and weave these into the linen gift for the final gift-giving installation back in the garden. However, as the first outdoor installation came to an end, I felt confined by the prescriptive sense of weaving a gift, and began to reflect more on how this moment of the installation was much more about bringing together the materials and discourses from the project that had emerged so far, dwell with them, have conversations with them, and then wait and see what would emerge in preparation for Threads given. Since I could not find a word to describe what this indoor installation would be about, I dropped the word ‘woven’ and simply left the ampersand ‘&,’ which seemed to gather everything together into a thread (like the linen thread I sat spinning with my drop spindle) twisting and turning into a loose knot. The metaphor of the knot, in all its material and discursive complexity, frames this chapter.

Metaphorically, knots are powerful ways to think about material-discursive practices that bring things together. They may also suggest ways in which togetherness does not exclude singularity and aloneness. Knots, Ingold (2013) suggests, “are places where many lines of becoming are drawn tightly together. Yet every line overtakes the knot in which it is tied. Its end is always loose, somewhere beyond the knot, where it is groping towards an entanglement with other lines, in other knots” (p. 132). These knots, Ingold writes, create a meshwork where “nothing ever quite fits” (p. 132), where lines are entangled but not connected, unlike the network: “the network is a purely spatial construct. The lines of the meshwork, by contrast, are of movement or growth. They are temporal ‘lines of becoming’” (p. 132, drawing on Deleuze, 2004, p. 224-225). Knots are not static, unmoving, eternal ways of binding things together. There are also loose ends where nothing ever quite fits, where lines grope for entanglements, where movement and becoming are equally present. Ingold gives two helpful examples for the metaphoric knots and meshworks he is considering: wool that has been felted and the silvery
traces of slug paths that an attentive observer may find early in the morning on the pavement. Each thread or path is a line of movement that crosses other paths but continues on its separate way. What these meshworks suggest for this research is that becoming teachers together in ways that entangle materials, discourses, and bodies of all kinds creates forms of togetherness or solidarity that can still entail movement, difference, separation, and detachment.

Figure 15 - Indoor ‘&’ installation poster, 2012
Knotting the materials and discourses together in this indoor installation was performative as much as it was a site-specific installation. As the poster indicates (see Figure 15), indoor installation events began with an opening on November 13, 2012 and included a daily period from 10am-12pm, November 13-30, where I was at the installation, spinning linen and talking with anyone who came by. The ritual of this three-week performance included gathering my spindle, flax fibres, and a bowl with a wet sponge, and spinning flax to linen at a round table set with four chairs (see Figure 18). Marking invisible walls around this table were the four canvas windows from the summer installation, now flecked with mould and discoloured from rain and sunshine, hanging from threads from the ceiling on two sides. A new window hung on the third wall; this one was black and divided into four vivid, full-colour square picture panes. Each pane recalls aspects of Threads sown/grown: Seeds planted in gridded desk plots; flax plants growing and glowing in a beautiful grid alongside a carefully weeded and raked dirt path; a blue flax flower and ripening flax seed bolls in sharp focus with the historical windows as a blurry backdrop; and, finally, a circle of twisted flax fibre skeins ready to be spun, golden on a green lawn. The entire window was embroidered with roughly spun linen thread (the outcome of my first attempt at spinning) stitched in a crosshatch pattern. Dividing the area between the table where I sat and spun from the rest of the room was a large, slate grey board. On the side of the board that faced the table, I pinned photographs and quotes from the summer installation, as well as every new cop of linen thread that I or students/participants spun during the three week installation. On the other side of the board, I set up my computer to project a slide show and time lapse depicting images from the summer installation on a large television screen fixed to the wall.

The seasonal timing of this installation and the ways in which I engaged with the materials and discourses of it were also significantly interconnected. Spring and summer truly are times to sow and grow but as the dark, rainy fall approached and the installation moved indoors into the basement of the teacher education building, the rigid grid and the linearity of the project began to collapse and decay. Fall and winter are months of decomposition, imagination, silence, waiting, and turning inwards, and the simplicity of the indoor installation echoed this austere tranquility and created a framework for spinning, thinking, and conversing. Austere tranquility, however, was both my friend and foe during those three weeks. The location of the installation
was in the basement of a four-storey building, and, although the room was the only student lounge and would become very busy during lunchtime, during the mornings it was often very quiet. The walls were white, there were no windows, and the white noise from the fans hummed to fill the space. Most days, only a handful of people (student teachers, friends, colleagues, staff, and faculty members) would drop in to visit, although by the end of three weeks, my research journal records approximately 45 visitors to the installation while I was spinning.

On November 13, the first day of the installation, I organized a small opening with friends, family, a handful of students (student teachers and graduate students), and faculty in attendance. I was disappointed with the small turnout, although I enjoyed talking about the project, answering questions, and spinning a bit of linen together. That first week was the most challenging. I felt out of place and awkward as I learned to spin within the installation space and tried to understand what it was I was trying to do and research for two hours every day in this
strange, quiet room. By the second week, however, my spinning had improved and my focus turned away from feeling like a failure to the pleasure of making (Ingold, 2013), of feeling my body learn a new skill. This second week also included a research event at the installation on November 20 with a class of students. The focus of the class, taught once again by Jeannie Kerr, was on Indigenous education and relationships with land. We organized the morning workshop by starting with our memories of childhood schoolyards, visiting the installation in the basement, engaging in individual reflective writing and a group discussion, learning to spin flax to linen with hand-made drop spindles, listening to a presentation by Debra Sparrow, a well-known Musqueam First Nations weaver and artist, and concluded the workshop by walking out in the rain to The Orchard Garden to visit the installation site. This research event forms the basis of many of the thematic knots in this chapter, which is why I only describe it briefly here.

By the end of the third week of the installation, I was sad that this phase of the project was coming to an end. However, I was also disappointed that the installation had been largely inaccessible to student teachers both due to its location in the basement lounge and the ways in which I had arranged the installation as an enclosure, which made it difficult to invite participants to connect with the project (the project’s conceptual inaccessibility was an additional barrier). I was also disappointed in my own conformity and submission to setting up the installation in the basement, since my vision had originally been to be located in the busy front entrance of the teacher education building but the teacher education office rejected this location. On the last day of the installation in the basement, I expressed my disappointments and reluctance to one of my peers who visited the installation that day. In response, she suggested that I take the installation to the halls for some nomadic guerrilla spinning. Venturing out into the halls with only my spindle, flax fibres, camera, and notebook felt vulnerable and exposed after the confinement of the basement and the wall-like enclosure of the installation. It also felt exciting and unpredictable, and, although I only had a couple occasions to spin before the end of the term, I loved the spontaneous encounters that my presence in the more vital hallways of the education building provoked.

---

24 See my March 23, 2013 blog post, “Inside the Outdoor Classroom Installation,” (Ostertag, 2013a)
With this brief introduction of the indoor ‘&’ installation and the metaphor of the knot, I return now to the research question, *How do we (humans and more-than-humans) become teachers together?* and the three narrative threads (garden becoming teacher, student teachers becoming teachers, and my own personal journal of becoming a scholar/teacher educator) to help frame this chapter. In response to the experiences of the indoor ‘&’ installation, I consider four thematic knots: (1) ‘It all comes together in the end;’ (2) coming together and being alone; (3) the shame of difficult knowledge; and, (4) spinning threads and becoming spiders together. The knots explore various facets of becoming teachers coming together and engage in theoretical conversations with material feminist and posthumanist theory, Indigenous scholarship, as well as generative debates emerging from contemporary art theory (relational aesthetics, participatory art, and site-specific installation art).

The first knot opens with a quote from one of the students from the research event in November, who, after participating in the indoor installation workshop and walking out to the garden, said, “It all comes together in the end.” While this statement echoes posthumanist desires to entangle materials and discourses (Barad, 2003; Hekman, 2010; Taguchi, 2012), these theoretical conversations become much more complicated in the context of the indoor installation, where gazes, bodies, memories, affects, and photographs co-constitute a meshwork (Ingold, 2013) that challenges straightforward notions of ‘coming together,’ particularly in the context of teacher education. Ironically, and this is the focus of the second section, in what I had imagined would be a space for coming together, my experience of performing the indoor installation frequently saw me struggling with the profound sense of being alone. Aloneness, in fact, is a theme that wound its way throughout the entire project, and I approach this unexpected sensation through the equally unexpected, yet generative, sensation of failure (Halberstam, 2011). Four separate threads are entangled in this large knot: (a) conversations in contemporary art theory, particularly the lively debates between Bishop (2012), Kester (2011), and Bourriaud (2002), about the relationship between the individual and the collective; (b) the failure of arts-based research and the importance of failure in arts-based research (LeFeuvre, 2010); (c) the failure of setting, particularly within the context of the increasing neoliberalization of university education, and how this creates conditions of heightened individuality rather than togetherness (Berg, Guhman & Nunn, 2014); and (d) encounters of solitude in the wilderness/garden
Thoreau, 1854/1995) and Arendt’s (1966) contributions to understanding the nuances between loneliness, solitude, and isolation. The third knot explores the difficult knowledge (Pitt & Britzman, 2003) that unsettles the knowing self, and is a critical yet uncomfortable part of becoming a teacher. Encountering difficult knowledge with student teachers and their instructor Jeannie Kerr in the context of Indigenous education for teacher education created unruly and unpredictable situations that challenged our pedagogical relationships. Finally, these philosophical discourses cannot be disentangled from material practices, which brings me to the fourth knot of becoming a spider that emerged while I was spinning flax to linen thread (Ingold, 2000, 2013). Becoming a spider (Grosz, 2011, Haraway, 2004) through routine and ritualized performances of spinning (Apffel-Marglin, 2011) was a surprising gift of regeneration from an arts-based research methodology that draws attention to the human and more-than-human within processes and relationships, rather than seeking to see the world from above or outside relationships.

**It all comes together**

I really liked how it all came together in the end. I think a lot of the things we learn are very specific and one topic, and I like how all this came together in the end….It was a classroom but it also comes together as the flax, and everything comes to the learning—the things that are in the classroom as it is as a whole. It was really interesting and so different from all the other things that we’ve done [in teacher education]. (Student teacher, Video recording, November 20, 2012)

Sitting at the little round table and spinning flax to linen surrounded by the old windows from the garden, the vivid photographs of sowing/growing the flax desks, students’ quotes and historical images and texts, I felt like the material and discursive threads of the installation and this research were all coming together. While in the following thematic knots I will explore some of more difficult nuances of this coming together, there are rich and complex ideas that might reconfigure ideas and practices around becoming teachers and education more generally to be found by unravelling the knots of things coming together in the ‘&’ phase of this research. One of the most difficult intellectual challenges of this work, and one that I pondered regularly while spinning and conversing with people at the installation, was to consider the implications of material feminism and posthumanism for reconfiguring our notion of becoming a teacher. Rather than an isolated, solitary body, a teacher could be reconfigured as an interdependent
entanglement of an “ongoing co-constitutive co-existence of different kinds of bodies (human as well as non-human or more-than-humans)” (Taguchi, 2012, p. 271). Teachers are certainly not conventionally characterized by “processes of entanglements and interdependences,” as much as these may reflect the lived realities of everyday teaching even within the enclosures of classrooms and standardized curricula. However, it is this notion of the teacher as rational, autonomous, and contained that this convoluted, experimental research journey with the garden attempts to unsettle by seeking to create conditions for knotted assemblages of becoming teachers together.

Hekman (2010) draws on Latour’s notion of new settlements to elaborate the materiality of knowledge rather than a modernist separation of language/reality. This new settlement “incorporate[s] an idea that seems on the face of it counterintuitive: that nonhumans act. Collectives are assemblages of humans and nonhumans, nature and culture, science and politics, and all the elements of the mix act in conjunction with all the other elements” (pp. 20-21). While there are many materials and discourses that came together in this research to create new settlements in pedagogical encounters, by following the knots in the meshwork (Ingold, 2013) of the indoor ‘&’ installation, a very particular instance of ‘coming together’ emerges when I consider a photograph of student teachers at the November 20 research event gazing at student teachers performing in Threads grown during the summer research event at The Orchard Garden.

At the indoor ‘&’ installation, many students gravitated toward the blackboard and gazed intently at the bodies, materials, and discourses on display (see Figure 16). After viewing the installation, one student wrote in her Field Notes:

I wish it were summer! The colours of the photos are so vivid and I can imagine that those candidates who took part in the garden felt connected and inspired. I feel somewhat disconnected from the process…until we start the weaving that is. Some of the comments made by the candidates were very profound and significant. (Student teacher, Field Notes, November 20, 2012)
Layering and juxtaposing texts and images from the summer installation into the indoor installation created a unique experience of familiarity and distance for the student teachers. It seems like some students were looking at and judging themselves in those pictures: Could I be like those students performing in the garden? Could I write such profound and significant reflections about my experiences in a garden installation? The photographs and words, displayed on the blackboard in the installation, had already assumed an aesthetic sheen, familiar but distant from the day-to-day experiences of these new student teachers just beginning their program. Due to a lack of in-depth interviews with the student teachers, it is nearly impossible to understand why many were drawn to these photographs and texts. Perhaps the students were drawn to the images because they were conforming to an internalized understanding of what  

25 The student teachers were only in the third month of their yearlong program when they participated in the research event on November 20, while the students in the photographs were in the final month of their program.
performing an appreciative attitude of reverence in front of art (O’Donoghue, 2014, personal communication). I like to imagine that witnessing the strange activities of the student teachers in the garden was an unsettling, intergenerational (Brennan & Clarke, 2011) pedagogical experience that juxtaposed with these new students’ increasingly determined sense of what it means to become a teacher through a teacher education program. While I risk making sweeping generalizations, student teachers in the teacher education program spend hundreds of hours moving through conventional classroom spaces and curricular disciplines that continue to reproduce the physical and disciplinary separation of teachers from one another, from different ways of knowing, and from their places.

Figure 18 - Teacher education building classroom hallway with graduating class photographs

The main classroom hallway of the teacher education building is not unlike the rectangular gridded classroom frame in *Threads sown/grown* (see Figure 17). The hallway is lined with red doors marking the entrance into separate rectangular classrooms filled with desks (however, unlike *Threads sown/grown*, the position of the desks are not fixed in a grid, they move depending on the needs of the instructor or students). Large, glass-framed photographs of graduating classes from the teacher education program line the otherwise bare walls of the hallway. The photos are familiar for anyone who went to public school: a grid of faces, row upon row, portraying the individuals who have passed a particular linear educational marker in their lives. Separated by a blank white background, each face carefully positioned and framed by the
photographer, these photos suggest a democratizing narrative of individuals while erasing stories about the places, relationships, processes, materials or discourses that have shaped their experiences of becoming teachers.

While these graduation photographs depict a group of people, the story that they tell is not one of becoming teachers together but rather, a perpetuation of the story of the enclosed, contained, rational individual teachers separated by time and place from relationships, as Taguchi (2012) said, of ongoing co-constitutive co-existence. The homogeneity and prominence of the framed photographs also suggests an element of corporate branding as the university demonstrates its value not by the nuanced qualities of its teacher education program and the important role of teacher educators in this program (their photographs are absent) but by the quantity of graduates it sends out into the world each year. Granted, while class photographs only tell a very narrow story of what it means to become teachers through a teacher education program, the familiarity and near-invisibility of these class photographs suggests that they are powerful metaphors for teacher education that require unsettling. As Rousmaniere (2001) writes in her study of historical photographs of schools, “the very commonality and seeming universality of the image of ‘the school’ and ‘the teacher’ should raise questions” (p. 110). I can only hope that the encounter with the images of student teachers performing in the garden installation created the conditions to question and experiment beside the spaces and relationships that characterize teacher education.

Entangled within this knot of student teachers becoming teachers in new and unsettling relationships with place, time, and the thoughts and bodies of previous cohorts of student teachers, is also the curious twist of my own gaze upon their gaze. When I documented the students gazing at the photographs on the blackboard, I was motivated to photograph them largely because I was pleased to see that these students were demonstrating—or performing—their appreciation and engagement with the art installation. However, when I read the one students’ reflection about her disconnection with the previous year’s student teachers’ experiences, another narrative emerged. In addition to simply seeking approval, my photograph remind me that I (the photographer, researcher, teacher educator for this workshop) am at least as deeply invested and implicated in the ways in which we become teachers together as are the students. To add one more gaze upon the meshwork of gazes already present in this métissage, I
am compelled to turn to a personal experience during my own year in a teacher education program in northern Ontario in 2005.

The memory that comes to mind is of my sweating body, struggling to be a teacher during my five-week student teaching practicum. On one particular day while teaching April Raintree (Culleton, 1984; see the following knot for more on this difficult teaching experience), the students were being their rather typical unruly selves and I was flustered but busily engaged in the work to be done in the classroom. At one point I felt observed, and I suddenly noticed the principal’s figure darkening the doorway at the back of the classroom. I had no idea how long she had been there but suddenly I felt utterly exposed and vulnerable to her gaze. I stumbled along with my lesson but never forgot that moment of surveillance and judgment during my teacher education program. It compounded the feelings of isolation and uncertainty that had already caused me such anxiety during my practicum, since beyond a brief introductory welcome and a reminder to our group of entering practicum students to be professional and submit all the required paperwork on time, I had never spoken to the high school principal that was now standing and staring at us through the door of my classroom. In fact, since we never met again, I never learned what impressions the principal had formed of my teaching that day she stood in my doorway, and, although I received the highest praise from my supervising teacher after my practicum, I left my teacher education program haunted by memories of loneliness and failure. While this autobiographical life story is far removed from the particular experiences of the student teachers in this project and certainly not representative of all student teachers’ experiences of teacher education, the sensations of loneliness and failure that haunted my ‘successful’ student teaching experience unexpectedly emerged as central in my doctoral research, even though I initially set out to study becoming teachers *together*.

**Coming together and being alone**

By framing this chapter around the metaphor of the knot, I am participating in a genre of writing within the material or ontological turn often characterized by a fascination with metaphoric entanglements, imbeddedness, imbroglios, knots, and so on (e.g., Green, 2014). However, it may be useful to proceed with some caution in considering where the individual or the singular lies in this call to coming together, since togetherness as an antidote to isolating
individuality may reject one pole of a binary for another equally impossible settlement. As William Pinar (2009) writes so astutely, life is a “solitary journey in the company of others” (p. 43). Furthermore, as Candea (2010) suggests, “[l]iving with’ may mean deep engagement…it may [also] mean cultivating a mutual ‘detachment’ as a mode of interaction’ (as cited in Kirksey & Helmreich, 2010, p. 552). Candea (2010) recognizes that the debate between detachment and entanglement, particularly in discourses around human/animal relationships and scientific research, factory farming, and so on, is highly charged and easily leads to stereotyping and moral dichotomies. In this dichotomy,

detachment (and in some discourses, ‘science’ itself) comes to be associated with coldness and lack of caring, a Cartesian pathology for which engagement (be it political, emotional, or just intersubjective) is presented as the cure. This dichotomy plays out…with accusations of romanticism and cold-heartedness flying about between protagonists who increasingly make each other look like stereotypes. (p. 243)

Negotiating the knots of inter-species entanglements and detachment is a growing field that Kirksey and Helmreich (2010) describe as multispecies ethnography, in which researchers are studying “contact zones where lines separating nature from culture have broken down, where encounters between Homo sapiens and other beings generate mutual ecologies and coproduced niches” (p. 546). While generating mutual ecologies and coproduced niches resonates with the underlying practices and desires of this dissertation, pausing briefly within these knots of detachment/entanglement or individuality/collectivity (both human and more-than-human) is helpful in understanding the various tensions at play in these material-discursive entanglements. It is certainly helpful in considering the complexity and limitations of current theoretical conversations (i.e., material feminist) as well as methodological (i.e., arts-based research drawing on installation art practices) conceptualizations of the relationship between the singular and the multiple when things (teachers, gardens, researchers) come together.

Instead of a romantic, horizontal levelling of difference into an abstract communalism or holism (being ‘at one with nature’ being the most common version of this in environmental discourses), the knots of this installation include rather uncomfortable, frequently solitary experiences of aloneness. The most stark examples of the lack of human community throughout the course of the project can be viewed in the time-lapse photographs of the garden installation,
where only a few fleeting moments suggest human co-presence in the space. A few excerpts from the research journal reveal the feelings of isolation and failure that haunted the entire installation series, yet were particularly faithful companions during the ‘&’ installation in the basement. The first excerpt is from the Threads sown and the final two from the indoor ‘&’ installation:

Being in & part of this installation today also made clear to me why installation artists/critics long so much for their work to be experienced. I want to invite everyone I know to witness this installation—at every moment! Although the camera shapes my experiences of the installation deeply, the photographs themselves are stunning second order performances. Again, this question of am I alone in this space? If there were no other people, would this matter? (Research Journal, July 9, 2012, 7pm)

Again, the slide show begins. So few people in my pictures. Again, I sit in my installation. Three students are in the lounge, two chat quietly. No one has come to me. Empty… I’m feeling overwhelmed and under-something: -appreciated? -supported? -stood? …Lots of self-doubt at the end of this first week…But, I’ve put aside my computer, I’ve finished reading Heinrich’s linen book, my tea is ready…although it seems incongruous to spin flax while I have so much ‘real’ work, that’s what I will do now. Alone. Alone? ~12 noon~ I’m glad that I persisted…not to fear failure. And so I spun – long threads on my beautiful birch drop spindle. And there was pleasure and peace in the work, in the learning….This project is ephemeral, yet there are traces….Although I feel alone & I want this project to be so much more, it sets things in motion that weren’t there before (thought & materials). If the BEd students only come into ‘my space’ to take chairs to eat lunch with their friends, well, so be it. Now. This certainly does not determine the meaning or relevance of this work…Nachträglichkeit. (Research Journal, November 16, 2012, 10:20am at the installation)

Better. Today was better. The students were more curious. I invited a few in, approaching them directly or talking to them when they glanced my way…The first two students I approached this morning were talking about art ed. I said that I’d overheard them talking and that they might want to take a look at my project, that it’s art-related. They said, ‘Yeah, we saw you working and we didn’t want to disturb you.’ Have I created a familiar frame – the ‘closed-door classroom’ that they feel compelled to respect? How to make students feel more welcome? I feel safe…if a bit futile (although not really, my hands are always busy…). (Research Journal, November 19, 2012, 12:45pm in the student lounge)

Although I had purposefully designed the indoor installation to echo the framed walls of Threads sown/grown as well as mark the space for the installation and the daily spinning performances, I had not anticipated that these invisible walls would be so effective in recreating the all-too familiar frame of the classroom with its closed doors and private space for a teacher’s solitary practice (McGregor, 2004). Rather, I intended for the invisible walls (see Figure 19), round table, and four chairs to be invitations to participate in the project. The challenge for me has been to
approach feelings of solitude, aloneness, and isolation as aspects of the knots of coming together, sensations of failures not to be ashamed of but rather to think alongside. There are a number of reasons for what this sense of aloneness and failure might mean for the research project and becoming teachers together, four of which I consider now.

Figure 19 - The frame of the indoor installation, 2012

What about the individual?

Posthumanism, while positioning itself as “post” the humanism of universal human brotherhood and of emancipated, rational, and autonomous individuals, seems to have more to say about universal ‘coming together’ that include the human and the nonhuman than it has to say about what happens to the individual in this new settlement. The very etymology of the word together, so central to this dissertation, suggests that gathering things together is more about sameness than individuality or difference (in German, together is zusammen, a cognate of the
English “same”). The cosmopolitan view put forward by scholars such as Pinar (2009), on the other hand, attempts to retain individual subjectivity in its vision of sociality: “A cosmopolitan education invites an ongoing self-reflection associated with solitude while engaged with others in a world that is not only human and historical” (p. ix). While I am not going to detail the tenets of humanism nor cosmopolitanism here, focusing on how the individual and collective are positioned in contemporary participatory art practices offers a relevant point of entry for this dissertation.

The lively debate between Claire Bishop’s (2012) *Aesthetic hells: Participatory art and the politics of spectatorship* and Grant Kester’s (2011) *The one and the many: Contemporary collaborative art in a global context* are invaluable in furthering my critical understanding of participatory art practices and theory. One insistent thread in Bishop’s work, which positions it at odds with both Kester (2011) and Nicolas Bourriaud’s (2002) *Relational aesthetics*, is its theoretical commitment to difference and individual freedom as possibilities within and emergent from participatory art practices. Bishop (2012) describes two tensions in participatory art. On the one hand are the ameliorative, utopic artists, curators, and critics that see art as a solution to social problems and base their judgments of a project’s value on “a humanist ethics, often inspired by Christianity” (p. 275). On the other hand, “for another sector of artists, curators and critics…art is understood continually to throw established systems of value into question, including questions of morality; devising new languages with which to represent and question social contradiction is more important” (p. 276). In this binary, “either social conscience dominates, or the rights of the individual to question social conscience. Art’s relationship to the social is either underpinned by morality or it is underpinned by freedom” (p. 276). Bishop’s stance in this binary is non-communitarian, non-utopian, and sceptical toward uncritical projects of mass ‘coming together,’ unlike Bourriaud’s (2002) desire for participatory art to invent new ways of being together.

I am also cognizant of Kester’s (2011) challenge to Bishop’s stance, suggesting it conforms to post-structuralist modes of criticism, wherein “the ‘impossibility’ of social cohesion will become a leitmotif of post-structuralist thought. It is precisely when we come together (in collective forms of action and identity) that we are most at risk of succumbing to our instrumentalizing nature” (Kester, 2011, p. 49). These tensions between the singular (symbolic of
individual freedom and/or alienation) and the plural or multiple (symbolic of instrumental or oppressive communalism and/or collective political engagement) return throughout this knotting chapter. Suffice it to say that positioning “the one” in a binary opposition to “the many” is not a politically neutral act, theoretically or methodologically. As a novice academic, a graduate student “becoming scholar,” I attempt to retain the strengths of both views and avoid the paranoia (Sedgwick, 2003) that reinforces binary thinking.

While sitting alone in the basement and spinning flax to linen thread did feel awkward and isolating at times, the ritual performance of spinning (both in the installation space and when I moved into the hallways of the teacher education building), opened up another register of being present that was both fully solitary and profoundly entangled with the life of building (see below for my experience of becoming spider for a more detailed account). Ultimately, my research journal tracks fleeting moments and sensations of both rigidly isolating individuality embedded in a dream of collectivism and openings to a solitary life in the company of others where I no longer felt caught up in possessive desires to draw people/things into the project or control the project’s trajectory. Through materiality, material practices, and movement the one can become knotted with the many, without necessarily a loss of individual subjectivity but a widening sense of self in and of the world. Kester (2011) describes this

as [d]ialogical practices [that] involve the co-presence of bodies in real time. They encourage a heightened awareness of bodily schema—our capacity to orient ourselves in space relative to the world around us—and an increased sensitivity to the process by which our bodies feel, relate, and produce meaning…these groups [e.g., Huit Facettes, Park Fiction, Dialogue, NICA, and Ala Plastica] conceive of site less as a reservoir of formal or representational material that is ready-to-hand, than as a space in which action is constituted and reconstituted on an ongoing basis. (p. 114)

Again, as Bishop (2012) reminds us, the relationship between the individual and collective is not a fixed, moral position but an unsettled exploration into complicated ways to represent and question social contradictions (p. 276). The ethical tension between individual separation and collective human and more-than-human entanglement is one such contradiction that relentlessly shapes and was shaped by this installation series.
Feeling alone in this project has been a useful entry point into understanding what it means to come together in teaching relationships through an arts-based installation with a garden. However, oftentimes these feelings of solitude were combined with acute feelings of uncertainty and worries that the entire project itself would be a failure. Entering into this project as a novice artist, gardener, teacher educator, and researcher has meant struggling to come to terms with the limits of what I know and the practical skills I have to work with particular ideas, materials, and with human and more-than-human others. Constantly coming up against these limitations as an arts-based researcher, teacher, and gardener and the feeling of failure that these limitations provoked was a difficult element of the installation series; however, as a research project, investigating these failings provides insights into the questions of becoming teachers together as well as methodological considerations for arts-based researchers.

Taking risks in this project has continuously meant confronting failure: the flax plants have collapsed! The garden is a mess! No one is coming to the indoor installation! People are watching me! Nobody is watching me spin flax! The garden is being destroyed by developers! And on and on. After explaining to a friend how I was spinning flax in the halls of the teacher education building as part of my research, he asked me, “Do you feel embarrassed?” My response was an ambivalent, “Yes and no.” Le Feuvre (2010), in a collection of essays on failure in contemporary art, suggests that embarrassment is a natural response to failure: you want to disappear when it happens, when the world looks at you and judges you for failing. What though, if being embarrassed is not so bad after all? We all embarrass ourselves frequently, yet it is fear of the judgement of our failures that endures. (p. 17)

I would agree that it certainly was not the act of spinning flax that was embarrassing (spinning was in fact profoundly meditative and calming); however, conducting such a highly visible research project (that ironically felt extremely invisible) made me acutely aware of my fears of judgment and my personal vulnerabilities. There is some consolation to know that this fear of failure and actual failure itself are strongly connected with arts-based processes more generally. As Samuel Beckett famously said, “To be an artist is to fail as no other dare fail” (as cited in Le Feuvre, 2010, p. 12). It is this sense of failure, according to Le Feuvre (2010), that “takes us
beyond assumptions and what we think we know” (p. 12) and what makes arts-based research such a powerful methodology, particularly in education where failure is so deeply tied with memories of schooling and fears that continue to shape the process of becoming teachers.

Schools, students, and teachers all fear failure in a world of standardized testing, teacher accountability, and a deep internalization of the competitive nature of schooling. Halberstam’s (2011) “The Queer Art of Failure dismantles the logic of success and failure with which we currently live. Under certain circumstances failing, losing, forgetting, unmaking, undoing, unbecoming, not knowing may in fact offer more creative, more cooperative, more surprising ways of being in the world” (pp. 2-3). While many educational theorists (e.g., see Moira (2013) for a brief review) are currently embracing failure as a pedagogical technique (in the sense of “learning from our mistakes” or productive failure), Halberstam (2011) takes a more radical stance, suggesting that failure is anarchic and necessary.

In terms of this research and my exploration of what it means to become teachers together with a garden, the positivity that failures might poke holes into (Halberstam, 2011) can include: the certainty that we know what it means to become a teacher; the certainty that we know what a garden is and what and how it teaches; and the methodological certainty of becoming an academic in the ways in which knowledge is produced and disseminated via particular research methodologies. Ultimately, school gardens—including The Orchard Garden—all fail in terms sustaining themselves indefinitely as part of the material landscapes, curriculum, and pedagogies of schooling (elementary, secondary or postsecondary). Failing alongside messy school gardens (actual, experimental or imaginary) disrupts the often unproblematised assumption that we know what schools are, what they are for, how teaching happens inside and outside of schools, and how we should study these complicated spaces.

Blurring the lines between art, pedagogy, and research can open up new ways of knowing and communicating what it means to teach, research, and create art. However, as I am currently focusing on my sense of failure in this project, I question how I became such a central figure in this a/r/tographic knot. Inasmuch as I wanted the project to be about multiple coming together, I often felt like a one-woman show: I built and grew the classroom and installation spaces, taught the classes, conducted the research, and wrote the blog and this dissertation. My centrality in this
research project is in many ways its most significant failure, pointing toward serious limitations within this research. Bishop (2012) turns to the one-man performance of Joseph Beuys to question this tendency in the pedagogical turn in art, since, although Beuys stated that “to be a teacher is my greatest work of art” (p. 243), Bishop (2012) recognizes that Beuy’s commitment to free education was for the most part dependent on his own charismatic leadership, rendering unclear the line between education and one-man performance; today’s artists, by contrast, are less likely to present themselves as the central pedagogic figure. They outsource the work of lecturing and teaching to specialists in the field. (p. 244)

Should this research project around collaborative teaching relationships not have similarly attempted to centre my own role in the research? Or, should I be attending to the possibility that failure is poking holes into the utopic dream of togetherness that underpins this research?

**Failure of setting**

The setting for this research is another thread that complicates this knot of things coming together. For instance, while I sat in the basement installation, I began to wonder why student teachers in general seemed to lack curiosity or the ability to step outside of their comfort zones and engage with the installation. Also, considering that I was unsatisfied with the isolation of the basement location, why did I still feel that I had to get permission to access a space in the teacher education building (a building that is also “my” academic home on the campus of a public institution)? And, once I left the confines of the installation in the basement, what did my responses to acts of guerrilla spinning in the hallways suggest about the failure of the setting, namely, at an increasingly corporate university structure? While exploring the corporatization of education and post-secondary teacher education in particular is not the focus of this research, inhabiting the university as I have throughout this research project (at the garden, in the teacher education building, and even as a campus resident) has frequently meant encountering the material and discursive ways in which capitalism shapes—and limits—educational relationships, particularly with land, as well as the limits of arts-based research methods in responding to these challenges.

Let me return briefly to the student teachers who seemed to studiously avoid acknowledging my presence in the basement lounge. Among other possible explanations, I wondered, how
comfortable are these future teachers in inquiring beyond what they already know? While I spun in the basement installation, I observed how, beyond a cursory glance at the strange new presence in the student lounge (a public space but clearly claimed as the student teachers’ lunch room), most student teachers quickly looked away and rushed to join their group of friends. Should curiosity not be a pre-requisite for being a teacher? But perhaps I had claimed a space that did not belong to me? Or was my installation simply too strange, too inaccessible, too weird to even really “see”? Rebecca Belmore, an Anishinabe artist living in Vancouver, suggests that resistance can be understood as a significant way to engage with a piece of art that challenges conventional understandings of who/what belongs in particular spaces. In her performance piece *Wild*, Belmore occupied a bed in the master bedroom of a Victorian house. Lying naked and sleeping under a red blanket trimmed with long black hair, “Belmore played the role of an unexpected, historically unwelcome guest” (Ritter, 2008, p. 56). In Belmore’s words:

To occupy this bed of history and to have viewers confronted by my presence was interesting. The most extreme reaction to the work was for people to enter and observe the ‘historic beauty’ of the room, discussing all the objects in the rest of the room, while ignoring me in the bed. I then thought that my occupation of the bed worked because it illustrated a denial and an inability to accept the Aboriginal female body in that narrative. (as cited in Ritter, 2008, p. 56)

Belmore’s reflection on *Wild* is helpful, since it offers a useful framework for considering why it might have been difficult for student teachers to “see” me in the student lounge. Houses, like schools, are familiar places—not spaces for impromptu art installations, performances or, more specifically, publicly spinning flax to linen with a drop spindle. Confronted with the unfamiliar (Why is a woman sleeping in this bed? Why is a woman spinning in the basement?), it is easier to protect our coherent, knowing self from embarrassing admissions of not-knowing and ignore what is there, than to enter and engage with an unexpected presence. The setting in the basement of a campus building seem to have played a role in the contextual conditions for interpreting and engaging with the ‘&’ installation and *Threads sown, grown & given* as a whole. However, compared with the fleeting moments of this research²⁶, Jeannie’s more intimate and extensive experience with student teachers in the teacher education program offers additional

---

²⁶ For instance, a research methodology that engaged more directly with student teacher experiences and understandings would strengthen these interpretations and allow for a more nuanced analysis of teacher education more generally; however, this was not within the scope of this research.
interpretations for the students’ lack of engagement with the installation space. Jeannie suggested that the hectic pace of the student teachers’ courses and the passive learning that often occurs within them makes the students very protective of their personal time and spaces to socialize or work. My presence in their lounge may have been seen to interfere with their precious time out of class. Possibly the shift to a one-year teacher education program contributes to this hectic pace, reducing the possibility for long-term experimentation (for teaching and research) and increasing students’ resistance to incursions into their brief moments of unstructured time and space.

More specifically, this setting for the installation series and performances is at a university increasingly moving toward a corporate, neoliberal model of education. As a result of rapidly increasing academic capitalism, Bishop (2012) suggested, “Education is increasingly a financial investment, rather than a creative space of freedom and discovery; a career move, rather than a place of epistemological inquiry for its own sake” (pp. 268-9). From my own experiences as a student teacher (albeit at a different university), I occasionally encountered students who appeared to be more interested in becoming teachers as a career move for teaching’s economic incentives than in inquiring deeply, critically, and transformatively into what it means to become a teacher. During my graduate studies, it also became disconcerting to attend meetings where attracting large class sizes was framed, in part, as an economic strategy to fund programs, teaching, and research by securing student tuition dollars. My encounters with the neoliberal academy were also informed by my years as a student activist at UBC contesting market housing developments on UBC (Musqueam) lands. Inhabiting the university as a graduate student becoming scholar, the links between neoliberalism, colonialism, and patriarchy have been ever apparent. As Berg, Guhman, and Nunn (2014) wrote,

Universities in the space now known as Canada are situated on land stolen from indigenous peoples…. These universities are the embodiment in both practices and actual bricks and mortar of the materialities of gendered social relations as they interlock with, for example, colonialism, racism, ableism and neoliberal capitalism. (p. 68)

The authors continued, highlighting how contesting and challenging these structures reinforces the very individualism that is at the heart of neoliberalism:

27 See my comments in Rodger’s (2012) article in UBC’s student newspaper, The Ubyssey
Acting individually allows scholars to disaffiliate themselves from the neoliberalism of the institution, all the while posing little (if any) threat to the academy, the masculism it supports, or the neoliberal repression and violence reproduced within it. In fact, individuals are precisely what the neoliberal academy wants. (Berg et al., 2014, pp. 66–67)

Berg et al.’s (2014) analyses pointed to my failures to engage participants and to cultivate radical collectivities and togetherness as a symptom of larger relations, structures, materials, and practices that actively resist (even discipline) efforts to transform the oppressive hierarchies and individualism of the academy. My efforts to create cross-species, intergenerational relations of togetherness through *Threads sown, grown & given* are precisely an example of the generative, transformative, and radical research that is tolerated within the enclosures of the neoliberal academy because, at the end of the day, I was alone for much of this work and the threats I pose to the university minimal, simply those of a marginal, flaky, at times passionately bitchy (Moss & McMahon, 2000, as cited in Berg et al., 2014, p. 65) arts-based, garden-based graduate student researcher.

**Alone in the wilderness/garden**

One of the most sustained critiques against environmentalism and environmental education is the concern that these movements reflect the values and desires largely of white, Euro-descendent, middle class men with a longing for pure, authentic wilderness experiences (see Plumwood, 2003). Henry David Thoreau’s (1854/1995) *Walden: or, Life in the woods* is one of the central touchstones in a genre of environmental literature that focuses on self-reliance, simplicity, and romantic longing to connect with nature. The theme of the solitary “man” in nature that Thoreau expounds is common in this tradition, and is often used as a pedagogical technique in environmental or placed-based education courses, wherein students are encouraged to spend time alone in nature and reflect on these experiences (e.g., Cameron, 2003; Strich, 2012). Time alone outside is seen to forge relationships with place and change ones self-understanding. In *Walden*, Thoreau writes about his experiment of living alone (albeit just a few kilometres away from friends and family who came by regularly to visit) for two years in a cabin in the woods at Walden pond. Many of his reflections value solitude: “I never found the companion that was so companionable as solitude,” (p.88) Thoreau writes. It is in Nature that Thoreau finds companionship, purportedly far removed from human communities:
I was suddenly sensible of such sweet and beneficial society in *Nature*, in the very pattering of the drops, and in every sound and sight around my house, an infinite and unaccountable friendliness all at once like an atmosphere sustaining me, as made the fancied advantages of human neighborhood insignificant, and I have never thought of them since. (p. 86, my emphasis)

I introduce Thoreau’s conception of human communion within natural communities as a romantic thread that I resist conceptually with yet recognize as inherent in my personal philosophy and practices of environmental education, as well as a driving force in posthumanist longings for new settlements (Latour, 2004) that include the more-than-human. Spending nearly two years gardening and reflecting on gardening and education is very much in the tradition of Thoreau’s own experimental process of writing *Walden*. However, my explicit interest has been to reconceptualize this Eurocentric notion of Nature (capital N, as Latour (2004) suggests) as a collective of materials and discourses, things and people. As Latour (2004) argues, “political ecology is always manifest, in practice, by the destruction of the idea of nature” (p. 25). Since Nature denies politics, the material feminist and posthumanist conceptions of nature/society upon which I draw are inherently political. Creating human and nonhuman collectives will require carefully thinking through what “together” might mean, what this community, companionship, solidarity, affinity make possible, particularly in education. Unlike in Thoreau’s writing, a multitude of human and human/nonhuman relationships are absolutely central to sustaining my sense of these new settlements, including those of becoming teachers together. Human friends, family, colleagues, strangers are all knotted throughout this work even if—at the garden or in the basement—their absence was particularly noted.

Hannah Arendt (1966) makes a useful series of distinctions between isolation, loneliness, solitude, and being alone that might be helpful here in concluding this difficult knot that explores the lonely, isolated, and solitary moments that took place in a project exploring human and more-than-human coming together. While her work focuses on the origins of totalitarianism, and I in no way am suggesting that coming together is inherently totalitarian, nuanced understandings of the relationship between the individual and the collective by a scholar such as Arendt certainly require consideration. For instance, the solitude that Thoreau (and many place-based environmental educators or theorists) seeks, may in fact create relational engagements with the more-than-human through a form of dialogical two-in-oneness—even with one’s self: “The solitary man…is alone and therefore ‘can be together with himself’… In solitude, in other words,
I am ‘by myself,’ together with my self, and therefore two-in-one, whereas in loneliness I am actually one, deserted by all others” (Arendt, 1966, p. 475). The material world here can be an active interlocutor in these instances of solitude. However, “solitude can become loneliness; this happens when all by myself I am deserted by my own self” (p. 475). Loneliness and isolation are results of being disembedded from human community, both at the private and the public or political spheres:

What we call isolation in the political sphere, is called loneliness in the sphere of social intercourse. Isolation and loneliness are not the same…In isolation, man remains in contact with the world as the human artifice; only when the most elementary form of human creativity, which is the capacity to add something of one’s own to the common world, is destroyed, isolation becomes altogether untenable…But totalitarian domination as a form of government is new [compared with tyranny] in that it is not content with this isolation and destroys private life as well. It bases itself on loneliness, on the experience of not belonging to the world at all, which is among the most radical and desperate experiences of man…Loneliness…is closely connected with uprootedness and superfluousness which have been the curse of the modern masses…To be uprooted means to have no place in the world, recognized and guaranteed by others; to be superfluous means not to belong to the world at all (pp. 464-475)

Arendt (1966) recognizes that these forms of social and private aloneness can in turn change our relationship with the material world:

Even the experience of the materially and sensually given world depends upon my being in contact with other men, upon our common sense which regulates and controls all other senses and without which each of us would be enclosed in his own particularity of sense data which in themselves are unreliable and treacherous. Only because we have common sense, that is only because not one man, but men in the plural inhabit the earth can we trust our immediate sensual experience. (pp. 475-476)

While Arendt’s (1966) humanist political philosophy focuses on the human community and political engagements, she is all-too aware of the relationship between ecological crises and rootlessness, which she describes as a “twofold flight from the earth into the universe and from the world into the self” (Arendt, 1998, p. 6). These flights result in a profound sense of alienation, loneliness and isolation from life. While my experiences in the ‘&’ installation shifted toward feelings of solitude rather than isolation, these struggles nevertheless hint at the difficulties yet also the necessities for human and more-than-human coming together. The following knot continues to linger with the difficulties when humans and the more-than-human
come together in new settlements while still struggling with the old and ongoing dynamics of settler colonialism.

**The shame of difficult knowledge**

In the previous thematic knot, I unravelled how becoming teachers *together* was very much also about being alone, becoming solitary and struggling with the sense of failure that this aloneness brought into this research. Drawing on Pitt and Britzman’s (2003) concept of difficult knowledge, I turn now to instances of difficult knowledge that accompanied the research event associated with the indoor ‘&’ installation. Pitt and Britzman’s (2003) difficult knowledge refers to what “learning means when knowledge references incommensurability, historical trauma, and social breakdowns” (pp. 755-756). The two interrelated questions that they ask are: “What makes knowledge difficult, and what is it to represent and narrate ‘difficult knowledge’?” (p. 755). These questions have relevance for this project insofar as the histories of school gardening compelled me to carefully, yet filled with great uncertainty, engage with, represent, narrate, and knot together difficult knowledge, materials, and discourses in this research. Pitt and Britzman’s (2003) psychoanalytical stance is helpful, since it recognizes the problem of resistance in addition to post-structural work around the crisis of representation and the subject’s narration of experience or self. Ultimately, however, Pitt and Britzman only go so far in providing ways of being and knowing that explore the materiality of living beside our human discursive constructions. Werry and O’Gorman’s (2007) work on performance, affect, and shame, however, “can attune us reflexively to the embodied and relational dynamics of learning process that more discursive modes of analysis are unable to access” (p. 213). Originally written as part of a doctoral seminar in 2012, the following is a piece of autobiographical life writing (Hasebe-Ludt, Chambers & Leggo, 2009) I called ‘Traces of difficult knowledge.’ It sets the stage for encountering difficult knowledge and shame in my experiences of becoming a teacher, and became an important thread that emerged through my collaborations with Jeannie.

*Traces of difficult knowledge*

I am a small child in the back seat of our family car, and my mother is talking about how Indians no longer exist the way we learn about them in school (i.e., they no longer live on
the land in tipis). Did we ask her this question? In my memory, this conversation was reduced to: Indians no longer exist.

During high school, I encountered First Nations people and their issues again through family conversations (white men, including our MPP, verbally attacked a First Nations woman at our Farmers’ Market as a result of a dispute over fishing rights), family trips to pow wows and performances on local reserves, and an elder telling stories in the warmth of a house during a cold school camping trip at the Chippewas of Nawash Unceded First Nations, Neyaashiinigmiing Indian Reserve No. 27 (which we simply called, back then, “Cape Croker”).

In university, I repeatedly returned to First Nations issues, particularly from a feminist lens, in geography classes, a Native Women class taught by a Métis woman (most memorable recollection from that class is starting each day with a smudge), a course on the Haudenosaunee taught by two Haudenosaunee women, and a disappointing First Nations and Addictions course during my teacher education taught by an American Indian (man).

While my experiences in these courses were mostly theoretical, they were perhaps deeper than those of the average Canadian; however, they were utterly insufficient preparation when I was asked as a student teacher to teach a four-week unit on the book April Raintree by my supervising teacher. Two weeks before beginning the class I started reading the novel with a sinking feeling. It was a harsh read, full of difficult knowledge: violence, rape, racism, discrimination, prostitution, suicide, addictions, hopelessness. My emails from the time record me trying to reach out to native education professors in my teacher education program. They were sympathetic but unhelpful (“I had a hard time teaching that book to my adult students. We try to teach through humour…”).

Naïvely, I began my first class with my grade eleven students with a ‘discussion’ on stereotyping. It spiralled out of control. My students, I realized quickly, were much more familiar with the real lives of First Nations people than I was. A number of them were First Nations or Métis, and the rest had grown up with the ‘drunken Indian’ sprawled on the streets of Thunder Bay, Ontario. I was an outsider from the south, my lack of knowledge exposed, my sensitivity to social justice undermined by their racist remarks, my authority as a teacher undermined, and my sense of ‘real’ learning experiences challenged. I stopped the discussion and escaped into the routines of the conventional English class by asking students to open their books, begin reading Chapter 1, and start answering chapter review questions. The rest of the course progressed relatively unremarkably: I avoided group discussions, invited an elder to our class, and—out of fear—did not openly discuss the gang rape scene in the book, although a few students and I did talk about this particular event in a candid side-conversation. My supervising teacher thought I did an excellent job, and his only criticism was that I should emulate his classroom management approach by occasionally sending the rowdier students to the principal’s office. But I had failed, and my knowledge had been useless to me.

When I shared this story of my difficult student teaching experience with Jeannie after our first debriefing interview following her class visit in August, she recognized the situation from Susan Dion’s (2008) work in her book, Braiding Histories. Personally, however, the full
significance of this narrative remains difficult for me to unpack and engage with critically. Even without a rational grasp of this story’s meaning, I have nevertheless been haunted by this particular teaching experience, and sharing the story of my shame (Werry & O’Gorman, 2007) with Jeannie’s second class of student teachers as part of the ‘&’ installation unexpectedly became a significant aspect of this research. As Werry and O’Gorman (2007) write so evocatively, shame is clearly recognizable: the fear of exposure and judgment, withdrawal, the play of humility and authority, seeing and being seen (reddening and being read), self-mortification, self-exposure, self-questioning, penance, and abjection. To speak of shame is shameful: it threatens to negate all good intentions, all the optimism and progressive energy we invest in teaching and learning, to stain the effort of pedagogy with failure, guilt, and self-condemnation. And not surprisingly so. Shame is an affect associated in pedagogy (as elsewhere in western culture) with precisely failure, guilt, and self-condemnation, or worse with the condemnation, stigmatization, or blame of others. (p. 217)

An important aspect of shame, however, in addition to its unsettling disruptions, is that shame is also an experience of connections, intersubjectivity, love, identification, and—surprisingly consistent with my desire for ‘coming together’ in this research—shame can help us “rethink how we wish to live in proximity to others” (Probyn xiv, as cited in Werry & O’Gorman, 2007, p. 217). Sharing these shameful traces of difficult knowledge from my own student teaching experience, therefore, was risky and only tangentially connected to the explicit themes of the installation; however, it tied in with the issues of Indigenous education that the students were studying, and I hoped that a personal story of my own unsettling experiences as a student teacher would create an opening for conversation and relationships during the short time of our coming together for this research.

Similarly to the first workshop at the outdoor installation in August, this second research event was also framed as a workshop. Jeannie felt that additional space and time beyond the regular weekly class structure would help to create richer learning conditions to deepen the students’ understanding of settler colonialism and Indigenous education (while my portion of the workshop was only for the morning, other guest speakers and activities were part of the afternoon’s regularly scheduled class time). One of the challenges for me, which I never entirely confronted directly in preparing this workshop, was the place of settler colonialism in this research and in the workshop. Instead of addressing it head-on with clear learning objectives for
the students, Jeannie felt comfortable with my plan for an eclectic juxtaposition of events and themes. For instance, instead of focusing directly on settler-colonialism, land, and education in the first discussion I initiated to that morning, I had the students recollect a schoolyard from their past, and then discuss what kind of pedagogical relationships this landscape suggests. While the students’ discussion was lively (they were certainly not the quiet students Jeannie had prepared me to expect), reviewing the video recording of the discussion reminded me that neither the students nor I made any explicit connections between the themes of adult supervision/children playing, fences and safety, inside/outside binaries, and limited relationships with land that emerged with issues of settler-colonialism. Our silences, in effect, retold the erasures of Indigeneity and settler colonialism in the Canadian imaginary and landscapes more than words ever could, although I nevertheless wish that I could have identified this lacuna as a teachable moment and spoken about what was missing in our memories of childhood schoolyards:

The schoolyard I remember from my childhood had designated spaces for different ages. Kindergarteners had an enclosed area at the front of the school, juniors & intermediates could play on the grass or pavement at the back. There was no playground equipment, and a lot of the space was taken up by portable classrooms. There were hills we slid down in the winter, but we weren’t supposed to. There was a forest on one side, but a fence separating it from the schoolyard. There were no other trees or plants (the school was built on an old farm). I knew the schoolyard had been farmland, but nothing grew there. Outside was for creativity—there were no toys or equipment, so we had to make up games and activities to play. Teachers supervised at recess but most stayed inside—kids outside, teachers inside. There was a definite disconnect between people and land. (Student teacher, Field Notes, November 20, 2012)

This reflection cited above could have been an effective segue to talk about settler colonialism; however, I missed speaking directly about this issue and mentioned instead in general terms how the design of schoolyards and school gardens in particular was shaped by particular histories, and I used this point to introduce the installation in the basement, and to explain how it sought to inquire into these (unnamed) histories and designs.

When we arrived at the indoor ‘&’ installation, I once again read the poem that I had written about the outdoor classroom and the crumbling walls blurring inside/outside, this time/that time, this place/that place (see Overture). Obliquely (again!), this poem suggests that our relationships with landscapes are profoundly shaped by difficult historical conditions and personal memories. Leaving the poem hanging, uninterpreted, I moved on to explain how the students would move
through the space. Since the installation space was small, only half the students could move through at a time, while the other half could watch the slideshow and touch the improvised handmade drop spindles and flax fibres that Anik Choinière and I handed out. When the groups switched, the first group began writing their reflections in their Field Notes journal. Once both groups had moved through the space and had time to write, we spent ten minutes discussing the themes of the installation. Again, I did not raise the topic of settler-colonialism; however, this is when a student engaged with me very directly about the apparent disconnect between the course, the installation, and my—in her view—uncritical and out of place fascination with flax, a non-Native plant.

I find myself conflicted, how ironic for this to be part of our First Nations/Aboriginal Education component! All those plants, flax, linen, sunflowers, they are all brought and imposed on the land, ‘invader species,’ colonized into the land to support the aesthetic and material wants of settlers. Replacing the indigenous species that support the indigenous fauna. This is a constructed garden designed and imposed, replacing the indigenous plants, and pushing the indigenous flora & fauna to the margins. Irony! Colonized idea of gardens. (Student teacher, Field Notes, November 20, 2012)

My response, a slightly abridged transcription from the video recording, was the following:

Julia: I definitely thought about that when I was doing this. This installation is called *Threads sown, grown & given*. The first phase of it is very critical. If you look at the images on the board, the historical images, there’s Nazi Germany, there’s residential schooling. School gardens have this really long history, especially in Europe but also around the world (I study European/North American history). And often, some of the issues that are problematic in schooling are still replicated in our relationship with land. Whether it is in agriculture or in school gardens, you often have this rigid grid, and you have colonial ideas—the quote from John West [I point to the board as I say this], the founder of a residential school, about using agriculture to civilize Indigenous people to Christianity and to make them sedentary—so that first installation, although I love the plant, is critical. And it’s supposed to bring those themes up: which plants grow here? What is the history of these plants? What are people’s histories alongside those plants? The second part of the project, now that we’ve come inside, is to work with the fibres, and then there’s *Threads given*. Making this thread from the flax [I’m holding my spindle] and making a new installation in the spring that’s supposed to be more like a gift to the garden,

---

28 Anik is a fibre artist that I met through the Urban Weaver and who collaborated with me to figure out how to actually spin flax to linen for the first time and volunteered to help me teach the students teachers at the installation. See her *Fibre Sauvage* blog for more on our collaboration at http://fibresauvage.blogspot.ca/2012/11/flax-to-linen-to-treads-in-garden.html

29 Sunflowers are in fact agricultural plants domesticated in the Americas prior to European colonization. They were often planted in fields with the ‘Three sisters’ (corn, beans, squash).
a gift to the land, a gift to teaching what’s possible. So, looking at, what are the plant relationships, what is the land…[I pause] potentially saying could grow here more sustainably, more respectful to Indigenous plants and people’s knowledge. So, this is kind of the vision of how the project progresses, and so you’re absolutely right, it is a problematic history. But, you know, we are in a state where we are settlers on Indigenous land, so that history is part of who we are. So, it’s not to push it away but to bring it forward in a respectful way.

The student was still uncomfortable, and replied, “But, I was also bringing forward the idea of the environmental aspect of it as well, that it doesn’t support local fauna.”

Julia: That’s true but it’s interesting that flax grows particularly well in this west coast climate. It would be well suited to growing here, more so than other plants. And then, from an ecological perspective, we wear clothing that is made from cotton or synthetic products, which are fossil fuels, so that’s a non-renewable resource. There are all these complications. There’s no clear sense of ‘we should wear this clothing made from this plant, from this place, and we’ll solve all the world problems.’

This exchange, in many ways, was the muddled moment when the themes of the installation and the themes of the course came together.

The student was pushing me to acknowledge that the flax/settler was invasive and destroying the pristine ‘purity’ of the land. Her tone of voice, as she questioned my decision to focus on flax, was critical and aggressive. In fact, Jeannie, in our follow up interview after the class, was disappointed and concerned that the student was being disrespectful to a guest presenter. I, on the other hand, enjoy this kind of direct questioning, and, while I wish that I could respond with similar directness, my own ambivalence and positioning make it difficult for me to be confrontational. Instead, I shared with the students my own ethical dilemmas and the difficult knowledge I encountered through this arts-based research by sowing and growing an installation out of gridded flax plants, this beautiful plant originating at the crossroads between eastern European and western Asia, and now growing on unceded, Musqueam First Nations land. Perhaps had I been the students’ teacher and not a guest lecturer/workshop leader, I would have had the time and relationships to respond to the student more directly. I simply do not know. However, while it is impossible to know how carefully the other students in the class were listening, my hope is that this charged conversation provoked some unsettling reflections for many of the students in the class.
Some of the students’ written reflections in their Field Notes suggest that the difficult history of school gardens and the connection to colonialism that I explore in the installation had made an impression:

The cards that talk about ‘civilizing Indian children’ were what stood out to me. It’s interesting to think about the history of agriculture in connection with First Nations peoples. How it was thought that because they were ‘uncivilized,’ they could learn to garden and be useful is something I didn’t think of. (Student teacher, Field Notes, November 20, 2012)

This made me think about how school gardens have changed over time. The images of what we thought was a residential school meant students were actually working on the farm rather than getting an academic education. The images of the German school garden is reminiscent of Nazi youth training children under a Nazi philosophy. With this interpretation of a school garden it is a fairly negative thing. (Student teacher, Field Notes, November 20, 2012)


I also found the pictures to be very beautiful – the colours and vibrant and create a desirable place to be. I noticed a large contrast between the images on the windows which almost appear prison-like, and the photographs of Julia’s project which were colourful, included people, and had images of people connecting with the landscape. (Student teacher, Field Notes, November 20, 2012, emphasis added)

Notwithstanding these comments (and even embedded within many of them), the pervasive sense of beauty and a connection to land often sits awkwardly alongside—or in complete absence—of a critical analysis. Attracted by the vivid green of the images, the students desire a connection to nature and to connect children to nature, however much the difficult knowledge of school gardening during Nazi Germany and in the Residential school System unsettles these desires. It is this incongruous ability engage in an ethically challenging installation and still persistently long for the very things that I am attempting to unsettle, that amazes me in myself and within the students.

In addition to a participatory activity spinning flax to linen, Debra Sparrow also joined the workshop as a guest speaker. Prior to her talk, Debra participated in the workshop by viewing
the installation alongside the students (see Figure 20), and, although I could not hear their actual conversations, I could tell by the animated circle of students gathered around her that her presence was engaging and contributing to the students’ experiences of the space. After we left the ‘&’ installation, we returned to the classroom and Debra talked for nearly an hour, sharing a métissage of personal narratives about what it means to become a teacher in the context of settler colonialism; how art and academics are not separate activities; Indigenous understandings of knowledge, education and experiences with assimilation and residential schooling; multi-generational family stories (particularly around her grandfather and his experiences of residential
schooling, learning to garden, and later working in his own garden); what it means to be inclusive toward non-Natives and other cultures; the importance of the land, natural materials, natural healing methods, hands-on connections (e.g., with her loom); and her childhood explorations around Musqueam. One of the most insistent themes of her talk was her passionate encouragement that the student teachers learn about themselves (she repeatedly calls upon the students to know who you are/where you come from), respect one’s self and others (particularly children), integrate Aboriginal content in education, and love what you do. However, although she briefly demonstrated how her portable loom worked, showed pictures of traditional weaving materials and patterns, and had samples of other artwork and projects she was working on, the talk was not experiential or dialogical. While the stories lacked the linearity and clear direction of a conventional lecture, Debra’s narratives and teachings came to life through humour, personal memories, family anecdotes, emotions, and they flowed on and on from this remarkable woman—a woman who only went to school until grade seven, whose family history includes traumatic residential school experiences, and who passionately recognizes her role as an artist and teacher. Learning to listen for stories, rather than to stories (Cruikshank, 2005; see also Kerr, 2013, p. 228), however, seemed to be a significant challenge for many of the student teachers.

While the students’ Field Notes reflections suggest that their experiences at the installation and throughout the workshop were connecting to the theme of their course, by the end of the day, Jeannie had received a very frustrated email from a student and it was clear that a number of students in the class were very angry. It turns out that the last guest speaker during the afternoon portion of the class had rather forcefully challenged the students to consider the place of Indigenous spirituality in Indigenous education, and that these provocations were resisted by a number of students. Taken as a whole, therefore, the students were left feeling bewildered and frustrated by a long day without any direct connections to the course ‘learning objectives.’ Jeannie spent the following class reviewing the class syllabus and linking all the themes of the workshop directly to the learning objectives of the course. This remedial activity appeared to appease the students’ anger, although Jeannie herself was profoundly shaken by this teaching experience and wrote about it extensively within her own doctoral dissertation (Kerr, 2013).

Much in the way that Pitt and Britzman (2003) write about resistance, Jeannie reflected on her students’ resistance to engaging with decolonization and Indigenous education:
requiring all teacher candidates to engage with Indigenous perspectives might be seen as actually creating inequitable practices within teacher education according to my own theorization, through imposing a particular agenda and desired set of outcomes. Further, it may seem that teacher candidates are positioned as instrumental to achieving some future imagined goal of social equity that I am entertaining. In essence, I ask this question: Might it be possible that the teacher candidates’ resistance I have described is a logical response to an unethical demand on my part to engage questions for my purposes and commitments and not their own? (Kerr, 2013, p. 227)

While ultimately recognizing the need for required courses on Indigenous education in teacher education, Jeannie’s response to these difficult moments led to some self-reflexive work throughout her own dissertation writing and a shift in her own teaching approaches. In her second year of teaching Indigenous education with a new cohort of students, Jeannie says that she has significantly changed her approach. She follows Haig-Brown’s decolonizing autobiographic writing approach, she experiments with Musqueam Elder Larry Grant (see Kerr, 2013, p. 232) and Ann Chinnery’s (2010) recommendation to teach critical historical consciousness via analyses of actual historical colonial documents, she positions herself much more overtly as a settler uncertain about her own teaching, and—most importantly—she makes every possible effort to build relationships with her students.

Becoming teachers together through participating in the ‘&’ installation in the basement, certainly unsettled Jeannie and my own understandings of the times and places for teaching difficult knowledge, and, as the students’ vociferous response to the workshop suggests, disrupted the student teachers’ sense of appropriate teaching methods, appropriate teaching content, and appropriate teaching bodies. However, the resistance we encountered in the workshop is significant, and I wonder if our understanding of participation in classrooms and installation art requires revision. For instance, I question now whether the indoor ‘&’ installation operated from what Kester (2011) and Sedgwick (2003) critique as a “revelatory gesture.” As such, my longing for ‘coming together’ loses its comfortable flatness and returns to the enclosures of asymmetrical hierarchies due to presumptions that the viewers/participants (i.e., the student teachers) are naïve and will attain consciousness or enlightenment through pre-conceived experiences generated by an artist/educator (see Kester, 2011, p. 103). Inquiring into the ways in which the student teachers’ participation was limited and framed by this arts-based research also raises more general questions about student teachers’ participation in their teacher education program and learning more generally, the place of consent in education (Simpson, 2014), and the
fragmented relationships between students and their teachers in formal learning environments and even within this research. While I cannot respond to these emerging questions directly—and I cannot change the past by wishing I had conducted this installation art-based research project differently (for instance, by developing closer relationships with a smaller group of student teachers over a longer period of time)—exploring the instances of difficult knowledge in this knot has been generative even in its most unsettling moments when resistance has pulled the knots too tight for comfort. Moreover, spinning flax to linen thread was an experience of participating with materials that seemed different from the push and pull that structured participating with discourses of difficult knowledge within the frame of the indoor installation. By becoming spider for fleeting moments while spinning thread, new material-discursive possibilities for becoming teachers together opened up.

**Spinning threads and becoming spiders together**

I feel like a spider in her web, sitting here spinning, catching ideas, people, materials in this project. I love sitting here and being able to point to all the parts of this project gathered close around me. (Research Journal, November 22, 2012, 12 noon at the installation)

As the spider spins its threads, every subject spins his relations to certain characters of the things around him, and weaves them into a firm web which carries his existence (von Uexküll, as cited in Ingold, 2000, p. 174)

In this final knot, I suggest that material and discursive coming togethers are much more complex, magical, and mysterious than possibly imaginable. The rather magical human and nonhuman threads that are tangled in this particular knot are the spider becomings that emerged as I—and other research participants—learned to spin flax to linen using drop spindles, and then subsequently spun these linen threads into memory webs at the garden. In this knot, I recognize that language, making, ritual, relationships with plants and animals, and creativity are vital threads for becoming teachers together.

I didn’t speak to anyone this morning, although thoughts slid smoothly through me as I spun a large cop of under-retted linen thread. I do feel like a fat spider in her web. In fact, as I was wrapping up my materials, I considered how my presence affects the mood of this building. Just knowing that Julia is in the basement spinning—does that bring a sense of calm and well-being to the inhabitants of this building? What about ‘not knowing’ that I am here? As esoteric and unlikely as this seems, these were my thoughts. And they resonate with the highly unlikely propositions of the fellow who presented at the
International Sustainability Conference about how a group of people meditating changed Washington into a safer, happier, more prosperous place. I was highly skeptical then, and probably still am. Nevertheless, I’d like to believe (and sense it regardless of my beliefs) that a woman spinning peacefully in the basement exudes a general sense of well-being. It all comes down to—magic? Oh, how unlikely. (Research Journal, November 23, 2012, noon at the installation)

Most significant—Jeannie’s presence. We spun a web together. Two people make one 8-legged spider. The linen thread for our web came from the students’ spinning during Jeannie’s class in November at the indoor installation. The leftover bits that I spun are the radial threads, and the spiral that Jeannie created are the students’ actual first attempts. It’s rough, uneven, and the loose fibres stream in the wind. Jeannie was engrossed and particular. She spun the entire spool of student thread, feeling like a spider with her

Figure 21 - Jeannie’s garden reflection for our collaboratively spun memory web, Threads given, 2013
spinnerets when she placed the spool of thread in her back pocket and felt it coming out of her own body. (Research Journal, March 9, 2013, 3pm on back patio in the sun)

In Jeannie’s memory web (see Figure 21), she caught a strange sensation: magical mystery. Magic is also the word I used in my research journal when I reflected on what it felt like to become a spider, peacefully spinning in the basement of the teacher education building. In this strange concluding knot of an altogether unruly chapter, I turn to experiences of becoming spiders together through the very material practice (Ingold, 2013) of spinning flax to linen thread. A turn toward magic may seem unlikely in this inquiry and will not be the focus of this section per se; however, I hope you can suspend disbelief for a few pages and imagine what becoming spiders (or other animals or even plants!) together might mean for becoming teachers.

The etymological relationship between spinning and spiders ought to have been apparent for a German-speaker like myself; however, I certainly did not start this project with any inkling that spiders or spider webs would figure prominently in my work. In German, the word for spider is Spinne, which is also a word used to describe someone who is crazy, in the sense of “Du spinnst!”, which literally means, “You’re spinning!” In the English words spin and spindle, it is easy to see the spiders (i.e., Spinnen) that still inhabit the word and material practices of spinning. Spinning and spiders are also closely related to the increasingly obsolete English word spinster, an unwed woman also frequently associated with a degree of craziness and, oddly appropriate for this dissertation, the spinster teacher stereotype that still haunts popular perceptions of teachers (e.g., in children’s literature, the teacher on The magic school bus figures a seemingly childless, unmarried, frizzy red-headed woman who magically travels outside of material-discursive bounds). The centrality of animality in human spinning and textile art more generally only became apparent once my own spinning technique improved significantly. At that moment, I increasingly sensed an embodied awareness of how human textile practices are deeply entangled with the animal world, in language, and in making. Too often, we bemoan our lack of relationships with the natural world, and yet, through spinning, I had practiced my way into an utterly fresh understanding of the material-discursive power already present within familiar words: spinning, spider, Spinne, spinster. Imbued with new meaning, metaphors like the web to

---

30 I would like to thank Diane Nelson for noting the connection between spider and spinster (pers. comm. March 12, 2014)
describe narrative story-lines, interconnections, relationships, and many of the core ideas in environmental thought felt fresh and significant for the first time. While the “web of life” may be one of the most pervasive clichés of environmentalism, the oddly peaceful and magical experience of spinning and feeling like I was becoming a spider nevertheless compelled me to collaboratively spin linen webs with memory bundles trapped within them for Threads given with another group of student teachers.

The student teachers who participated in the research event at the basement installation were also very excited about their experience spinning flax to linen. Learning to spin on handmade drop spindles (chopsticks fitted with a metal hook and roughly round Santa Claus erasers as whorls) and with rough fibres is not easy, and yet, working collaboratively the students all managed to spin thread. Since there were not enough spindles for each student, they worked in groups and even figured out adaptations to the technique Anik Choinière and I demonstrated so that the spinning exercise also became a community-building activity. While none of them expressed feeling like spiders, the material, practical, and collaborative experience was clearly exciting for the students and connected them bodily with the installation.

When we tried to spin flax fibres we feel a sense of teamwork and it utilizes our problem-solving skills. We worked together and created a long thread with fibres/a sense of achievement. (Student teacher, Field Notes, November 20, 2012)

I enjoyed feeling and working with the flax fibres. I found I was able to connect more with the project by actually seeing and feeling the materials. Trying to spin the fibres was challenging, but a good learning experience. I found it meaningful that it’s a practice that adults and children around the world do. I like that it connected me to people in other countries and cultures. (Student teacher, Field Notes, November 20, 2012)

It kinda felt awkward. I think because it felt like performing with others watching me. Watching others do it is very calming. Flaxing is relaxing. (Student teacher, Field Notes, November 20, 2012)

The third quote amuses me. It seems like a wonderful metaphor for learning to teach: how awkward we feel doing something unfamiliar and difficult, how physical this activity is, how vulnerable and exposed we feel when we recognize that our bodies and movements are being seen (and seemingly judged) by others, and how we attempt to perform for them. And yet, watching a skilled teacher moving at ease through a classroom can be relaxing. In terms of my own feelings of awkwardness as I navigated the unfamiliar performance spaces of teaching and
researching with an unfamiliar arts-based research framework, I can most certainly empathize with this student’s sense of vulnerability and exposure.

As the second quote above suggests, spinning engaged the students materially with the project. According to Ingold (2013), there is a correspondence that takes place between materials and makers during the act of making. Ingold (2013) explored this correspondence through a similar activity to spinning—namely making string with a group of students by twining fibre using only your hands. Through making, Ingold (2013) writes, his students learned about how the hands get to know materials or acquire a ‘feel’ for them; about how they impart a rhythm to these materials in the iteration of their own movements, and how the materials, in turn, carry a memory of their manipulation; about how the forces and energies bound into the materials through these gestural movements hold them together. (p. 118)

While I worry about tendencies to romanticize in suggesting that threads literally carry memories in the way Ingold imagines, cultural narratives from around the world abound in the metaphors of narrative threads carrying stories from the past into the present. This imaginary certainly influenced my interest in calling the project Threads sown, grown & given, since I wanted both a material and a metaphor that would carry memory (particularly difficult historical memories) forward. Ingold (2013) suggests that “the string retains a complete and unflinching record of the gestures that went into its formation. Nothing escapes it…there is memory in a length of string…and to remember is to rewind it” (p. 121). Enamoured by the possibility that thread has a memory, all the cops of linen that I and the participants at the installation spun were carefully labelled, although this compulsive academic habit somewhat diminishes the romantic undertones of material memory.

Academic habits and teaching practices can become routines or even rituals, which is certainly how the performative aspect of the basement installation felt after three weeks of repeatedly occupying the same space, at the same time, and busying myself by working with the same spindle and flax fibres. After each morning’s spinning, I carefully labelled my work, pinned it to the board (see Figure 22), and wrote in my research journal. Like much process-oriented work, life as a doctoral student can feel amorphous and unstructured, since much of the work is self-directed and peripheral to formal institutional structures. By setting this frame, as
my spinning improved this repetitive research act grew into a generative ritual space to engage in activities beside the ‘normal’ flows of necessary, productive or acceptable research labour.

Frédérique Apffel-Marglin (2011) describes ritual as “collective actions engaging humans, non-humans and other-than-humans31 for the purpose of generating and regenerating continuity and a liveable common place” (p. 150). Moreover, rituals are “the medium for communicating, reciprocating, creating, and working with the other-than-humans, who daily remind the humans that the world is not for human’s exclusive use” (p. 6). Apffel-Marglin’s (2011) interest in ritual emerges out of decades of work with Indigenous Andean and Indian communities; however, recent scholarship in feminist science studies—particularly that of Karen Barad—has generated language and methodological framing to help her understand how rituals creatively enact the

![Image of spinning cops of linen](image.png)

Figure 22 - Spinning cops of linen for the blackboard at the ‘&’ installation

---

31 Other-than-humans, according to Apffel-Marglin (2011), are lively aspects of the landscape that are both human and non-human
world. For instance, instead of viewing rituals as prescientific, primitive or inexplicable ‘magic’ (the prevalent discourse in much colonial anthropology), Apffel-Marglin draws on science studies to understand how non-representationalism and different “acts of observation” precipitate different realities (Apffel-Marglin, 2011, p. 15; see also Law, 2004, for a similar understanding of methods as not just describing social realities but also helping to create them). In terms of this research, creating the space for ritual-like activities resisted rational, efficiency-based research methodologies and allowed me to labour and think otherwise.

Ritual activity, Apffel-Marglin (2011) is clear to point out, is not just patterned, repeated activities. When the three weeks that I had set aside to spin flax to linen came to an end, I was at loose ends, missing the ritual activity of spinning in the basement. While spinning had become a significant routine, the time and space of spinning was also a way to focus my attention:

What separates out ritual action from everyday action is that in the former, the patterning of actions is designed to focus awareness so as to synchronize the awareness of the different participants—humans, non-humans, and other-than-humans—enabling them to weave each other into a continuous world, a regenerated world. (Apffel-Marglin, 2011, p. 164)

While the rather solitary quality of spinning in the basement may contradict what Apffel-Marglin emphasizes as the communal nature of ritual activities, the sense that I describe in the opening quote from my research journal, “that a woman spinning peacefully in the basement exudes a general sense of well-being” certainly describes a participatory sense of weaving various communities—human and nonhuman—into a liveable world.

A liveable world that includes and is co-constituted by nonhuman (animal, plant, nonliving) “things” is difficult for western philosophy and western education to consider. As Latour (2004) writes, “we [sic] Westerners are the odd ones, we who have been living up to now in the strange belief that we had to separate ‘things’ on the one hand and ‘persons’ on the other into two distinct collectives; according to two incommensurable forms of collection” (p. 45). School, for instance, remains structured around a progress narrative in which children are civilized out of their animality and become fully human adults (Timmerman & Ostertag, 2011). However, as Grosz (2011) wrote, “The animal has returned to haunt the conceptual aura of the humanities, those disciplines that have affirmed and even constituted themselves as beyond the animal” (p. 12). In asking, “How do we become teachers together?” I am extending Grosz’ (2011) insights
into the need for intellectual revolution in the humanities (a humanities that is in continuity with animality and the nonhuman) to educational relationships and teaching. As the language and ritual practices associated with spinning in this research suggest, methodologically and theoretically creating the space to become a spider has allowed me to creatively reconsider my own affiliations with the nonhuman. Susan McHugh (2011) writes, “‘becoming-animal’ stories might be seen as key points of ethical negotiation across artistic and scientific models of species and social life” (p. 14). Since this project is situated in a garden, becoming plant stories can also enter the stories we tell of “things” and “people” in the new settlements Latour (2004) imagines.

Inasmuch as spiders shifted my attention to the nonhuman or—more precisely—into becoming nonhuman, this research project begins and ends with plants playing critical, active, and creative roles. Beginning with flax’s seductions, a beguiling yet unfamiliar plant growing in The Orchard Garden, and ending with the rhizomatic, chaotic, and regenerative possibilities of fireweed, as Laura Mark (2013) and Grosz (2011) illustrate, plants and animals are clearly profoundly conjoined in our human perceptions. As Mark (2013) discusses, human animals experience beauty because plants and nonhuman animals experience (or prehend) beauty and it is plants in particular that create the world for us. An emerging field of critical plant studies acknowledges that plants—even more so than animals—have long been placed at the opposite pole of human exceptionalism due to their perceived lack of autonomy, individuality, self-identity, originality, and essentiality (L’Abbè, 2013). However, critical plant studies, ethnobotany, science and technology studies, and anthropology are all beginning to recognize that plants are social beings with agentive efficacy (Kirksey and Helmreich, 2010, p. 254). What if education also considered these possibilities? In this sense, a garden becoming a teacher and a teacher becoming a garden no longer seems simply impossible or merely romantic but an acknowledgement of something that is profoundly threaded into our experiences in and of the world.

While I remain hesitant to use this language, I do feel that pedagogical encounters through the practices of making have shifted spindles and spiders from being ‘objects’ to becoming teachers who have shaped this research project. However, the uncritical language that I have used to talk about experiences of spinning and becoming spiders reminds me that a careful deconstruction of the discursive threads I have been working with to explore the possibilities for
becoming spiders is sorely lacking in this knot. For instance, I have not adequately heeded Haraway’s (2004) rejection of the spiderwoman or goddess figures due to the need to be cautious and conscious of the risks of white feminist appropriations (p. 329) of Indigenous ways of knowing and being. The need for caution extends beyond misappropriating the figure of the spider, for the spindle itself is also a cultural, spiritual, and political figure in various contexts, including that of the Musqueam First Nations where I have written, researched, gardened, and spun the threads of this dissertation. Coming to spindles ahistorically as I have in this project, I can only marvel at the ways in which spindles entwine people, plants, animals, and spiritualities around the world; however, I recognize that I have only just begun the decolonizing work to understand and participate in the stories of spindles and spinning without perpetuating colonial appropriations. What this brief return to more socially constructed discourses suggests is that, instead of representing this project as a hybrid onto-epistemology which is both material and discursive simultaneously, I present these as a meshwork (Ingold, 2013) in which I vacillate from one to the other, oftentimes in quick succession. These are the material-discursive threads that I (an I that includes spiders, student teachers, silent basements, busy hallways, flax, spindles and other human and nonhuman collaborators) have spun and knotted in this chapter, resolutely separate yet twisted together in ways both destructive and generative.
Chapter 5 – Threads grown: An unruly metaphor for becoming teachers together

We eat from the land
To nourish our bodies…
Learning in the classroom to nourish our minds…
To learn is to grow
To grow is to learn…
Harvesting
(Student teachers, collaborative writing at Threads grown, August 2, 2012)

It took three student teachers precisely two minutes and seventeen seconds to conceive of this charming poem. After moving through the installation Threads grown at The Orchard Garden, the three young women sat on the curb with their backs to the garden, facing the parking lot, to write. The digital audio recording device one of the women held in her hands recorded how quickly, effortlessly, and without debate the words flowed out of their mouths and onto the page. The work was so easy, in fact, that the students had plenty of time to chat while other groups continued to prepare more elaborate reflections, performances or worked in the garden. How is it that powerful metaphors and material practices linking gardens and education through eating and growing can so easily, so unthinkingly, be reduced to simple clichés? As Arendt (1958) cautions, “‘clichés, stock phrases, adherence to conventional, standardized codes of expression and conduct’ have ‘the socially recognized function of protecting us against reality, that is, against the claim on our thinking attention that all events and facts make by virtue of their existence’”(p. 4, as cited in Irwin & O’Donoghue, 2012, p. 233). It is precisely because of the disarming ease with which the metaphor of growth enters educational thought that this chapter tries very carefully to “think what we are doing” (Arendt, 1998, p. 5) when we use garden metaphors in education. It will take me much longer that two minutes and 17 seconds to do this work, and will require going down some difficult garden paths, since where life grows and is grown, there is also always degeneration and death (Butler, 2010, p. 14).

To focus on growth in this chapter is to explore ways of describing and experiencing how newness comes to life and all its myriad material and discursive relationships. However, the growth that will be at the centre of this exploration is not a naïve sense of anything is possible.
Rather, growing is also related with ‘to be grown,’ an awkward passive construction at the core of the entire installation series title, *Threads sown, grown & given*. If something new (threads, children, students, teachers, gardens, ideas) is to *grow* it must also *be grown* (or sown or given). While this raises difficult questions concerning authorship determining what or who grows/is the grower, the focus here is on the relationship between these intertwined beings and what emerges out of this relationship that is different or new.

In this sense of growing/to be grown, Jackson and Mazzei’s (2012) description of Deleuze and Guattari’s concept of becoming is particularly helpful, since, “the *becoming* is in the relationship between the wasp and the orchid. The becoming is the something else, the newness that is created. *Becoming* is the movement through a unique event that produces experimentation and change” (p. 97). By using the passive construction, “to be grown,” the identity and autonomy of an acting agent, such as “the teacher” or “the gardener” is obscured, and from within this ambivalence are possibilities for reconsidering how we become teachers together. Furthermore, retained in this understanding of growth is Butler’s (as cited in Jackson & Mazzei, 2012,) paradox of agency:

If I have any agency, it is opened up by the fact that I am constituted by a social world I never chose. That my agency is riven with paradox does not mean it is impossible. It means only that paradox is the *condition* of its possibility. (p. 77)

Growing a garden as a site-specific installation to explore what it means to become teachers together is abundant with growth and new beginnings that emerge from social and ecological conditions that exist outside and prior to my work as a researcher, gardener, and teacher. However, within these constraints, growth nevertheless happens. This dissertation is just one outcome of that growth, experimentation, and change.

For a gardener, growing plants can be a delicate dance caught in the movements between life and death, freedom and control, abundance and scarcity. The long history of educational theory linking gardens and education suggests that growing plants and educating children confronts similar challenges. As Tim Ingold (2000) suggests, “growing plants and raising animals are not so different, in principle, from bringing up children” (p. 86). This view of growth and educating children is similar to Hannah Arendt’s (1998), since it recognizes the newness or natality that each life brings into the world: “the new beginning inherent in birth can make itself felt in the
world only because the newcomer possesses the capacity of beginning something anew, that is, of acting. In this sense of initiative, an element of action, and therefore of natality, is inherent in all human activities” (p. 9). However, inasmuch as Arendt (1998) recognizes the ways in which natality brings newness into the world, like Butler above, she is fully aware that humans are conditioned and conditioning beings. Ingold (2000), however, more explicitly extends Arendt’s humanist “common world” to a single continuous field of relationships between all living things:

> we can no longer think of humans as inhabiting a social world of their own, over and above the world of nature in which the lives of all other living things are contained. Rather, both humans and the animals and plants on which they depend for a livelihood must be regarded as fellow participants in the same world, a world that is at once social and natural. (p. 87)

In this contained garden of our common world, growing plants and educating children are unfolding, dynamic, fluid relationships and processes of becoming, not so far off from the words of the student teachers reflecting on their experiences in the garden: “To learn is to grow/To grow is to learn.”

The difference between the focus of this chapter and the students’ poem, perhaps, lies in the student teachers’ focus on learning. In this dissertation, I am focusing on what it means to become teachers together and explicitly on the ethical relationships that teaching—particularly in relationship with land—demands. Again, turning to Ingold (2000), growing (or teaching) requires attending to the “ways in which human beings involve themselves in establishing conditions for growth” (Ingold, 2000, p. 86). In Threads grown, the conditions for growth that I set as a gardener were avowedly unethical and challenging. The student teachers, encountering a rigid grid of flax plants in the installation—the particular conditions for our becoming teachers together—were forced to confront the impossibilities of freedom and control in growing plants and teaching, and the ways in which growing plants, raising children, and teaching all create possibilities for instrumentality and social/ecological engineering. Freedom and constraint became one of the prevailing binaries that we discussed while in the garden, and the students’ Field Notes and my audio recordings of their conversations at the garden reverberate with the difficult tensions inherent in both teaching and gardening.

Considering growth in relation to freedom and constraint in both gardening and becoming teachers is the first thread that I explore in this chapter, which draws on notions of natality,
becoming, hospitality, and creativity as ways of teaching beside this difficult binary. Following this, the second thread relates to a core cliché that drives this dissertation and is related to the theme of growth, namely that of the garden-as-teacher and its more common opposite, the teacher-as-gardener. Environmental educators have long been fascinated and committed to creating conditions wherein land becomes a teacher, a concept frequently gleaned from Indigenous teachings. However, how does land teach? What is made im/possible by material discursive practices wherein gardens are conceived as teachers? Gardens, as boundary spaces between the highly fraught notions of ‘wild’ and ‘civilized,’ are particularly challenging spaces through which humans can learn from the land, although also potentially reconceptualizing our understanding of land or nature and teachers along the way. The third thread turns to methodological considerations for ‘growing research’ by drawing on arts-based research methods and theories as well as gardening practices. Not only metaphoric growth but materially growing a garden as a site-specific installation can be a powerful approach for arts-based researchers, particularly in environmental education. A methodology of growing a research project, both the material performances of the installation series as well as the process of writing this dissertation, can be understood as an experimental process that ‘grows’ stories rather than collects, analyzes, and synthesizes data. Finally, I conclude the chapter by acknowledging that limitless growth is the predominant metaphor of global capitalism, one based on discursive and material realities of both abundance and scarcity. As such, threads of death and decay are brought into the conversation to remind us of the limits of growth and the necessity for mourning within the Anthropocene.

Before entering into these explorations, however, I will briefly introduce Threads grown, the phase of the installation series in August 2012. In Threads grown, the gridded classroom of flax desks—24 student desks and one larger teacher’s desk—that I had sown in the spring (see Threads sown) was growing, blooming, ripening, and harvested. As with all aspects of this multi-stage, site-specific installation art project, there is no clear distinction between one phase and another, although the seasonal shifts from spring to summer mark the shift from Threads sown to Threads grown. In this chapter, I focus largely on the first research event in the garden with Jeannie Kerr’s teacher education students enrolled in an elective course during their final semester of becoming teachers at UBC. On August 2, 2012, at a time of growth and abundance
in the garden, Jeannie and a group of around 20 student teachers spent a morning at the installation and in The Orchard Garden. I had met the students a few weeks previously to introduce the project, review research ethics requirements and consent, and to talk about their understandings of and relationships with ‘nature.’

In the days leading up to the research event, I was busy putting the final touches on the installation itself, since I had not yet hung the four window frames on the walls of the classroom. Preparing the windows involved buying wood, canvas, acrylic transfer gel, printing photos, building wooden window frames, and painstakingly transferring the photographs onto the canvas. On the morning of the class visit I went to the garden and hung up the windows, then I rushed off to meet the student teachers at the teacher education building. It was a grey morning with a slight chance of rain but as the day progressed the sun came out and the sky cleared. I welcomed the students into the garden at the old apple tree, just as we welcomed all visitors into the garden, by talking about the history of this land and the work we do at The Orchard Garden. Finally, I rather nervous read the Overture poem (see p. xii) to set the tone of arts-based experimentation and exploration. We then entered the classroom installation space, each student carrying a clipboard for their Field Notes. Like many initial teachers planning a new lesson with unfamiliar students, I had a detailed plan for the morning, which, as with most lesson plans, provided a useful framework—particularly to help me and Jeannie prepare the morning and to orient the student gardeners from The Orchard Garden team that were assisting with photography, filming, and garden work—but was not rigidly implemented.

Holding familiar objects—a clipboard, a notebook—in a space with an all-too familiar geometry made the classroom installation, and its themes of freedom and control, easily accessible to the students. I was surprised, however, with the way one student quickly became an expert in the garden, sharing her plant knowledge of edible weeds with her curious and attentive peers. Her plant knowledge came from life on farms in China but, in the particular context of the

32 The two windows on the eastern wall depicted school gardening in Germany, one prior to the Nazi era (including a drawing of Friedrich Fröbel) and the second during (this window included an image of the Dresden “Reichsgartenschau” in 1936). The two windows on the western wall were of North American school gardening, one window depicted images of gardens at residential schools (including a image of boys and girls neatly lined up outside the school and in front of the orderly rows of the school garden) and the second of school gardening initiatives throughout North America more generally (including an image of 'Uncle Sam' leading children to join the U.S. School Garden Army).
garden, she had something to share and her peers listened eagerly. Recognizing lambs quarters in the desks, she described to the students that ‘white people’ call these plants ‘weeds’ but in China they are gathered as an edible plant. In her Field Notes, she moved effortlessly between plants and people, explaining the commonalities between weeding and schooling:

Selection value:
-one being selected, others eliminated
-what is the value we put on our students if we show our favouritism over one type of quality over the other.
-e.g., We teach to think that ‘good’ students are those who fit the criteria we set, the ones who love learning, behaving, etc.
-school systems seem to eliminate the ‘weeds’
-How and who to decide which one is the weed? (Student teacher, Field Notes, August 2, 2012)

Figure 23 - Gently containing/braiding the flax desks, *Threads grown* research event, August 2, 2012 [Photo credit: Chessa Adsit-Morris]

While the students moved through the space, some of them noticed that I had experimented with tying up the flax plants at the edges of some of the desks, and a couple, including the instructor, started to tidy up the messier desks (see Figure 23). As we gathered to share our impressions of
the installation, I recounted my struggles in the weeks prior to the class visits when summer
storms pushed down the delicate flax plants, splaying open the desks and collapsing the long
plants into adjacent desks and into the aisles. My dilemma was in deciding whether or not to
leave the desks messy, tie them up or stake them to retain the orderly grid, and that I had decided
(for the most part) to leave things alone, excepting the few desks where I gently braided the flax
strands.

After spending around 45 minutes in the installation space, the student teachers were invited
to join our student gardening team to work in the garden to harvest vegetables for our
Community Supported Agriculture boxes. We then returned to the installation to talk about the
final activity, which was to give something back to the garden and The Orchard Garden project.
The students self-selected their groups and spread throughout the garden to create their gifts.
Each group had an audio recorder so that I could later listen to their conversations. While the
students worked, I circulated throughout the garden talking with each of the groups, checking
how they were doing, answering questions, providing direction as necessary. After half an hour,
we reconvened, and each group shared its gift. The ‘Lovely, loving weeders’ group talked about
how their gift of weeding resulted in surprising and unsettling encounters with weeds that were
not weeds amidst beans and corn growing without rows in a little Mayan Garden just outside the
classroom installation. Five women brought the installation space to life with a performance of
freedom and constraint in teaching (see following section), which the rest of us watched from
outside the walls of the classroom. The ‘Parking lot poets’ read ‘Harvesting,’ the poem that
opened this chapter. Although I found it superficial and clichéd, it did lead to a long discussion
around respectful relationships with land and people and practical aspects of gardens and food in
education. Finally, three men suggested how the second phase of the installation might connect
the gardens to different areas of the curriculum. They gave a rough sketch of planting a garden
with the same classroom design but integrating different plants (not just a flax monoculture) that
children could bring in, suggesting a multicultural approach to recognizing the diversity and
different dynamics in a classroom of individuals. For students who wanted to stay for lunch, we
prepared a large salad with the “weeds” collected by the ‘Lovely, loving weeders’ group and sat
together at the picnic tables in the shade of the old apple tree.
When the research event ended, I realized with a jolt just how much teaching, gardens, and research are all ephemeral, momentary assemblages of people, things, and thoughts. The threads that come together quickly dissipate, and it is nearly impossible to grasp what happened during those fleeting instances of the event itself. Following the event, I wrote in my research journal: “To have/lost a research event. One chance…Each moment matters, yet each is different, then it passes. Teaching/researching in moments” (August 2, 2012, the garden, 2:30pm). Consistent with all site-specific installations and performances, the art encounter was relational and tied to a particular time and place. As a research and teaching event, it was also ephemeral even though I have memories, photographs, and Field Notes as documentation to help frame particular narratives of particular moments during that morning in the garden; however, I can never truly know what grew out of this event and it will never be possible to replicate it again. One feeling that I do recall, however, is that working with the student teachers in the garden that morning brought the installation to life; for me, the space resonated with a sense of purpose and meaning that my time alone preparing the site and setting the conditions for the research seemed to lack. The next time where I really felt that the installation Threads grown had “come together” was at the end of the summer, when students from the garden team and I harvested the flax and stooked the sheaves into piles to dry on top of the desks. While the focus was not the human students in the space, the little stooks had a distinctly human form, and the larger teacher stook at the front of the classroom had that familiar, frazzled air of someone at the end of a long day in front of the classroom.

**Student teachers performing freedom and control**

a feeling of juxtaposition between confinement and freedom, the plants were geometrically organized in their set positions but they grew long and free in their places. (Student teacher, Field Notes, August 2, 2012)

As Britzman (2003) writes, we grow up in schools. Conversely, one could also say that the enclosures of schools and classrooms, including the work of teachers, grow us. With the globalization and proliferation of the western model of schooling and its increasingly ubiquitous equation with education in all human communities, schools grow into us all, becoming a part of

---

33 See my August 16, 2012 blog post (Ostertag, 2012)
who we are. While Ingold (2013) suggested, “To know things you have to grow into them, and let them grow into you, so that they become a part of who you are” (p. 1), this way of knowing is embodied and situated and often difficult to perceive and transform. In this section, the threads linking metaphor and reality, plants and children, gardening and teaching are grown into new ways of understanding one of the most difficult ethical dilemmas confronting classroom teaching: the tension between freedom and constraint.

In preparation for the students’ visit to the garden on August 2, 2012, I sent Jeannie Kerr three short readings for the students to prior to the research day. Jeannie spent a portion of class time engaging with the readings as a whole class activity. The three short readings were (1) an excerpt of the introduction from Philip Jackson’s (1990) *Life in classrooms*, originally published in 1968, (2) excerpts from Ron Benner’s (2008) *Gardens of a colonial present*, and (3) a short description of Hans Haacke’s (2006) *Der Bevölkerung*, his controversial installation in the courtyard of the German parliament. I included Benner and Haacke in the readings to help prepare the students to understand that gardens can be complex spaces for art and education, since I did not expect the students to have any experience with installation art. In hindsight, it would have been helpful for me to attend that preparatory class and engage the students in a conversation about site-specific installations and the meaning of gardens to contextualize these readings for the students. In the end, it was Jackson’s (1990) introduction that was the most accessible and engaging for the student teachers.

Jackson’s (1990) introduction describes how, while much that happens in classrooms is familiar and trivial and barely seems to register as significant, significant learning happens in these spaces that shape what we understand schooling to be about, particularly in terms of the design of spaces, the organization of time, and the relationships between adults and children. Jackson emphasizes that life in classrooms matters because “children are in school for a long time, that the settings in which they perform are highly uniform, and that they are there whether they want to be or not” (p. 5). The compulsory nature of schooling is key for Jackson:

the school child, like the incarcerated adult, is, in a sense, a prisoner. He too must come to grips with the inevitability of his experience. He too must develop strategies for dealing with the conflict that frequently arises between his natural desires and interests on the one hand and institutional expectations on the other. (p. 9)
This situation has important implications for teachers, who must learn to manage crowds in conditions with limited resources, evaluate children, and engage with the asymmetrical power relations between children and teachers. For the student teachers reading Jackson’s text, Jeannie could see how they were visibly unsettled and troubled by the implications of Jackson’s still timely study for teachers and teachers’ complicity in the institution of school and classroom life.

In our follow-up interview after the class visit to the garden, Jeannie described to me how the students seemed to respond to the introduction of *Life in classrooms*:

It resonated. All of a sudden you could see the troubling. Like in the book, *Unsettling the settler* [by Paulette Regan]. You have to be troubled first before you start making meaning. Because if you think you’ve got it already, why bother? So, if you start introducing these notions, and start troubling things, I think these questions get answered over a long time frame. I could see that they were troubled, which is a good thing. And that they didn’t have a quick answer is an even better thing. Being able to sit in discomfort and leaving yourself completely open to thinking and rethinking the layers of something—and appreciation for the complexity of what is being discussed. Not one more thing where you can just say, ‘OK, so now when we’re with kids we do that, and it’s over. Take the kids out in the garden twice a week. Done.’ (Jeannie Kerr, August 8, 2012)

Although we never made explicit connections to the readings while at the garden, there seemed to be traces of this unsettling and troubling that Jeannie noted in her students in reading *Life in classrooms*. The student teachers in the garden installation, *Threads grown*, responded strongly to the tension between freedom and constraint that teaching in classrooms—indoors or outdoors—entails. As many students and Jeannie Kerr remarked, the metaphors for teaching and gardening became inextricably entangled in the installation space:

My first response to the garden was how symmetrical it really was. The bottom of the flax was packed in so well, it truly felt like they were little desks. It was also interesting to notice the way in which we all moved through it. Usually from the ‘back’ of the garden to the ‘front,’ much like a classroom. It felt like every ‘desk’ was the same, but as you looked closer each one had its differences. (Student teacher, Field Notes, August 2, 2012)

Through an arts-based exploration of gardens and teaching, familiar metaphors such as the teacher-as-gardener became vivid and troubling. When asked to prepare a gift to the garden, one group chose to create a performance within the installation space, and it was in this performance that the conflicting presence of both freedom and control in teaching were brought to life by knotting the material and discursive metaphors and practices of both gardening and teaching.
The following is a loose transcription of the ragged threads of conversation that were captured on a handheld digital audio recorder as five women in one group worked in the far corner of The Orchard Garden to develop their performance. While I listen to the audio recording of their conversation, the women’s dynamic voices flow and bubble with laughter (much of it embarrassed laughter) and chatter, an unruly entanglement of ideas, movements, and bodies:

Interpretive dance?  
Throw me in and I’ll grow.

Laughter

The classroom, be the students and the teacher.  
She’s branching out into her own creativity.

Laughter

Oh my gosh, we could be the students that are sitting there—  
Are the flax the desk or the students?  
Oh, they’re the desks.  
We’re just kind of in our own little—  
I think we should all dance around.  
Yeah, I’ll be like—  
I don’t know how I feel about this.

Laughter

We all start doing an interpretive dance.  
Because it’s a collaborative process.  
What does it mean?  
I guess that we grow, and change, and shift, you cannot be contained by—  
You can try plucking. Prune, pluck, and trying to prevent that—  
Plucking, plucking. Prune and prune and prune.

Laughter

We’re in the outdoor classroom—just go all out!  
We all start sitting normally. The teacher gets up, starts sprouting—  
Then the teacher starts to pluck and prune her—  
Maybe she goes to each one of us, she goes through, we follow.  
I like the pruning idea. Maybe that could be at the beginning.

34 Since the five voices overlapped so frequently, I was unable to identify the individual speakers, which is why the transcription lacks descriptors to identify each separate speaker. However, each new line indicates a new speaker.
Prune, prune, prune.
She corrects you: Sit properly. Trying to do something, clamp down.
That’s a good idea.
She’s not impressed.

Laughter

You can be the teacher, you can be the pruner.
I’ll be the pruner, prunees.

Laughter

I can take my attitude to the classroom.
We have to have one person who is really easily pruned, who sits still, who kind of slowly grows out, cautious.
And then one person who can’t be contained.
And you can be the one who goes, “Yahoo!” Can’t be contained.
I keep trying to prune you down.
The rest of us can be more and more unruly.
I’ll go around to all of you guys, make you grow.
And the one person who doesn’t grow a lot, you guys need a lot of effort to get them up and grow.
I’ll be that person.
It’ll be like this…battle, between me pruning and you trying to get up.
What are we saying about teachers?
Teachers like the answers to everything.

Laughter

The teacher is sold on the idea. You completely change your attitude.
I’ll be like, “OK, you’re right guys, I’ll try.”
You don’t need to be pruned.

Laughter

Are you OK with that?
I’ll do anything. It’s August, I’ll follow the crowd.
OK, so how do we want to this?
I’ll be pruning the desks as we start off.
Something will happen and I’ll look up then go back to pruning. Really that’s when you start—
Something that’s happening is probably me going “woo!”
And I’ll look up. Just like how a kid does something, you see it, they stop doing it, you don’t notice it, they go back and that’s when it gets crazy.

Laughter
How do we want to end it?
All of us running around?
All of it seems disorganized.
Not running around but—
Maybe it should be more free in general.
We are moving around still and you’re moving too.
But it’s not just chaos.
It starts from really slow and then goes—
We are still up out of our desks, walking around.
That’s what I’m wondering, do we really want the statement at the end to be if you let them be free it’s just going to end in chaos?
Be at your desk and still be free.

Oh, wow! I like that! Yeah! Freaking out! [An eruption of exclamations from the whole group, and, for a few moments, the recording is nearly unintelligible as voices overlap with excited interjections]

I like that idea better.
Cause if you’re moving around then it’s just like—
Yeah.
Then how about we can give the teacher the power again, so I can go around the classroom and you can prune me back down into my desk but we’re still doing some movement together.
Still moving.
You buy the idea of letting us grow but then—
You give us the right tools, and you’re showing us something new.
Yeah.
We’re like, “Oh!”

Laughter

First, I don’t want you up. Then I realize, “Oh, it’s OK.” Then I do something, you do it.
So we’re building on what we’re doing.
Yeah, yeah.
And then what?
Maybe the bell rings?

The title of this performance became: Conflict between teacher control and student freedom. The individual voices are too muddled together in this recording to distinguish reliably, which is why I have left the students’ conversation as a collective, collaborative text; however, while each line of dialogue is not categorized through conventional writing practices with quotation marks followed by name tags, within the conversation the hum of individual lives and personalities is
vividly apparent. “I don’t know how I feel about this,” says one student, obviously apprehensive about the strange performance they are creating. The student who assumes the role of teacher/pruner, slides easily into her role. “I can take my attitude to the classroom,” she says with confidence, while another assumes the role of the student who “need[s] a lot of effort to get them up and grow.” “I’ll be that person,” she says. There is laughter (Sen, 2012) in the place of verbal analysis as to why and how these relationships, narratives, and roles are determined, they are familiar and have been developed since the earliest years of school experiences, patterned behaviours and hierarchies passively accepted. Only the constant laughter breaks the easy flow of the students’ work. While laughter builds a sense of togetherness, does it also mark spaces for resistance? Is it an analgesic to ease the pain of complicity in structures that do not fit the worlds of possibilities once again denied?

![Figure 24 - Performing ‘Conflict between teacher control and student freedom,’ Threads grown, The Orchard Garden](Photo credit: Chessa Adsit-Morris)

For the actual performance of *Conflict between teacher control and student freedom* that emerged within the installation space (see Figure 24), I only have my notes and a photographic record. The ‘audience’ spread around the walls of the installation, looking into the classroom. The five students positioned themselves in the installation; four crouched behind student desks, and one teacher with her back to the students at the larger teacher’s desk in the front of the classroom. Slowly, fluidly, and led by one particularly impish student, the crouched students began to rise from their desks, swaying gently but quickly huddling back down every time the teacher turned around. Finally, the teacher moved through the desks, pruning the students at the
desks, bringing them back down and controlling their movements. However, one student continued to move more than the others, and gradually they all began to sway, arms wide open, arms touching and reaching like tree branches in a breeze, moving throughout the classroom space. Finally, still swaying like flowing flax rooted to the soil, the students and teacher returned to their original positions, and the teacher began a lesson. The scene ended when she looked at her watch (see Figure 25) and announces (in mime) the end of class. The entire performance was silent; the student performers entering fully into their roles as actors—their initial laughter silent and awkward smiles largely dissipated from their faces.

Considering this performance in the installation space and its development outside at The Orchard Garden, I wonder, could this performance have taken place in a regular classroom
space? What conditions were made possible because the performance was set in a garden? In the recording, it appears that the students seem to feel freer to express themselves and take risks because they are outdoors. As one student encouraged her peers: “We’re in the outdoor classroom—just go all out!” As such, the performance exceeded the bounds of what is possible indoors. A student also mentions that since it is August (i.e., nearly the end of their program), she will follow the “crowd” and participate in an activity that exceeds her comfort levels. Nevertheless, although the space invited a momentary suspension of the constraints of classroom life, the power returned to the teacher in allowing only a degree of freedom of movement to the students bound to the grid of their desks, far enough apart that touching was no longer possible. Inasmuch as students (and flax plants) love to touch one another and interact, Jackson (1990), makes clear that one aspect of school life is that students ignore one another: “do your own work and leave others alone” (p. 16) is the frequently heard admonition. Ignoring others in a crowded environment suggests that students should behave as though there were in solitude: “These young people, if they are to become successful students, must learn how to be alone in a crowd” (p. 16). In addition to the physical control of space, the performance ended with the teacher suspending action, movement, and relationships by glancing at her wristwatch. The gridded movement of time, from block to block, imposes an external constraint on both students and teacher that is incontestable.

Ultimately, within the physical enclosure of the garden/classroom, a degree of freedom was conceivable but only for a certain length of time. Then the ordering forces of the institution (and narrative structures) returned, and I think this return was met with mild relief by the student teachers, otherwise, would this story end in chaos? The time frame reassured us that experimentation and risk-taking could take place but, as the one student asked: “That’s what I’m wondering, do we really want the statement at the end to be if you let them be free it’s just going to end in chaos?” By returning to the order of time, by rooting each student to the confines of her desk, this performance repeated and conformed to the western conditions of schooling that Jackson (1990) describes so vividly: “The implications of the teacher clock-watching behaviour…are indeed profound. This behaviour reminds us, above all, that school is a place where things often happen not because students want them to, but because it is time for them to occur” (p. 13). By ending with the call of the bell, the performance returned to the classroom
management tropes of pruning, controlling, and ordering that were momentarily resisted and held in experimental tension. In ecological terms, management is also the lingua franca of a western, industrial, scientific relationship with land, also based on timelines and physical grids to maximize anthropocentric economic and aesthetic values.

Another reading of the performance is possible, however, since it was situated in an unusual setting quite unlike a conventional classroom with its highly impermeable walls and few physical thresholds beyond a door and, in most cases, a window or two. Rather, the students’ performance in the classroom installation was in a very porous enclosure (see Figure 26). Considering the frames of the performance suggests a difference between the students’ preparatory ideas (above), which, as I discuss, return to conformity, and the actual event of the performance. One significant difference between conceptualization and performance is the arrival of an audience. In their preparation, the students did not consider the audience in the performance—where would the audience be situated, how would the audience participate in the performance, what role

Figure 26 - Witnessing freedom and constraint from the walls of the classroom, Threads grown [Photo credit: Chessa Adsit-Morris]
would the audience play? While I do not recall why the audience was positioned in the walls of the installation space, this presence becomes significant to re-reading their performance from the lens of becoming teachers together.

While the students’ performance returned to (or possibly remained bound within) tropes and clichés, particularly by ending the performance with the return of gridded time and space to order and control movement and interaction, the audience in this performance occupied the liminal space of beside along the walls of the enclosure. After the performance, the audience entered into the space through the walls and discussed what they had seen. While we discussed the authority of the teacher, fears of chaos, and the importance of touch, communication, and creativity, we did not talk about what the return of time suggested for the transformation that had taken place within the frame of the classroom and within the frame of the performance in the garden. One interpretation that I would like to propose is that this silence is perhaps a collective disappointment or dissatisfaction, a collective witnessing of the failures of the pedagogies of enclosures that lives lived in classrooms enact. Witnessing failure, even when this failure remains unspoken, may suggest that the trope of the enclosed classroom within the enclosed garden has tripped us. Haraway (2004) reminds us that the etymology of trope is to turn:

Words are irreducibly ‘tropes’ or figures. For many commonly used words, we forget the figural, metaphoric qualities; these words are silent or dead, metaphorically speaking. But the tropic quality of any word can erupt to enliven things for even the most literal minded. In Greek, 
\textit{tρόπος} means a turning; and the verb \textit{τρέπειν} means to swerve, not to get directly somewhere. Words trip us, make us swerve, turn us around; we have no other options. 
Semiosis is the \textit{process} of meaning-making. (pp. 200-201)

While we were unable to ‘go beyond’ enclosures in the students’ performance, a momentary disruption was possible during the performance and possibly registered silently as dissatisfaction or a sense of failure at the outcomes of the performance. A return to the same is never entirely possible, and the garden installation potentially disrupted or tripped us in understanding enclosures differently.

As Jackson (1990) suggested, “Only when the classroom is encountered under somewhat unusual circumstances, does it appear, for a moment, a strange place filled with objects that command our attention” (p. 7). As many of the participants at the research event commented, “All the metaphors are popping out.” This process of meaning-making in the garden made a
parenting/educational metaphor like *growing children* come to life and seemed to compel the students and their instructor to respond. One way in which a number of participants responded to the unsettling theme of freedom and constraint was to gently braid the loose strands of flax, which were “pushing out of that confinement.” Other responses to the installation were:

I really enjoyed visiting the garden. I was thinking that the ‘desks’ looked really overgrown and wild. It reminded me of how we try to ‘tame’ students into their desks in a regular classroom however they often are a little unruly. (Student teacher, Field Notes, August 2, 2012)

Interesting contrasts. The walls that are there and stop our progress but are also open to allow a complete view of the world outside the garden. The attempt at order of square blocks of flax for desks that are creeping beyond the composed boundaries. The border of wheat as an enclosure that has its uniformity marred by rogue plants. (Student teacher, Field Notes, August 2, 2012)

Within the context of the garden and its permeable boundaries, these conversations suggest that becoming teachers together with and in a garden/site-specific installation allowed us to recognize the difficult ethical relationships that teaching in classrooms—growing children and plants—demands. For, although we could not escape the inevitability that, “at the heart of the teacher’s authority is his command over the student’s attention” (Jackson, 1990, p. 30), this authority is necessarily incomplete. Teaching, thus, necessarily fails to entirely control learners within its enclosures. It is within these failed conditions that ethical relationships are made possible, for we are neither teaching machines (Jackson, 1990) nor gardening machines. The uncertainty that marks our teaching, however, cannot be hidden behind closed doors or by maintaining the illusion of outcomes-based standards. Becoming teachers together is an ethical responsibility, perhaps not to tear down the walls of the classroom (although in my research journal, I did wonder, “Why did none of the students even consider tearing down the grid or the walls, as in my dreams I feared someone would?”) but to create spaces for sharing and openness to vulnerability, failure, and unpredictability with other teachers and our students (and the more-than-human within the garden). Otherwise, as Britzman (2003) notes, teaching is reduced to methods and predicated on continuity, not change.

35 The notion of children’s consent in Indigenous models of education deserves more attention than I bring to it in this discussion of freedom and control in teaching (see Simpson, 2014).
Committed as I am in this dissertation to questioning the anthropocentrism in teaching, Barad’s posthumanist ethics are helpful for countering the tendency (in environmental discourses but also equally applicable to education) to externalize and objectify the world through management systems and technological fixes. Barad argues that an “‘ethics of mattering’…is not about right responsibility to a radically exterior/ized other, but about responsibility and accountability for the lively relationalities of becoming of which we are a part” (393, as cited in Alaimo, 2012, p. 563). As the students’ imperfect performance hints, this ethics of mattering can happen beside a pedagogy of enclosures; it is these lively relationalities of becoming that I see growing out of becoming teachers together, where even gardens might just possibly become teachers, too.

**Can a garden be a teacher?**

During the research event at the installation, I asked the student teachers in their Field Notes to consider the following questions and prompts: “Can a garden be a teacher? How does a garden become a teacher? Imagine yourself teaching in/with a garden…” Not surprisingly, since asking questions that are central to one’s research questions is not a recommended strategy for engaging participants, the resulting responses were rather predictable. To summarize quickly, the student teachers’ responses tended to suggest that, yes, a garden can be a teacher because it can teach us about patience, mutual respect (between humans and with the environment), planning, cooperation, interconnections, specific plants, surprise and the unexpected, observation, curriculum connections to any subject (e.g., to math, science, literature, art, etc.), ecosystems and the environment in which students live, where food comes from, invasive/native plant species, nurturing and care, and hard work. Many of these responses perpetuate the sense that gardens are tools, and that garden-based learning “can be defined simply as an instructional strategy that utilizes a garden as a teaching tool. The pedagogy is based on experiential education, which is applied in the living laboratory of the garden” (Desmond, Grieshop & Subramaniam, 2002, p. 20). For instance, one student explicitly wrote: “I believe that a garden can be a useful and effective tool as a classroom support. I could imagine myself as a teacher using a garden” (Student Teacher, Field Notes, August 2, 2012). As a tool or even a model to illustrate particular curricular or pedagogical objectives, gardens retain their distinct object status as separate from human material-discursive practices. Nevertheless, the range of responses suggests that gardens
are also more than tools, and that they can shift the parameters of how we know and grow our lively relationships with the world within which we live.

While the students’ suggestions that gardens can teach about interconnections and care may describe a shifting relationship with the land, I remain dissatisfied that moving through an installation that (I thought!) raised such difficult questions about grids, control, and the difficult histories of school gardens should result in such clichéd language. Throughout popular media, there are thousands of images and claims that link green growth to a good life, so it is understandably difficult to think alongside these clichés and our experiences with criticality as well as the love and hope that—justifiably enough—also characterizes careful relationships with growing things. In this context, student teachers’ clichéd responses to the possibility of the garden-as-teacher while participating in *Threads grown*, an installation that emerged out my own critical historical research and was framed to provoke an unsettling experience (for myself as well as other participants), could be seen as acts of resistance. Read this way, claims that gardens teach about interconnections, care, and respect without acknowledging gardens’ difficult discursive terrain can be read as, “Yes, this garden unsettles me with its strange juxtapositions. But, I don’t want to think about that now. I want to resist your didacticism and provocations. I want to remind you of the beautiful knowledge we all hold so dear, even you!” Needless to say, a couple of student teachers did considered how gardens teach the stories and histories behind plants and the importance of connecting gardens to their students’ culture and history “because working with the land can be a very personal and culturally significant project” (Student teacher, Field Notes, August 2, 2012).

One student, however, reversed the garden-as-teacher equation and explored how a gardener becomes a teacher. From the moment we entered the garden for the research event, this particular student had already assumed a significant teacherly role by explaining to her curious and attentive peers about how edible plants in China are considered weeds here (see Introduction to this chapter). Clearly, this student’s connections with land emerged from sustained yet displaced practices and a recognition that gardens are spaces of differences rather than a reduction to universality and sameness. The space of the garden installation allowed this student’s connections to grow metaphorically as well as practically:
A teacher is a gardener. I think being a gardener helps a person to be a more sensible teacher. A gardener can recognize the values of each plant and a teacher should recognize the different talents his or her students have. (Student teacher, Field Notes, August 2, 2012)

The teacher-as-gardener is perhaps one of the most familiar tropes of education, retaining the familiar identity of the teacher as a solitary figure (usually female) standing alone in front of a group of younger, smaller bodies, cultivating their minds and spirits through her love, patience, attention and her judgment for what is appropriate learning, behaviour, bodily movement, emotion within the enclosure of the classroom. While the differences between a garden-as-teacher or teacher-as-gardener and a gardener-as-teacher are subtle, the student’s reference to the gardener draws upon the embodied, discursive, and material practices of gardening that were familiar to this particular student, rather than depicting the ‘garden’ or the ‘teacher’ as a static and separate entity.

Metaphorically, western thinking has long associated gardening with teaching. A few well-known examples include Seneca (54/55 CE), who considered the gardener a model of a wise person (Jacob, 2002, p. 1), Johann Amos Comenius (1650) who allegorically described the work of the pedagogue as the art of the arborist who selects cuttings from trees to plant out as young trees in ‘God’s Garden’ (Jacob, 2002, pp. 1-2), and Johann Pestalozzi. Pestalozzi (1746-1827), a Swiss educator, influenced by the work of Rousseau, wrote that true education is like the work of the gardener under whose care a thousand trees blossom: “He contributes nothing to their actual growth; the principle of growth lies in the trees themselves … he only waters the dry earth … he only drains away the standing water … so with the educator. He knows that sound methods of education must agree with the eternal laws according to which these powers unfold.” (Pestalozzi, as cited in Walsh, 2007, pp. 65–66)

These views of the teacher-as-gardener are not monolithic. They range from a description of the teacher-as-gardener as a model, a disciplinarian, and a nearly invisible force bringing forth the inherent essence of each plant/child. Finally, however, there is yet another nuance that the student teacher brought forward in suggesting that the gardener-as-teacher (rather than garden-as-teacher or teacher-as-gardener) brings his or her relationship with plants into the classroom as a way of being a more sensitive and responsive teacher. The challenge is that there is no one way to garden or teach, hence no one prescriptive description of the gardener-as-teacher.
When the multitude of more-than-human life is conceived of as a teacher or an assemblage or meshwork of a multitude of overlapping teachers, the limits of constrictive, anthropocentric educational relationships may trip us to desire and work toward changing these enclosures. To inquire into how a garden becomes a teacher requires a careful understanding of how gardens are liminal spaces between nature and culture, neither one nor the other. However, and I am all-too complicit in this reduction myself, the greenery of the garden most frequently becomes equated with Nature or the nonhuman:

I feel that we can learn a lot from nature. For instance, the harmony, freedom and interconnectedness of nature can serve as a representation of how as human beings we can learn to just be. (Student teacher, Field Notes, August 2, 2012)

Yes, the plants teach you natural progression (the way life should be).… People rely too heavily on technology and therefore can’t survive on their own—it’s disappointing.” (Student teacher, Field Notes, August 2, 2012)

In a similar but broader vein, a frequent theme in environmental education is to open up education to nature-as-teacher. For instance, Greenwood (2012) implores us, “May we please open a window and listen to the teachers?” (p. 17, author’s emphasis). Clearly, these teachers lie outside of the building, walls, and bodies that characterize classroom life. However, Greenwood (2010) is also concerned that a direct connection with nature-as-teacher has been lost: “How far gone are we now, here, today, from the teachers?…What impedes our ability to perceive these teachings?” (p. 15). Indigenous scholars have long suggested that nature or the land is a teacher. Arapaho scholar, Michael Marker, writes:

This emphasis on relationships puts animals, plants, and landscapes in the active role of teacher and therefore results in a more holistic and integrated understanding of phenomena. This kind of holism resists constrictive and contrived taxonomies as well as disciplinary boundaries. It also produces a state of consciousness in the Aboriginal intellectual that makes no separation between scientific and moral understandings. (Marker, 2003, pp. 105–106, as cited in Brayboy & Maughn, 2009, p. 13)

Unlike Greenwood’s Nature situated outside the walls of the human world, Andean agronomist Rengifo Vasquez (1998) wrote, “In the Andean world everything is alive and important; nothing is inert and nothing is superfluous. The very stone is alive, it speaks and the peasant converses

I cite Marker’s (2003) work here in the context of Brayboy & Maughn’s (2009) article to point readers toward this excellent piece on Indigenous teacher education, which contains a powerful narrative about growing plants that is highly relevant for garden-based educators to consider.
with it as person to person. It is not that the peasant extends the notion of person to the stone…but rather that, for the peasant, the stone is alive” (Rengifo Vasquez, 1998, p. 97). To experience nature-as-teacher not as a cliché but as in many Indigenous relationships with the land requires a non-Cartesian view of the self that is in porous relationships with all life.

Frédérique Apffel-Marglin (2011) makes the link between Indigenous understandings and western academics exploring material feminisms (particularly Karen Barad). Through these lenses, Apffel-Marglin (2011) sees that in Andean conceptions, the self is not external to reality (as in perspectival drawing) but rather porous and nested with other forms of life, “and they all intra-act, making, growing, nurturing each other…The beings of the world make each other live, create each other, and inhabit the same world” (p. 159). Greenwood’s (2012) desire to learn from the teachers “outside,” unfortunately, once again repeats western binaries of nature and culture, of Paradise lost.

Tracing the shift from the teacher-as-gardener to the garden-as-teacher or gardener-as-teacher moves away from teaching founded on a presumed sphere of communicability (where students understand and receive the teacher’s intentions as new knowledge to be assimilated into their growing selves) to non-verbal, non-identification-based modes of relationship where, nevertheless, the experience of being taught by (not just to learn from) seems to be possible. As Biesta (2012b) wrote, “To learn from someone is a radically different experience from the experience of being taught by someone” (p. 457). What might it mean to be taught by a garden? Biesta’s (2012b) philosophical study of teaching is profoundly humanist and his teachers are undeniable Eurocentric humans rather than Indigenous scholars or the more-than-human; nevertheless, Biesta (2012b) values openness to difference and his pragmatist model is helpful, since he acknowledges that the fundamental gap between partners in communication must not necessarily be bridged. These insights offer entry points into interspecies relationships by recognizing that communication is not only about particular outcomes but also about producing or living a common world (Biesta, 2012a, p. 3). In this common world, calling someone a teacher “is a kind of compliment we pay when we acknowledge—and when we are able to acknowledge—that someone has indeed taught us something, that someone has indeed revealed something to us and that we thus have been taught” (Biesta, 2012b, p. 457). Caught as I am between an inherently Cartesian worldview that insists on nature as the passive backdrop
external to human activity and my longing to undo the boundaries between nature/culture, I still struggle to imagine a garden as that “someone” that reveals something new, and hence becomes a teacher. And yet, in all the exquisite moments of flax, fireweed, and spindles revealing new thoughts to me in this project, I sense the ways in which teaching is characterized by Biesta’s (2012a) radical exteriority: “teaching, if it is to have any meaning that goes beyond the currently popular idea of the facilitation of learning, needs to carry with it a notion of ‘transcendence,’ a notion of a radical exteriority that comes to me rather than learning that is produced by me” (p. 9). In these moments of being taught—by flax, by fireweed, by gardens, by land—I experience gestures or frissons of newness, interruptions and disruptions, rather than confirmations of the same old knowledge, self, things.

Communication, therefore, may not be the best metaphor for exploring the way gardens teach. First of all, we need to get away from an anthropocentric view that communication is only a linguistic exchange between rational, autonomous subjects. Haraway (2004) reminds us that even “I” am not a coherent subject; however, through conversations that recognize ‘otherworldly’ subject status, modes of recognition and ethical relating are possible: “conversation defies the autonomization of the self, as well as the objectification of the other…Communication, even with ourselves, is xenobiology: otherworldly conversation, terran topics, local terms, situated knowledges” (pp. 144-145). Secondly, Ingold (2013) suggests that correspondence might be a more generative term than communication for understanding how, through making, we come to learn and be in the world. Correspondence is the relationship between materials and makers, the way hands, for instance, know fibres as they spin thread and how thread records a trace of the maker in its constitution or the way spiders know flies in the making of their webs. In this way, Ingold posits an alternative to teaching that is necessarily coupled with a notion of a teacher’s agency as someone (a human) who transmits something (knowledge) to someone else (also a human). Gardeners and gardens are where plants and people, nature and culture correspond, and through this correspondence they grow together and thus know each other. In correspondence and making, we grow into knowledge instead of receiving it from a teacher, although this growth is not without authority, boundaries, and asymmetrical relations.
It is from within this notion of correspondence that the garden-as-teacher becomes a convoluted knot rather than a linear depiction of the relationship between separate parts. Originally (and even while writing this chapter), I continually returned to the idea that the concept of the garden-as-teacher was materially and discursively rich if viewed from the lens that the garden is a more-than-human teacher. By writing alongside scholars such as Marker, Biesta, Ingold, Haraway, Apffel-Marglin, and Barad, I have gradually been able to shift my discursive commitments toward a reconceptualized garden-as-teacher that is inextricably part of us/me and still impossibly other and unknowable to us/me, entanglements that are both “I” and “not-I.” As such, the more I learn about who I am, where I come from, how I am related to this particular piece of land, and the more I am in correspondence with the material and discursive assemblages growing with me in the garden, the more the garden teaches me, and the more I shape the garden. The teachings are radically new and outside of who I am, as well as immanent to what I bring forward in this particular teaching and learning situation. As Barad (2003) wrote, “There is an important sense in which practices of knowing cannot be fully claimed as human practices, not simply because we use nonhuman elements in our practices but because knowing is a matter of part of the world making itself intelligible to another part” (p. 829). Barad’s (2003) work requires parts and boundaries, inasmuch as her philosophical project is about entanglements and mutual implications through her concept of intra-activity:

We do not obtain knowledge by standing outside of the world; we know because ‘we’ are of the world. We are part of the world in its differential becoming. The separation of epistemology from ontology is a reverberation of a metaphysics that assumes an inherent difference between human and nonhuman, subject and object, mind and body, matter and discourse. (p. 829)

Barad (2003) describes the study of these practices of knowing in being as onto-epistem-ology; which, in this project, could be described as gardening-as-research (see the conclusion to this chapter) and I most certainly can acknowledge that I have learned from the garden, not as a separate object but as a space for encounters, relations, and experimentation.

To conclude, the notion of gardens-as-teachers only works materially and discursively if gardens are not conflated with Nature, that their greenery does not take us down the old, worn garden path of unmediated access to external realities and the innocence of wilderness and untamed land. Although gardens are enclosures, we cannot know all their boundaries. In this
way, humans are folded within the materials and discourses of a garden. If a garden is a teacher, much of what is human is also implicated in this teaching. Otherwise, to presume we can learn from gardens as expressive elements of nonhuman existence would suggest that gardens can be known as materials separate from human existence. Instead, might we become gardeners, growing our way into ethically engaged, unpredictable, and precarious relationships?

**Growing a research project**

How does growing a research project create conditions for liveliness, newness, and unexpected encounters with knowledge in the making (Ellsworth, 2005) to occur? In this dissertation I literally grew and made the installation series *Threads sown, grown & given*, to explore what emerges—both materially and discursively—when a garden, student teachers, and I (a doctoral student/gardener/teacher educator) become teachers together. The theoretical framework of material feminism that has been present in both my explorations of the tension between freedom and constraint as well as the notion of the garden-as-teacher aligns powerfully with a methodological process informed by site-specific installation art. As I discuss in the introduction to the thesis, site-specific installation art, much like material feminist theorizing, considers art to be emergent within the relational encounter between a site, viewer(s), and the artist’s work. As such, the aesthetic encounter is not the result of a subject experiencing an artistic object but a relational aesthetic (Bourriaud, 2002) or dynamic intra-action (Barad, 2003) of human and nonhuman, materials and discourses. Growing a research project becomes part of posthumanist and materialist research methodologies that attempt to radically expand the scope of traditional research. For instance, Sarah Whatmore (2006), a cultural geographer recognized for her posthumanist and materialist explorations of “more-than-human methodologies,” calls for such methodological experimentation and risk-taking to supplement familiar humanist methods that generate talk and texts with more-than-human research practices. What grows out of this section, therefore, are methodological considerations for ‘growing research’ by drawing on installation arts-based research methods and gardening.

Growing a research project as art and as a garden allowed the familiar spaces and times of classroom life to become unsettling and evocative, as though the metaphors of the garden-as-teacher/teacher-as-gardener were coming to life. In our follow-up interview, Jeannie recognized
that the arts-based approach made the class visit in August to *Threads grown* such a vivid experience:

I’m so impressed, honestly! It just captures you. Things are familiar and then not. The metaphors keep going and going. So that was something I don’t think we could get away from. And I think it just moves us beyond that whole textual thing, because you’re right there. And the metaphors keep popping up. I keep thinking, how can I say a complex concept without a metaphor? It’s literally impossible. It needs to be grounded somewhere, otherwise it doesn’t exist for you in your reality. I like to think about using metaphor as a pedagogical tool, like this installation. How do you start troubling questions? The student teachers were all really engaged in this idea of becoming a teacher, being a teacher, and the garden metaphors keep coming up and it raises all these things in really unsettling ways.

Gardening and particularly weeding (or pruning) within the space of “a classroom [brought] to life as if it were a piece of art” (Bishop, 2012) entangled the materials and discourses of teaching and relationships with the land in unexpected ways. As such, the research installation became a frame to experiment with what it means to become teachers together without suggesting a utopic telos or particular outcome of our experimentation. Rather, Bourriaud (2002) suggests that contemporary art of the 1990s (and, I would suggest, this research project) is about “learning to inhabit the world in a better way, instead of trying to construct it based on a preconceived idea of historical evolution” (p. 13, emphasis in original). Growing a garden can be a way of learning to inhabit the world *together* in a better way. A large part of this knowing emerges through making.

Ingold (2013) explores how making is not the domain of craftspeople and thinking the realm of theorists but that knowledge grows through making: “Making…is a process of correspondence: not the imposition of preconceived form on raw material substance, but the drawing out or bringing forth of potentials immanent in a world of becoming” (p. 31). Ingold (2013) calls this practice the “art of inquiry” (p. 6). The art of inquiry, Ingold writes, is material and experimental: “To practice this method is not to describe the world, or to represent it, but to open up our perception to what is going on there so that we, in turn, can respond to it…to set up a relation with the world that I shall henceforth call correspondence.” (p. 7). Through this creative process of correspondence, the generative currents of materials are in relation to the sensory awareness of the maker (Ingold, 2013), and knowledge can grow.

Sharon Kallis shared with me in an interview her relationship with materials and making that echo Ingold’s (2013) conceptualizations and my own processes of making and growing an arts-
based research project. When Sharon first starts creating a new piece of art, the materials are her first consideration: “The aesthetic is born from a ‘path of least resistance methodology.’ In that, if this is what the material wants to do, then that’s what it’s going to do, and how can I work with that directive?” (Sharon Kallis, artist interview, 2013). During the past few years, Sharon’s art practice has shifted from gleaning to growing the materials of her art making. When we talked about how growing and making and gardening have shaped our work, she commented:

The big thing is patience. Learning that I’m not in control or we as humans can’t be in control. We can’t be in control. That line between forward thinking—I’m planting this to harvest in four-months’ time—versus everything that can happen in that four-months’ time that will impact if you will actually have a crop to harvest. It’s very humbling. It’s also really excellent at keeping one’s perspective in check. What’s really worth worrying about, what you can control versus what you can’t.

For me, starting to garden was an evolutionary shift in my art practice, from being a gleaner to being a farmer because I had always worked with materials that were found, that were unwanted. Even now, when I weed at the Means of Production garden, it’s usually the weeds that I’m pulling off of the crops, as I tend the crops, that excite me more than the crops themselves. So, morning glory—oh, bindweed! I have a new material here that’s way more prolific, and there’s way more bindweed than there is willow, the crop that it’s smothering. So, I find myself not just ripping out the morning glory but carefully unbinding the bindweed and wrapping it up and having that as something useful. It’s interesting, the emotional or psychological shift that happens when we think about a material if it has a deemed value or not.

You can start off with an intention of what you want to make with that plant but in the end it’s a relationship between you and the plant, the fibre, the material whatever it is, where the material has its own life, it’s a conversation, it’s a relationship, it’s that back and forth, it’s that give and take. At a certain point, your ideas are being taken over by what the material itself wants to do. And that’s where the fun for any artists is, that engagement with their material. How much you chose to control the material, and—not this is predestined, this is what the sculpture or drawing’s going to look like, and there are a lot of artists who work that way. I don’t. I can’t. And I don’t have kids but I think of sculptures often as being like rearing children, where people start off with an idea of what their child is going to be like, and then there’s a kind of back and forth. At a certain point, the child starts talking back, having its own ideas, and at a certain point you have to just step back and let the work be what it is going to be, the same as what happens with children. They are their own entities and the work takes on its own personality and its own entity, and how successful a work is ultimately depends on how the artist navigates that relationship in the process with the material. How much are you controlling and imposing your will, as opposed to how much are you listening to the material and allowing the material to dictate or are you letting the material dictate too much? There’s a balance, it’s kind of magical and difficult to pin down or specify but there is that dance that happens. Or that conversation that happens with the work. And when you’re involving community, it’s even more so. It’s
complete chaos. It’s not just you and the material, it’s you, the material, and however many people have decided to show up and also have ideas about what the material should do and what the work might look like. I love that!

Growing plants, raising animals, raising children, and making participatory art are similar—even magical—processes of give-and-take, a dance between freedom and control. Like the student teachers performing freedom and control, and Bishop’s (2012) suggestion that the pedagogical classroom as a work of art requires that the artist/teacher negotiates the frames of freedom and control, Sharon allows the ‘enclosure’ of the garden to be a generative tension for her art-making practices to emerge.

Growing a series of installations as a form of research allowed me to both critique and think regeneratively about the place of gardens in education. Unlike a purely conceptual approach to research, this site-specific, arts-based process necessitated a kind of beloved intimacy (Bordo, 2008) with difficult knowledge, history, place, plants, people, and the particular events of the research project. In attending to the correspondence (Ingold, 2013) between maker and materials, it was difficult to fall within the patterns of paranoid academic critique without ethically engaging with my own complicity in the complex processes and creative and difficult work required to transform the particular conditions of a situation. Sustaining a stance of beloved intimacy, however, is difficult. Like in academic work, contemporary artists frequently turn to unveiling or exposing difficult knowledge in the form of critique as the underlying structure of their expressive gesture. According to Sedgwick, “the paranoid approach obsessively repeats the gesture of ‘unveiling hidden violence’ to a benumbed or disbelieving world” (p. 140, as cited in Kester, 2011, p. 52). Instead, Sedgwick juxtaposes paranoid knowing with reparative knowing that emerges from an impulse that is additive and seeks pleasure and amelioration rather than just scarcity, complicity, the hermeneutics of suspicion, and faith in demystifying exposure. In paranoia there is a rigid, repetitive temporality, “averse above all to surprise” (Sedgwick, 2003, p. 146) and mistakes. Although both can and are contained within contemporary criticism and art, paranoid knowing methodologically eliminates its weaker theoretical counterparts, while reparation offers openings for newness, surprise, pleasure, amelioration, abundance, excess—for growth.

Starting with Threads sown and continuing on in Threads grown, I recognize now with hindsight that the installation operated within this tradition of paranoid knowing, focusing as it
does on exposing a historically-situated critique of indoor and outdoor classrooms and the relationship between education and gardening. *Threads sown, grown & given*, however, moves toward beloved intimacy and reparative knowing, particularly through the relationships that emerged with flax and fireweed and through the rather magical process of spinning flax to linen in the basement of the teacher education building. Even within *Threads grown* there were moments when my rigid commitments to obsessively containing and exposing particular discourses were disrupted, and the surprising materiality of the project caused me to confront mistakes and the unexpected. As arts-based research that draws on site-specific installation art-making practices rather than focusing on creating a particular site-specific installation as the outcome of the research, attending to these moments of intense affective uncertainty become the story of growing the research.

Disruptions also occurred in other unexpected moments that post-qualitative researchers such as Jackson and Mazzei (2012) and St. Pierre (1997) are increasingly exploring as modes of inquiry that are embodied, multi-sensory, and not based on the autonomous, rational Cartesian subject. Throughout *Threads sown, grown & given*, I documented the fragments of three dreams that emerged alongside the research process in my research journal. The first dream occurred during the night before I met the first class of student teachers to distribute consent forms prior to their class visit in the garden for *Threads grown*. This dream was the most vivid and emotionally-charged of the three, and I share with you the jumbled recollections from my research journal notes:

I dreamed the installation had been removed, displaced, destroyed. My one committee member was coming to see the installation for the first time, and I was acting somehow nonchalant (did I already know it had been removed?). The installation had become quite a structure—plywood flooring, the walls seemed more wooden & filled in. But only a partial row of flax plants, grey & bedraggled, still remained in their soil on the wooden flooring. The rest of the space was strewn with garbage, odds & ends of wood. The entire space felt crooked, tilted, dirty. My committee member was quiet. I found clumps of flax plants on a large, ceiling-high compost & garbage heap. Some of the plants were stuffed into my bike panniers, strewn on the mountain of waste. She said something, perhaps, ‘This is not good. Hard to work with.’ And I started to crack. Frantically, I ran to the admin of family housing. And shuttled between people, I repeated my story: ‘Who moved my installation? That’s my PhD research…destroyed! Why did no one talk with me? Everyone knows I’m the garden coordinator.’ Nearly incomprehensible amidst my tears & sobbing. Shocked, distressed, understanding from the women. ‘There was a man. I talked to him. He’s a weaselly man. Uncaring.’ (Research journal, July 26, 2012)
This dream of the classroom installation (in the dream the installation was apparently housed in an actual wooden classroom) being destroyed by some administrative decision, by some “weaselly man,” suggests how multi-modal, affective, embodied research grows into and emerges from unconscious and ineffable events quite unlike what is reported in positivist research that requires a rational, knowing (replaceable) subject to conduct replicable, verifiable, and transparent studies. It also raises cautionary notes for becoming researchers (particularly graduate students and their teachers): There are risks to knotting oneself into experimental modes of research that can implicate the researcher’s emotions, body, imagination, and even dreams in the research process.

Powerful affective moments in the research process also included intense doubt that this process was in fact research. While methodological considerations in the literature made it clear that a classroom as installation would be a rich site for understanding and experimenting with the relationships between education and gardens, actually vocalizing these theoretical conversations and experimenting with real people in a real place with philosophical concepts could illicit intense experiences of doubt for me. These emotions became most evident in Threads grown, when I first began sharing my research with participants and the public beyond my committee. On the eve of the research event, I wrote in my research journal: “I have massive doubts that this is (a) research, (b) education (c) art…but here goes!” (August 1, 2012, 11:38 pm). While part of this doubt emerged as a result of the tensions between the certainties of positivist, empirical, scientific research and the ambiguities of conceptual, qualitative, arts-based research, it is also related to the challenges of becoming a researcher, and struggling with how and what we research defines us as academics, particularly in the eyes of the tax-paying public.

My struggles to feel confident in presenting my research outside of a specific academic community are indicative of underlying doubts and uncertainties in arts-based research more broadly. While arts-based research has gained significant prominence in education research, it must still participate in public intellectual work (O’Donoghue, 2009). As such, “we have a responsibility to think critically about and address issues of interpretation in arts-based research” (O’Donoghue, 2009, p. 359). The narratives from the student teachers who participated with me present in the garden installations suggest that they were able to make meaning through their encounters with the work (perhaps at times superficially; however, many communicated that
they were generating meaning by grappling with the more complex concepts of the work. However, without my mediating presence in the space of the installations does this arts-based research still retain accessibility and communicability beyond a small academic community?

What degree of ambiguity can arts-based researchers employ in presenting their work without running the risk of their work losing its communicative value? When is there a sufficient degree of referential clarity so that the work makes sense to a broad educational community? Given that artworks have significance only for those who have the means of appropriating them (Bourdieu, 1993), will the products of arts-based researchers be comprehensible only to those who have the means to access them? Can re/presenting research outcomes in, with, and through an art form serve as an effective way of reaching multiple and diverse audiences? (O’Donoghue, 2009, p. 359)

In an interview with the student gardeners at The Orchard Garden, they expressed to me their challenges in personally interpreting the installation as well as communicating its meaning to visitors at the garden:

I didn’t know what it was. Everyone just said, ‘Go ask Julia.’ So, I asked Julia and then I kind of got it. It was just interesting to watch the flax grow and how soft it was. And I’m totally oblivious to symbolism or anything like that. I got the whole desk thing but the rest I wasn’t so sure about. I remember seeing someone not walk through the door and walk through the wall. So it seemed as if they totally didn’t understand what was going on. I heard someone say, ‘What are those things?’ They didn’t get that they were windows. (Student garden team member, August 13, 2012)

I guess at first I was a bit sceptical. Another area not going to be in food production. But I also really like flax, and that kind of won out in the end, because it was so beautiful when it was flowering. And, definitely throughout the season, some days I got it, some days I didn’t. Some days the explanation came out right, and some days it was, ‘Go ask Julia.’ People definitely thought it was a science experiment. ‘Are you doing test plots out there? What kind of treatment are you doing?’ But when you said this is a classroom, meant to be a classroom, people were like, ‘OK,’ and they’d look at it differently—try to look at it differently. There were definitely a lot of people who were sceptical of that. But that could also be the way I was saying it that day. (Student garden team member, August 13, 2012)

Growing arts-based research outside of a gallery, outside of a building, outside of the humanities, outside the traditional positivist research paradigms, and inside a garden largely intended for local food production creates many issues regarding interpretability. There were few signs to prepare viewers for an artistic encounter, which meant that the installation was either illegible or invisible. For instance, since The Orchard Garden is in the university’s science precinct, passerbyes frequently saw the desks in rows as familiar scientific test plots rather than a classroom installation. Eventually, after much deliberation, I hung a small laminated sign at the
entrance to the classroom installation; however, I doubt many people accessed this small attempt at communication. Formally and physically labelling the project as art was challenging, since I have never publicly displayed artwork and it is not my intention to be an artist through this work. It also required that I put words to describe and frame the installation and the research while it was in process, which was a further challenge raised by the simple act of posting a sign.

Becoming a researcher/teacher is to live with doubt, to make uncertainty a generative affect for attending to the unexpected in the research process. As Arendt (1998) suggests, living alongside the uncertainty of whether thinking (or, in this case, research) has meaning is part of the human condition: “The activity of thinking is as relentless as life itself, and the question whether thought has any meaning at all constitutes the same unanswerable riddle as the question for the meaning of life; its processes permeate the whole of human existence so intimately that its beginning and end coincide with the beginning and end of human life itself” (p. 171).

However, to be clear, the significance of doubt in this research process highlights more than affective data to be mined for the métissage text that is this dissertation. Generating compelling stories aside, this doubt also reminds me of the humility required in conducting research; while growth is a powerful methodological mode of inquiry, it has limits. Some of these limits are material (e.g., the particular conditions of a site), discursive (e.g., when encountering Indigenous onto-epistemologies as a settler researcher), and practical (e.g., it is impossible for the researcher to be everything and everywhere—gardening, art-making, researching, teaching). Recognizing the limits of such research does not erase the significance of posthumanist, material feminist, decolonizing, arts-based research methodologies. What grows through arts-based research must still be grown within an enclosure, a certain framework of intelligibility, and even then, growing is a precarious relationship with life and always framed by the possibilities and realities of death. As such, the material and discursive limits of growth are necessary theoretical, methodological, and ethical constraints.

**Mourning the limits of growth**

Thus far, I have considered growth, growing, to grow, and to be grown largely as generative, albeit complex, onto-epistemological concepts and practices that can allow new relations and new knowledge to emerge. As the powerful critique of “growth” in terms of the limits to...
economic progress and development suggests, however, growing (things, people, ideas, relationships) is not an ethically neutral discourse nor practice. The limits to growth include the material limits of this precious and precarious planet Earth. On a finite planet with limited resources, the rapid and seemingly infinite growth of human populations, economies, consumerism, corporate empires, resource extraction projects, industrial agriculture, and pollution have begun to dramatically illustrate—via global climate change in particular—the devastating limits of growth. Scientists have begun calling this era the Anthropocene, our most recent geological era during which human activity increasingly transforms the planet’s geo-physical systems and is leading to extinction rates hundreds or thousands of times higher than background rates and occurring within increasingly shorter time spans. What does it mean to become teachers and gardeners within the Anthropocene? The Anthropocene announces the end of Nature, since it suggests that humans are now altering (could one say, gardening?) the earth at the geological scale. In the living tissues, soils, air, water, and ice of the planet, humans are transforming the conditions of life at an increasingly accelerated rate, and the consequences of these changes are utterly unknowable. While the Anthropocene announces a tragic marker of our time and the ultimate example of an anthropocentric discourse, it may also be the era that ushers in space for mourning and grieving death as a necessary condition for cultivating ethical relationships within the ultimate enclosure—life.

Bethany Nowviskie, a scholar in the digital and environmental humanities, directs our attention to the ways in which the Anthropocene may be an opening to witnessing and mourning death and extinction:

What does it mean, I asked you, to witness mass extinction—the end of so much ‘worldly striving?’ What could, or should it mean to us, or motivate us to do? John C. Ryan, a scholar of the cultural history of Australian flora, emphasizes emotional and aesthetic losses, which he says have only been ‘minimally articulated in the [scientific] literature’—all those ‘colours, sounds, smells, behaviours, and relations,’ the absence of which leave ‘our sense worlds impoverished.’ If it’s true, as the Indian anthropologist Shiv Visvanathan has written, that ‘science has no mourning rituals,’—then Ryan might well seek consolation in poetic inquiry alongside botany. But this, he writes, ‘requires a [real] framework and actual modalities for mourning’—a productive aesthetic…the development of which could be a special task for the digital and environmental humanities in our time. (Nowviskie, 2014)
Emotional and aesthetic losses, sensory impoverishment, modalities for mourning—how to teach within and beside the pedagogies of these difficult enclosures of Anthropocene? These aesthetic and ritual practices that Nowviskie is calling for are currently missing in the capitalist orientation of settler colonial societies, which are oriented toward individual growth and consuming the here and now. Apffel-Marglin (2011), taught by Indigenous Andeans, has learned that “the liveable world must be constantly rewoven for its fabric gets frayed or even unraveled in the very process of the rhythmic actions of the collectivities; because of this, rituals must be constantly reiterated. It is attending to this fraying, this unraveling, that I name **regeneration**” (p. 163). Regeneration is not simply attending to life or creating more life but it creates spaces to address death and decay, and, by doing so, enriches the meaning and value of life.

To be honest, this opening for mourning death and considering the limits of growth arrived into this dissertation just as I was poised to write this chapter on *Threads grown* and long after the research events of *Threads sown, grown & given* had passed. Suddenly, I was confronted with the suicide of a friend who had accompanied this research process since its inception as a friend, writing group colleague during our graduate studies, and even as a research participant as I sat spinning flax to linen in the basement of the teacher education building. I knew that the “I” who was attempting to write about growth had been shaken so deeply by this death that new threads were irrevocably being knotted into this chapter. While I cannot know why my friend ended her life, depression and deep ambiguity about her place in a world where humans seem bent on ecological destruction and social inequity were realities with which she struggled. In decolonizing ecological discourses there is often a pervasive sense of being ‘out of place,’ and that settler colonialism and modern consumerism have caused such extensive social and ecological destruction that it becomes conceivable to believe that humans—particularly of European descent—do not belong and are the Earth’s “natural aliens” (Evernden, 1993). Of course, religious traditions based on creation stories of rejection from the paradisiacal Garden of Eden have long identified the human fall from nature as a central facet of and struggle within human life; however, this sense of alienation appears now to be particularly pervasive. Ultimately, through whatever unknowable constellation of reasons, my friend no longer felt that her life mattered and that it had become a burden for her relationships with the living. There is much to be feared when we gaze directly at the delicate and precarious threads that hold life
together in the short space and time until death comes. I saw that fear in my friend’s eyes, felt it in the tension of her narrow shoulders I ineptly tried to hug and hold, heard it in her voice on the phone when she talked of the endless and unchanging grey emptiness of her inner landscape and worried about the loneliness of long days spent at home alone while on disability leave.

In bringing my friend into this dissertation, I want to learn from and honour her death so that, however mutely, the stories entangled in life can continue to circulate and not be forgotten. In an unexpected turn, it has been through her death that I have begun to realize that how we mourn and honour the dead—whether dead plants, humans, nonhuman animals, languages, ideas, cultures, or art—is crucial in how we live and teach together within this planet becoming a garden of our own making. In the previous chapter, I considered how togetherness is always haunted by aloneness. Living lives without regenerative rituals that care about death can exacerbate the feeling of aloneness and haunt how we grow into the liveliness of the world. Without speaking together of death, without weaving death into the fabric of life, those fears of being forgotten by the living, of having a life not worth living, of being humans out of place in the paradise—a Persian word for enclosure—of this planet can push us into losing ourselves to ourselves and continuing the devastation that drives all asunder.

Thom Van Dooren, a leader in the emerging field of extinction studies in the environmental humanities, draws on the work of Thomas Attig to understand the importance for mourning extinction. On the Canadian Broadcasting Corporation’s (CBC) show, Ideas, Van Dooren considers the capacity of mourning to change the world. There’s a philosopher and grief counsellor, Thomas Attig, who talks about mourning as a process of re-learning the world…. For him, mourning is a confrontation with a changed world. It’s through the process of mourning that we come to understand that the world has changed, that something about the world we inhabit is gone…. If we are going to go forward, we must ourselves change; we have to relearn a changed world. And part of that relearning is reconsidering how we fit in, and how we ourselves might have been changed, and that changes might be demanded of us to go on. In the absence of mourning, we miss those kinds of opportunities for deep reflective work, as individuals and as a culture, of how we might go on differently. Perhaps what we owe the dead is to genuinely learn from them and change our ways so we don’t send so many more species after them over the edge of extinction. (Wray, 2014, my transcription)

Contemplating photographs and the act of photography, in the context of a friend’s death and the garden’s decay, created openings for moments of mourning to become deeply pedagogical in this
project. Considering the absence of attention to death in this research project, however, I am aware of the immense difficulties involved in cultivating responses to death, decay, and extinction through mourning.

Throughout the research project, and continuing on during the writing of the dissertation, I documented the garden installation, *Threads sown, grown & given*, by a series of time-lapse photographs. Gardens grow so slowly and imperceptibly within human time frames that I wanted a record of the installation that would reveal the dynamic changes that take place in a garden over a long period of time. Furthermore, the materials of gardens are ephemeral, compared with the more durable traces of human presence in architectural structures, even though all eventually succumb to the same processes of decay and our experiences of architecture—the sound of footsteps, smells, the movement of light—can also be ephemeral. Through time-lapse photography, I thought I could create the sense of movement and change that writing and photography normally frame as static. The time-lapse photographs of the installation show how the garden both grows and dies within the frame of the classroom. Of course, this photographic record is from a fixed position; it is quite unlike the experience of moving through the space. Nevertheless, the patterns and rhythms that occur when I watch the time-lapse in a rapid loop have a synaesthetic quality of music and movement. Its endless cyclical repetition reminds us of the death that is part of the material cycles of matter and life; there is no such thing as endless, limitless growth.

This time-lapse also records, however, a methodological “cut” (Barad, 2003) which unevenly frames the relationship between death and life, as there are many more photos of the growth processes that took place with the outdoor installation than those that depict the inevitable death, decay, and stillness of the garden during the fall and winter months. The time-lapse photographs were not taken on a rigid schedule, rather, I took photos every time I worked in the garden or passed by with my camera. The time-lapse record, therefore, is equally a record of my presence/absence in the garden as it is a record of growth and decay. Logistically, it is much harder to take photographs during the rainy season on the Pacific west coast; however, my absence in the garden during the seasons of decay are significant for more complex reasons as well. First of all, while human presence is implicated in death (particularly in the context of the Anthropocene, where human activity is resulting in the destruction of habitat and unprecedented
species’ extinction) we consider death to be a ‘natural’ condition of living plants (and nonhuman animals) that seems to erase the need for human intervention, witnessing or mourning. Human absence in a winter garden is indicative of a seasonal retreat into the warmth of homes and the hearth but it may also be a more fundamental retreat from engaging with death. How does the cold and apparent desolation and inhospitality of a December garden confront me materially with the uncomfortable possibilities of my own death? Secondly, human absence (as recorded by the absence of photographs of the garden in stages of death, decay, and repose) in the winter garden suggests that Threads sown, grown & given did not cultivate rituals of mourning and grieving that recognize the precarity of all life.

Judith Butler (2010), drawing on and extending the works of Roland Barthe’s Camera Lucida and Susan Sontag’s On Photography, among others, suggests that the photograph is a powerful affective, narrative, and material frame for recognizing the future anteriority of a life:

The photograph relays less the present moment than the perspective, the pathos, of a time in which ‘this will have been.’...Every photographic portrait speaks in at least two temporal modes, both a chronicle of what has been and protective certainty about what will have been...installing and soliciting a perspective on the absolute pastness of a life. (pp. 96-97)

Butler conceives of this condition of future anterior and absolute pastness to open up forms of grieving, qualities of grievability for life not yet past, “to underscore that a life is a grievable life” (p. 97). In my photographic time-lapse series, the vivid and vital green growth that emerges out of the soil is framed by the future anteriority of its inevitable passing. However, it was not until this vivid growth—during Threads given with the fireweed—was threatened by human ‘development’ rather than cyclical decay, that I increasingly sensed that “the precarity of life imposes an obligation upon us” (Butler, 2010, p. 2). The precarious nature of all life, human and nonhuman, “implies living socially, that is, the fact that one’s life is always in some sense in the hands of the other. It implies exposure both to those we know and to those we do not know; a dependency on people we know, or barely know, or know not at all” (Butler, 2010, p. 14). A life becomes grievable when the loss of that life matters. In an individualistic world addicted to dreams of eternal youth, detached from death, and without regenerative ways of grieving, do we know the value of a life? How do we recognize the loss of human and nonhuman lives that
matter? Butler’s response is to shift from the individual to the social and political, to our ethical obligations “to the conditions that make life possible, not to ‘life itself’” (p. 23). Without my friend’s death, without attending to death in the garden and death’s near-absence in my time-lapse photographs, \textit{Threads grown} would have reproduced an interest in ‘life itself,’ with growing and becoming without being framed by the necessary shadows of precarity, decay, and death.

Lingering beside this pedagogy of enclosures, to grow and be grown are only powerful material-discursive practices and metaphors if growth is considered in relation to death and decay. In the Anthropocene, this framing is materially, discursively, and ethically necessary as life on this garden planet increasingly reaches the precarious limits of possibility. From an educational perspective, a field that engages explicitly with natality and welcoming new possibilities into the world, enclosing life within death may seem a bleak prospect for becoming teachers. However, as Arendt (1998) offers, life has two meanings, both the eternal recurrence of natural cyclical life and the time interval between birth and death:

Limited by an beginning and an end, that is, by the two supreme events of appearance and disappearance within the world, it [this second form of ‘life’] follows a strictly linear movement whose very motion nevertheless is driven by the motor of biological life which man shares with other living things and which forever retains the cyclical movement of nature. The chief characteristic of this specifically human life, whose appearance and disappearance constitute worldly events, is that it is itself always full of events which ultimately can be told as a story, establish a biography. (p. 97)

Establishing human and more-than-human biographies, telling the stories of lives we have lived, held, touched, and recognized in our midst, is to teach and mourn within a pedagogy of enclosures that is regenerative and reparative of the endless fraying and unravelling which marks all life. Stories, like all art,

is how one lives at one’s best with others through creating something eternal, something that creates affects, that impacts the bodies of others, especially those in the future, that summons up a future, sings or paints it into existence from the sources of the past and

\[37\] In drawing on Butler here, I recognize that posthumanist and material feminist scholars have frequently challenged Butler’s work on materialism for its emphasis on discourse and inherent anthropocentrism (see Barad, 2003 and Alaimo & Hekman, 2008). At the risk of being theoretically inconsistent, I nevertheless see value in Butler’s (2010) work, wherein Butler herself acknowledges her debt to the work of Donna Haraway by not only positioning human lives at the centre of recognition and responsibility.
present. Art is a virtual leap into worlds to come, it is the way that the present most directly welcomes the future. (Grosz, 2011, p. 191)

To my friend, whose disappearance from our shared lives still touches me, your life remains a story for us here and now, tomorrow and elsewhere. Flax and fireweed, companions of this project, your lives are also stories that are knotted into my life, this work, and worlds to come. These lives lived have grown, died, and threaded their ways into what it means to become teachers together.
What do Indians want? Great question. The problem is, it’s the wrong question to ask…
What do Whites want?
The answer is quite simple, and it’s been in plain sight all along.
Land.
Whites want land…. The issue has always been land. It will always be land, until there isn’t a square foot of land left in North America that is controlled by Native people. (King, 2013, pp. 215-217)
Land. If you understand nothing else about the history of Indians in North America, you need to understand that the question that really matters is the question of land. Land has always been a defining element of Aboriginal culture. Land contains the languages, the stories, and the histories of a people. It provides water, air, shelter, and food. Land participates in the ceremonies and songs. And land is home…

For non-Natives, land is primarily a commodity, something that has value for what you can take from it or what you can get for it… there is little chance that North America will develop a functional land ethic until it finds a way to overcome its irrational addiction to profit. Unfortunately, there are no signs that that’s going to happen any time soon. (King, 2013, pp. 218-220)

The stories to which I turn to at the end of this dissertation are all entangled with relationships to soil and land, the most potent and difficult threads from which this entire research project was sown. As the quotes from Thomas King’s (2013) Inconvenient Indian suggest, it is time that non-Natives stop asking (i.e., researching) what First Nations want and begin understanding, explaining, and telling stories about the historical, material, and discursive conditions of settler colonialism and capitalism that continue to frame land as a commodity, as property (see Figure 27). This chapter shifts away from the central research questions around becoming teachers together, which have been the primary focus of the past three chapters, and turns to questions at the root or foundation (any soil-based metaphor will do!) of this research. As such, the chapter explores relationships between education, research, and soil or, more generally, land. Particularly, how do colonialism, patriarchy, religion, nationalism, heteronormativity, and the vestiges of Enlightenment rationality create material and discursive conditions for becoming teachers together in relationship with land? Turning to the question of land is neither returning to beginnings nor endings (inasmuch as soil, dirt, clay are central to creation stories across many religions, cultures, and places) but a generative reframing of and lingering beside (Sedgwick, 2003) tensions and possibilities that are profoundly educational and difficult to go beyond.

In the previous chapter, Threads grown, a consideration of growth—to grow and to be grown, the spaces, materials, and discourse of becoming teachers together with a garden became entangled in emerging understandings that death and decay are difficult but necessary threads in these conversations and pedagogical practices. Similarly, while this chapter explores how sowing ideas and seeds are both central to agricultural and educational thought and practices, these hopeful desires for birth and newness are once again framed to respond to difficult and
compelling historical and affective situations. In fact, separating *Threads sown* and *Threads grown* into two separate chapters creates cuts in a fluid process where there was no clear demarcation between the conception of the installation series and its emergence and growth.

Returning to the etymology of garden as enclosure, the themes that I explore in this chapter consider various ways in which relationships with land are framed, materially and discursively, and the pedagogical implications of these frames. I begin with the central material and metaphor of this chapter: soil, and the ways in which historical and contemporary garden-based discourses continue to positively value connections with the soil, notwithstanding the difficult legacies of soil in oppressive discourses. The second thread considers design and landscape design more specifically, since this is the complicated ground upon which the conceptual work of *Threads sown, grown & given* began. Throughout this section, I struggle with designing and gardening the grid, and with my surprisingly strong attachments to a pattern I expected to critique and ‘go beyond.’ Designing and framing landscapes is profoundly linked to colonial relationships with soil, land, and territory, and the ways in which school gardens and education more generally—historically and today—can participate in sowing oppressive relations between humans and the more-than-human worlds we inhabit. Finally, this leads to a feminist foray into the ways women’s acts of weeding bring patriarchal order into landscapes and classrooms. Furthermore, the metaphor of sowing seeds is difficult feminist terrain, since it reproduces gendered, heteronormative language around reproduction that frames women and soil as passive recipients of male action and the liveliness inherent in the seed. These material and discursive dynamics are threaded throughout classroom spaces and culture, whether inside or out, and are of particular significance as we enter the Anthropocene, this most recent age of man [sic!].

Since there is no research event during *Threads sown* around which to centre my writing, this chapter turns to materials and discourses that set the installation series and this arts-based research into motion and also simultaneously attempts to understand attachments to creation stories, origins, and lineages that this arts-based research reifies inasmuch as it attempts to critique and challenge. Still entangled within problematic narrative attachments to beginnings, I will nevertheless briefly describe *Threads sown* as moments of conception before moving into the thematic threads that I have outlined above.
It is the summer of 2011, and I am in the garden, bustling about, preparing for groups visiting The Orchard Garden. As I enter and exit the garden, my eye catches the bright green glow of emerging seedlings at the top of the garden, just to the right of the path. Busy as I am that day—and the following few days when I am at the garden—I don’t take the time to stoop down to touch and properly look at these unfamiliar little plants. Are they weeds? But why are they growing in such a homogeneous little patch? While I recognize most of the common weeds in a northwest coast garden, these little plants are unfamiliar. Gradually, the little seedlings grow taller and taller, and it is clear that this patch of plants must have been planted by someone. But what is this plant? It isn’t until the plants reach knee height that I touch them, move my hand through their gentle, swaying stems. When the sky-blue flowers begin to open, I am finally compelled to reveal my ignorance and ask one of our student gardeners about the mysterious and beautiful plants. She tells me that this plant is flax, and that she had planted golden flax seeds from Dan Jason’s seed company at her family home garden the previous year and saved the seed to plant at The Orchard Garden this year. And so, flax (Linum usitatissimum, the most useful line) an ancient plant that shaped European and Middle Eastern material culture yet was utterly unfamiliar to me in any form beyond edible seeds and comfortable clothing, entered into my world and this research project. When Roger Simon (2006) writes about being compelled to respond to history, I also think of the way flax entered the research and compelled me to respond. Flax (and, later, fireweed) exerted a strange attraction or obsession that was irrevocably sown into my imagination as I developed this arts-based research project.

Prior to the arrival of flax in the research, I imagined that the arts-based installation would echo Hans Haacke’s (Flügge & Fleck, 2006) interest in the things that emerge from bare soil in his installation at the German parliament entitled Der Bevölkerung. My idea was to engage with the colonial concept of terra nullius, or empty land, and respond to a comment that I heard frequently at the garden in the springtime, namely that the soil needs to be planted. My initial ideas was to fence-off a small square plot of land (perhaps with the ubiquitous and clichéd white picket fence?) within The Orchard Garden where nothing would be seeded nor weeded throughout the growing season. However, as flax slowly threaded its way into my thinking, I began imagining growing a large circle of flax plants in the garden, where someone could lie down in the middle of a blue sea when the flowers were in bloom. Finally, it was the relentless,
focused period of study as I wrote my comprehensive exams on posthumanism, school garden history, and site-specific installation art and performance as arts-based research methodology that helped create the intellectual conditions for the flax-based classroom installation (and its title, originally Threads sown and grown, sewn and given, later Threads sown and grown, woven and given) to emerge.

While it was study that helped create the conditions for Threads sown, it was while falling asleep, losing sleep, breastfeeding at night, dreaming, and awakening that I explored the various possibilities for the installation series and research project. During the intense academic work of writing exams, I would frequently fall asleep imagining the installation series and wake up with visions for how to move things forward. Before going to sleep, my thoughts around the research would frequently be stressful, frantic, nervous repetitions of a body and mind unable to relax: “This project is an obsession, a beast that wakes and zings my mind just when other bodies relax and soften, quieten.” (Research Journal, April 1, 2012). In the morning, however, I would lie in bed daydreaming after my (then) two-year-old went downstairs, and simple, clear, fresh ideas would literally propel me out of bed and into the new day.

I often lie in bed in the mornings, after my partner and child have gone down to make breakfast, and think about this project. While I wouldn’t say that I am entirely calm as I envision the garden, make mental notes, etc. I think that my body/thoughts are still slow and half-dreams as I awake. In fact, many aspects of this research were conceived during these bookends to sleep. I prefer the morning ideas—they literally propel me out of bed and set me in motion for the day. (Research Journal, June 7, 2012)

From its inception, Threads sown only deviated slightly from the initial plan I developed during my comprehensive exams (see Figure 28), although the precise number and spacing of desks and rows, the spacing of bean plants, the photographs included on the historical school garden windows—these were all details that became clear as I worked in the installation space. However, the actual frame—desks in rows, a larger teacher’s desk, a large rectangular classroom frame made of cedar, windows, plants growing in the ‘walls,’ a doorway—remained relatively unchanged from idea to implementation. One of the unresolved design aspects of the installation
that I did struggle with was whether or not to include text in the space. At various moments in the spring of 2012, I played with the idea of a blackboard-like canvas behind the teacher’s desk, and an art education colleague once kindly visited the garden with me and we discussed how labels and small signs could be part of the installation. In the end, the only words in the space were included on a few of the historical images and on a sign I placed just outside the front door of the installation space explaining how this part of the garden was part of an arts-based research project and to contact me for more information.

As discussed in the previous chapter, Ingold’s (2013) anthropological study of making suggests that creating a work of art is about the correspondence between maker and material. *Threads sown*, however, remains deeply rooted in patriarchal, Enlightenment notions of an idea/seed that emerges from within human consciousness as the germinal location from which art emerges. Frequently, I was aware of this irony, since this heavily designed and controlled space...
represented many of the ideologies and human/nature relations that this research initially intended to critique and move beyond. I explore these contradictions and tensions in the following section.

**Rooted to the soil**

Soil, dirt, earth. A lively, unpredictable thing—or, more accurately, a multitude of things, dead and alive, material and discursive. While soil generally evokes positive metaphors of belonging and life, this substance is as deadly as it is lively. As the birth and death place of terrestrial organisms, soil is also the metaphoric ground for nationalism, patriarchy, and racism.

In Germany during the Third Reich, oppressive nationalistic and eugenicist discourses were sown by the *Blut und Boden* ideology that formed the rationale for the school gardening movement in the 1930s (Jacob, 2002). In North America, war also brought out soil-based discourses as the symbolic driver for national school gardening projects and curriculum (see Hayden-Smith, 2007). During World War I, the United States School Garden Army (USSGA) rallied children as the “soldiers of the soil” in a patriotic battle to feed the nation and win the war.

With a shocking lack of criticality, Hayden-Smith (2007) sees this wartime school gardening movement as “a relevant model for the current mobilization of American efforts relating to food production and conservation” (p. 20), and is uncritical of the United States School Garden Army’s implicitly white and anti-immigrant discourse. Rather, she writes that this program was considered an “antidote to the disastrous social consequences of excessive urbanization...American cities teemed with immigrants living in appalling conditions” (p. 23, my emphasis), a citation wherein my italicization of *teemed* is to highlight the devaluing of urban immigrants through racist and speciest imagery of dirtly, crawling insects. Hayden-Smith (2007) concludes that the USSGA’s “program enabled youth to incorporate the beauty and uplifting influence of nature [read: whiteness] into urban settings, and to create new urban landscapes more strongly influenced by things pastoral [read: white]” (p. 23). Granted, substituting the word “white” for nature, land, and the pastoral as I do is not an elegant form of argumentation on my part; however, I fear that many contemporary school gardening initiatives remain attached to soil-based metaphors without understanding or ethically engaging with the historical and
ongoing contexts for these discourses. Currently, with the growing revival of garden-based, place-based, and environmental education, soil-based metaphors are once again promising a golden future: “we have found learning gardens as one viable alternative [to online global citizenship education] that helps to root children and youth in the local soils of life under their feet, encouraging ‘soil-based’ citizenship” (Williams & Brown, 2012, p. 66). These moral discourses are understandable, since healthy soil is a material necessity for life on earth; however, this material necessity is not a carte-blanche for discursive rhetoric disconnected from oppressive historical and contemporary metaphors rooted in the soil.

For instance, Dilafruz Williams and Jonathan Brown’s (2012) book *Learning Gardens and Sustainability Education*, opens with Wendell Berry’s (1970) poem: “Sowing the seed,/my hand is one with the earth…. Eating the fruit,/my body is one with the earth” (pp. 57-58, cited p. ix). Like many of the well-intentioned discourses in garden-based education, this poem does not question who sows the seed, whose body is one with the earth, nor the universalizing ethos that longs for a return to Eden, for oneness, and wholeness. As Guthman (2011) suggests, Berry’s “romanticized American agrarian imaginary erases the explicitly racist ways in which, historically, American land has been distributed and labor has been organized…For African Americans, especially, putting your hands in the soil is more likely to invoke images of slave labor than nostalgia” (p. 276). Similarly, for many residential school survivors, school and community gardening can elicit responses tinged with trauma rather than promote spiritual and physical well being (Bomke, 2012, personal communication; Mundel, 2012, personal communication). Inasmuch as school gardening may seem an escape or flight from messy human realities, it is also deeply intertwined with the workings of power and political relations with place. An emerging body of scholarship (see Alkon & Agyeman, 2011; Gibb, 2011; Guthman, 2011; Mares & Peña, 2011) in food justice studies is provoking critical considerations of whiteness and inequality in the alternative food movement, with important implications for scholarship on school gardening.

Rooting *Threads sown, grown & given*, therefore, in a material and discursive relationship with soil through *Threads sown* raises difficult questions for school gardening and environmental education. If soil is such a crucial material and discourse in environmental education and school gardening in particular, how can educators and researchers approach the matter of soil without
reproducing oppressive social relations and ecological destruction? Claudia Ruitenberg’s (2005) proposal for a radical pedagogy of place critiques the turn to “topological essentialisms” that link “our true selves” with our “homeland” or “native soil.” While place-based education frequently invokes notions of home, ground, roots, territory, and inhabitation, Ruitenberg’s (2005) recommendation is to focus on commitment rather than locality:

Despite the commonly used metaphor, human beings do not grow actual roots on which they depend for their physical, intellectual, or ethical nourishment. Instead, nomads who have learned the ethical gestures of hospitality and openness to a community-to-come will bring nourishment to any place in which they land. (Ruitenberg, 2005, p. 219)

Turning to Derrida, Ruitenberg (2005) suggests that hospitality and nomadism offer more open and generative metaphors for social and ecological education. Ecojustice educators and scholars, such as Leesa Fawcett (2009) in her writing on feral sociability and nomadic ethics, have also contributed extensively to critiquing essentializing discourses around soil and homeland.

In writing about feral sociability, Fawcett (2009) suggested,

Nomadic ecological learning is somewhat like being an earthworm scholar…. By being continually loosened, stirred up, and aerated by the action of earthworms, soil is made more fertile and drainage is improved. Earthworms add their casts, decaying organic material to the soil, and form a source of food for others. (p. 235)

While I appreciate the intent of this expression of nomadic ethics, I would complicate Fawcett’s turn to soil-based metaphors and organism, since earthworms, those wriggling darlings of gardeners, are feral, too. The common earthworms that we know in our gardens were brought along as ship’s ballast and clinging to the plants and tools transported here during the colonial conquest of the Americas. These feral worms have dramatically domesticated our gardens, and their destructive impact on forest ecologies and landscapes is considerable (Eisenhauer, Partsch, Parkinson & Scheu, 2007). Furthermore, drawing on Evernden, Fawcett suggests that earthworm scholars should “tunnel together more conscientiously towards the light and away from the waste” (p. 235). This link between darkness and waste is problematic. In ecological terms, there is no such thing as waste. Whether the container is the planet or the cosmos, all matter is cycled and transformed, not wasted. Then there is also the issue of linking darkness with waste and light with emancipation and liberation. This language follows teleological and potentially racist tropes, which a nomadic sociality must acknowledge and continuously unsettle. There is one
final difficulty with the worm scholar figure that simply must be stated (and anyone with a vermicomposter would know): worms never go toward the light, they go into the darkness. If soil is consistently going to shape environmental education discourses and pedagogical practices, then burrowing into dark matters is where a considerable amount of energy must go and come from. Ultimately, it seems that if we cannot get beyond soil, there is always living beside it, soiled by our unruly worm-like relations of desiring, repelling, leaning, twisting, and so on.

Inasmuch as soil is a potent metaphor for school gardening discourses, perhaps the fact that soil is so poorly understood should act as a material reminder of the limits of this metaphor:

What Leonardo Da Vinci said five hundred years ago is probably still true today: ‘We know more about the movement of celestial bodies than about the soil underfoot.’ Though you never see them, ninety percent of all organisms on the seven continents live underground. In addition to bacteria and fungi, the soil is also filled with protozoa, nematodes, mites, and microarthropods. There can be 10,000 to 50,000 species in less than a teaspoon of soil. In that same teaspoon of soil, there are more microbes than there are people on the earth. In a handful of healthy soil, there is more biodiversity in just the bacterial community than you will find in all the animals of the Amazon basin. (Amaranthus & Allyn, 2013)

Again, drawing on scientific research, soil is not only poorly understood, it is also seriously threatened. Not only desertification and soil erosion are the results of poor human-soil relationships. Even within soil itself, that matter teeming with biodiversity at the threshold between life and death, the biodiversity of soil organisms (bacteria, fungi, and so on) is in serious decline (Robbins, 2013). Ironically, the iconic symbol in school gardening of a worm wriggling on the exposed soil lying in the palm of a child’s hand continues the myth that we can know soil and possess its material and discursive potential. The Food and Agriculture Organization of the United Nations recognizes the importance of keeping soil hidden: “It has been shown that with minimal soil disturbance and maximum retention of crop residues on the soil surface there is much greater spatial and temporal differentiation of belowground food webs and processes compared to conventionally cultivated soils” (Food and Agriculture Organization of the United Nations, 2014, Sustainable Agricultural Practices section, para. 5). Leaving crop residues on the soil surface also suggests that growing food is a messy process rather than one requiring impeccable weeding and order.
Burrowing blindly as a feral settler worm-scholar into the dark matters of soil and relationships with land has unsettled—without erasing—my attachments to blank slate metaphors of soil. Not knowing soil, not relying on methodologies of uncovering knowledge and exposing the truth in the bright light of certainty, is part of the work of experimental arts-based, material feminist research which strives to create new relationships for teaching in relationship with the land.

**Designing grids in the dirt**

The university campus garden is a contrived Arcadian environment, a space of refuge, separated from the city and withdrawn from the banalities of the everyday. Such gardens echo French formal garden design and their symbolic forms of order where straight avenues lead to campus buildings and managed plantings follow the predictabilities of cyclical time. The university campus strives to create an ostensibly ‘empty’ space, devoid of any evidence of individual human activity and to construct an environment apparently free of contention and conflict. The campus landscaped garden is a utopian frame for learning and abstract thought, absent of any form of narrativization or obvious occupation of place. It is a contextual *tabula rasa* and a place of decorum, away from the chaos, dirt and violence of the city. (Rugg, 2010, p. 72)

Set on one such university campus, *Threads sown* is a perfect, a rather tragically perfect, example of a design emerging from the colonial, patriarchal, empire-building narrative of *terra nullius* and *tabula rasa*, in which inhabited land is seen by colonizers as empty and a blank slate to be transformed into a grid by the civilizing powers of progress and as a sign of such progress. The ensuing legacies of European colonialism turn around this crucial point of the tabula rasa, or blank slate, since Indigenous people’s apparent lack of ownership or control over their lands was used to justify colonial usurpation under the guise of ‘improving’ land-use practices (see M’Gonigle & Starke, 2006). This imposition of the gridded, gated, enclosures of Eurocentric gardens on lands usurped through colonial conquest around the world marked the shift from First Nations sovereignty to Eurocentric control and assimilation. As Denis Cosgrove (2008) writes, the gridded landscape was a cartographic tool indebted to Platonic ideals and visual aesthetics of order:

The grid’s projective geometry made the earth visible and itself became a powerful stimulus to further visions of spatial order…[and] to escape the bonds of earth and encompass with the mind’s eye its magnitude and plenitude…The most consistent,
extensive and permanent visible landscape trace of Europe’s colonization of global landscapes during the half millennium between the mid-fifteenth and mid-twentieth centuries is the territorial inscription of cartography. The graticule, geodesy and the grid were practical tools of empire and modernity. (p. 21)

The relentless grid traversing varying landscapes and peoples presupposes a rationality that makes sense from a visual perspective above the earth (a God-like perspective we can now enjoy in airplanes). As Brent Davis (2013) indicates, this grid is equally present in our schools and understandings of education, since everything from the lesson plan (which etymologically comes from the Latin word for flat or planus), to grade level (from the Latin libella, a balance or level), to standards (from the Latin stare, to make right angles), to linear models of development (from the Latin Linum, the line of flax), to norms (from the Latin norma, a carpenter’s square) suggest a pervasive quest for linear social (and ecological) relations. Like campus gardens, colonial landscapes, and curricula, ideals of order and control have long shaped the design of school
gardens (see Figure 29). This order and control is particularly apparent, Spike (2012) suggests, in ‘beautified’ school gardens in early-twentieth century Nova Scotia:

A beautiful school ground was an orderly and productive school ground. Moreover, the proposed sites of school gardens were consistently referred to by reformers as though they were blank slates or empty spaces just waiting to be filled with tidy rows of beans, petunias, and rose hedges…Without overstating the obvious—that the proposed discipline of nature in the schoolyard replicated the kinds of discipline enacted on the bodies and minds of pupils in public schools—it is nevertheless worth noting the extent to which such orderliness was prescribed by reformers for all aspects of the elementary school experience…Despite the rhetoric of New Education, which sought to break with the formalism of traditional schooling and encourage the growth of the individual child, it must be noted that in its application in rural areas many aspects of reform during this period also sought to censure the local character of rural schools in favour of a standard vision of universal education. (pp. 62-63)

While Threads sown was conceived as a critique of these very forms of colonial control over land and educational relationships, by tracing my ideas directly onto bare soil cleared of weeds and carefully plotted into a gridded landscape to represent a gridded classroom, the first materializations of this research project performed my critique in ways that were profoundly uncanny for the performer. Contrary to the theoretical and methodological commitments that frame this research (material feminism, site-specific installation art, arts-based research), Threads sown sustains the centrality of the single, human artist in conceiving of original artwork, the centrality of the human researcher in manipulating the research conditions, and the centrality of a human teacher in setting the conditions for learning. More than a critique of these material and discursive performances, Threads sown inadvertently revealed to me my own attachments, underlying assumptions, and desires for the very things I espoused to challenge and move beyond. However, as discussions in site-specific installation art, landscape architecture, and my own research journal entries from late 2011 to early 2012 suggest, designing and sowing a grid in the soil was a project filled with unexpected and frequently conflicting emotions.

Transforming a historical and theoretical critique of the gridded classroom and school garden landscape design into a physical landscape resulted in unexpectedly visceral ethical and emotional responses that frequently extended beyond the frame of the classroom installation to entire The Orchard Garden:
I asked everyone [in-service teachers at The Orchard Garden for a Summer Institute on school gardening] to weed the desks, and, as they weeded, to think about how weeding provokes memories or metaphors of being a teacher/student. There was laughter and concern: ‘Weeding the desks to be just flax is creating a monoculture,’ one man shared, clearly upset by the anti-ecological nature of the activity. Another woman was sad when she realized that she’d weeded a poppy out of one desk. I heard two women talking about how they organize the desks in their classroom, and another woman stood behind the ‘teacher’s desk’ and cried out, ‘Ah, my first day!’ The potato plant that was growing out of the side of one desk was weeded, I noticed after everyone left and I ‘cleaned’ (raked) the classroom, collecting weeds (compost). I felt some relief, having been uncertain about what to do with this plant. I explained to the group (in response to the man’s comment) the tension I feel as a gardener, artist, researcher. As an installation artist, making a commentary of the ‘monoculture of the mind’ that is the conventional classroom, I feel compelled to garden in that vein [i.e., a strictly weeded monoculture]. But there’s more here—my compulsion to keep the entire Orchard Garden presentable and neat is stronger than that of the other students. I feel deeply insecure about presenting external messiness to the outside world. Surfaces matter deeply for me. Pleasing others. Maintaining distance. (Research Journal, July 4, 2012)

Conflicting emotional and ethical tensions emerged in sowing the seeds of a grid in the garden. These tensions ranged from: my desire to perfectly trace the initial design as authentically as possible onto the physical landscape; my longing for messy, biodiverse, and resilient ecosystems that call into question romantic narratives of nature in balance and other static environmental narratives; my contrarian desire not to fall into ecotopic design traps of idyllic nature by presenting real agricultural monocultures in all their ruthless ubiquity and to unsettle notions that Nature (in the form of green plants) is separate from humans; my responsibilities toward the university as The Orchard Garden project coordinator in maintaining a presentable space within the highly ordered campus landscape; my belief that an orderly and productive garden landscape would convince the university’s administration of our project’s validity and thus protect our project’s long term viability; and, finally, my own sense of pleasure that sowing and cultivating a grid produced.

As one of the student gardeners observed during a group interview about the research project, site-specific installation art can create conditions of uncertainty through which the artwork emerges. Drawing on her experience as a dancer, she questioned the degree to which the early phases of installation series reflected site-specific installation art practices:

Doing installation, site-specific work as a dancer, there’s that element of control that you don’t have, an element of time—you have no control over if there’s going to be a
thunderstorm...or when something’s actually finished because it’s got its own rhythm and schedule. I don’t think of your work so much as site-specific. Definitely, that it’s on a university campus and that there are classrooms all around—it’s echoing everything it’s surrounded by. But in terms of topography and land, I feel it could be anywhere, at the UBC Farm, for instance. Maybe that’s something you were going for but I don’t feel like, with most site-specific projects that I’ve been involved with, where you research what the space is and then you craft it to what is already existing. Where this felt very much imposed on—clearing everything, making it very intentional. (Student garden team member, August 13, 2012)

Certainly, designing *Threads sown* was about imposition, clearing, and intention and not Ingold’s (2013) conception of making as “a process of correspondence.” Rather, preconceived forms were imposed on the materials of the installation (plants, soil, land) to depict geometric forms and narratives largely conceived prior to sustained interaction with the site, although arguably the manner in which flax plants entered into and shaped the work was the result of unexpected, emergent relations and affinities consistent with site-specific, collaborative artistic processes, and posthumanist methodologies.

Ron Benner’s site-specific installations (primarily outdoors in gardens or with explicitly agricultural themes linked to colonial history) open up the possibility for gardens to be spaces for aesthetic encounters and strongly influenced the design process for *Threads sown*. Bos (2008), in commenting on Benner’s work, writes:

> Often when the garden is used for art purposes, the artist manipulates plant materials or the landscape as he or she would use other art mediums to create a work of art. This can include the use of plants as abstract materials, expressing colour, texture and form. In Ron Benner’s work, inspiration comes from the meanings inherent in the plants: their botanical histories, herbal significance, associations and meanings within our culture and other cultures. The location and use of certain plans and plantings evokes powerful political overtones related to environmental issues, industrialization and technology. (pp. 58-59)

In *Threads sown*, I realize that the garden plants entered the design as passive materials that, for instance in the case of flax, I could manipulate to create a grid of desks; however, the plants’ status as objects quickly assumed lively, unpredictable properties as the threads grew materially and discursively throughout the research process. In a Skype interview for this research on May 15, 2013, Ron Benner and I talked about this tension between designing using abstract forms and the fascinating, uncontainable materiality and agency of plants. For instance, at one point in the conversation, I shared with Benner how his garden installations on prisons, colonialism, and food
plants resonated with my rather ambivalent fascination with gridded landscapes, both inside classrooms and in school gardens.

Ron: You know what’s funny, you could plant a totally anarchistic garden in a rectangle. And it just so happens, like you made the point earlier about the circles, it just so happens that industrial agriculture can be circles. And rectangles can be totally open-pollinated, organic plants. The shape of the garden is not that important.

Notwithstanding this disavowal of the importance of particular geometric shapes, Ron went on to talk about his fascination with ellipses.

I’ve used elliptical forms because it relates back to ellipsis, and that’s lack of memory. It’s the total opposite of what people think usually. I use the elliptical form because it’s having no memory. That’s why I was so happy you said industrial agricultural can be in circles. Absolutely! In my work, I don’t use the elliptical form because it’s organic. It’s because it’s no memory, people have no idea where food is from, and I remedy that with my signage or my photographs. The elliptical part is not ‘Indigenous.’ Far from it, it’s lack of memory and all people suffer from that.

Ron Benner, in drawing on abstract forms such as ellipses yet unsettling their metaphoric significance, creates spaces for complex and contradictory narratives and pedagogical performances about plant and people relationships to emerge.

Similarly, Pearson and Shanks (2001), whose work on performance and archaeology was also seminal in opening up new methodological possibilities for this dissertation research, suggest that a dualism of understanding landscape as entirely subjectivist aesthetics (e.g., visuality, movement, ethnography, etc.) tends toward a polarisation between Cartesian objectivism (e.g., maps, absolute point) and subjectivism (e.g., relative or meaningful place, space of journeys). Instead, the authors recognize that these tensions cannot be made to disappear; that “landscape is a field of process and relationship, a contradictory nexus, itself to be explored” (p. 154). As such, Pearson and Shanks advocate for involved aesthetics and political economy; maps, geometries, and evocations (p. 154). Within this tension, land can be understood as fixed Euclidean space-time and as something performed. As John Law (2010) asked,

Is land a fixed reality in a Euclidean space-time box (which is how white people tend to experience and enact it in their practices)? Or is it rather something that is done, and done again, and then done again, within practices and rituals (which would be closer to aboriginal experience)? (p. 185)
Recalling Pearson and Shanks (2001), I would respond to Law (2010) by saying that land is both map and performance. Performing land and relationships with land, in addition to designing and mapping these relationships as I attempted in *Threads sown* (and continue to do so in this dissertation), are contradictory nexuses that requires careful, humble, and imaginative exploration.

Within landscape architecture, the professional field most closely implicated in designing landscapes, considerable academic debate turns around the meaning of gardens and landscapes and whether or not landscape designs communicate meaning (Olin, 2011b; Treib, 2011) initiated the current debate during the late 1980s in response to two trends in landscape architecture that he felt were diminishing the field’s artistic value. His first critique was that landscape architecture confuses human landscapes with natural landscapes and processes:

Students, teachers, and practitioners alike demonstrate a lack of understanding of the relationship between the author/artist/designer and the medium of expression; also, they fail to understand its limits, range, and potential and the one hand and display an ignorance of the formal issues within the field and an anticultural stance that eschews aesthetic concerns and their history on the other (Olin, 2011b, p. 24)

Olin’s (2011b) second, related concern, was as follows:

A new deterministic and doctrinaire view of what is ‘natural’ and ‘beautiful’ … has replaced older, alternative, views that were equally doctrinaire. Couched in a born-again language of fundamentalist ecology, this chilling, close-minded stance of moral certitude is hostile to the vast body of work produced through history, castigating it as ‘formal’ and as representing the dominance of humans over nature. (p. 24)

Olin’s (2011b) strong language suggests that landscape architecture as a field in the late 1980s was struggling to define its intellectual and artistic commitments and identity, and that understanding what it means to ‘design with nature’ were at the heart of these struggles.

Historically, landscape architects developed formal designs (i.e., the British gardens designed by Lancelot Brown and André Le Nôtre, principle garden to Louis XIV); however, by the 1980s, landscapes were increasingly being designed according to ecological mandates to imitate ‘natural’ processes, solve ecological problems, and hide human interventions as unnatural impositions. All four contributors to Treib’s (2011a) essay collection (Laurie Olin, Marc Treib, Jane Gillette, and Susan Herrington) critiqued Ian McHarg’s (1969) seminal *Design With Nature*,


a book that proposed ecological urban planning processes based on ecological concepts and systems. While undoubtably influenced by McHarg’s work, their primary concerns are that a prescriptive stance toward landscape architecture is anti-intellectual and ahistorical, and that it “conflates ecology as a science (a way of describing the world), ecology as a cause (a mandate for moral action), and ecology as an aesthetic (a norm for beauty)” (Whiston Spirn, 2000, p. 112). Olin (2011b), who himself has continued to design within formal traditions, recognized that the ‘artificial’ and highly controlled landscapes that McHarg decried are significant historical traditions in landscape architecture that explore the central questions of the field with continued relevance to landscape architects today:

Artificial as they [i.e., the landscapes of Brown and Le Nôtre] may be, ecologically simplified as they are, the effect is that of being in a landscape larger than oneself, of many of the feelings one has in a “natural” landscape—of light and space, of amplitude and generosity…. Both refer to agriculture—whether that of pastoral herds or forest plantations, irrigation, and draining schemes—the larger organization of the cosmos and whether it is knowable or not…. Neither ever designed or built a composition that visually or formally imitated nature; both abstracted their forms from nature, farming, and art. (pp. 40–41)

However, Olin’s (2011b) discussion of landscape architecture has been critiqued (Treib, 2011b; Gillette, 2011; Herrington, 2011) for its strong socially constructed view of nature, wherein Olin (2011b) posited,

It is, after all, people who project ideas upon nature, who create value systems, and structures of thought, not the other way around. Whatever meaning occurs in any landscape, natural or otherwise, is only that which has been created by society. (p. 45)

Marc Treib’s (2011b) own response to Olin’s (2011b) original provocation is somewhat contradictory in this regard:

To my mind, significance ultimately lies with the beholder and not in the place. Meaning accrues over time…. Familiarity and affect are not quite the same as significance although they can serve as vehicles for its creation…. Meaning condenses at the intersection of people and place, and not alone in the form the designer’s idea takes. (Treib, 2011b, p. 114)

38 Laurie Olin is the landscape architecture of the Memorial to the Murdered Jew of Europe, Berlin, Germany.
Ultimately, taking Treib’s (2011b) conclusion to suggest that meaning condenses through relationship between people and place over time offers a more nuanced view of the meaning of gardens and landscape design than Olin’s (2011b) fully socially constructed one.

Both Herrington (2011) and Olin (2011a) recognize the impact that earthworks and site-specific installation art have had in disrupting the intellectual traditions of landscape architecture. As Herrington (2011) wrote, “An aspect of these movements that should not be underestimated is their preoccupation with context as an important evocation of meaning” (p. 184). Olin’s (2011a) own response to his original article, however, while acknowledging how site-specific installation art has influenced landscape architecture and shaken its foundations, is clear to distinguish between landscape architecture and site-specific art “in that they didn’t bear the same burdens and responsibilities, nor the great potential of landscape architecture when it solves and transcends its utilitarian purposes through artistic expression” (p. 73). This discussion within landscape architecture about its intellectual, practical, and aesthetic histories and tensions is significant for Threads sown, grown & given and this research in a number of ways.

On the one hand, Threads sown appears to comply with Olin’s (2011b) criteria for landscape design by capturing a sense of the pleasure that natural environments create (e.g., the beauty of flax swaying in a gentle breeze), engaging with agricultural themes and traditional forms (e.g., monoculture fields in a gridded landscape), and questioning human/nature relationships through artistic expression. Particularly in the context of Threads sown, this highly controlled, gridded installation certainly did not tend toward a ‘born-again language of fundamentalist ecology” and moral certitude, although as Threads sown, grown & given emerged over two years and shifted from flax to fireweed, normative longings for ‘natural’ design arguably began to play an increasingly significant role in the design (or lack thereof) of the installation space. Ultimately, however, as an arts-based research project, I agree with Olin (2011b) that I never had to bear the significant responsibilities of landscape architecture in designing a space that is functional, meaningful, and aesthetic. However, in my experience with campus planning at UBC, my arts-based project was also relieved of an additional burden that only surfaced briefly in Treib’s (2011a) collection: the burden of professionals to their clients to ‘mine’ a place for its “Genius of
the Place” (Treib, 2011b, p. 90) which can then be branded and marketed\(^\text{39}\) as authentic, even though this spirit of a place may be destroyed by the very landscape design created in the name of progress and development (see Treib, 2011b, p. 100).

Designing a landscape, sowing those seeds, and desiring that a landscape mean something for future visitors is a complex dilemma for landscape architects and a central thematic concern at the heart of site-specific installation art. Theoretical discussions in landscape architecture around design and meaning provide a helpful historical and disciplinary context for this garden-based research project. As Treib’s (2011a) collection suggested, landscape architecture has also not ventured into material discursive terrain via material and visual culture studies, cultural geography, material feminisms, and posthumanism. The authors only briefly touch upon these possibilities by opening up the debate around what constitutes meaning to including embodied senses and, in particular, focusing on pleasure as a register for understanding and communicating the meaning of gardens and landscapes.

Unfortunately, with the exception of Herrington (2011), discussions around embodiment and pleasure largely continue within humanist binaries that separate rational and emotional or embodied ways of knowing. For instance, Treib (2011b) turned to physical senses and pleasure as perceptual modes that largely bypass “the encultured mind” (p. 115), recognizing that the place of pleasure in gardens has a long history, and the sense that gardens are comforting, restorative, delightful, and healing pervades garden design and literature throughout diverse cultures. Similarly, Gillette (2011) suggests that the most salient feature of the garden is “to give pleasure of a certain mindless sort” (p. 139):

If it is true that much of the pleasure we derive from the garden depends on denying the separation between conscious man and the rest of nature, then the development of the garden may be considered the elaboration of a complex life…by and large, the garden has flourished by denying the close investigation of a whole realm of ideas. (p. 139)

For a research project indebted to researching via an embodied mind beside a garden, Gillette’s (2011) separation of the mind and body through physical experiences of pleasure is both a perpetuation of humanist binaries and, nevertheless, a word of caution for garden-based research

\(^{39}\) An example of this kind of branding can be seen in the context of The Orchard Garden becoming the Orchard Commons, and the architects’ use of notion of the ‘gift’ (Chapter 3).
methodologies that raises a series of difficult questions: What kind of thought is possible in a
garden? What is the nature of thinking with gardens? Why might gardens deny thought and
ideas? What are the implications of these erasures for garden-based education and research? As
this dissertation hopefully attests, I disagree with the essentialising (see Herrington, 2011)
tendencies within Gillette’s analysis of gardens and her suggestion that gardens, by and large,
deny thought. However, I do agree that gardens muddle thinking (for better and for worse) and,
as a result, must be attended to very, very carefully in order to be generative and unsettling
spaces for thinking, research, and teaching. In fact, twinning gardens and pleasure may deter
from the very disruptions and discomforts that generate thought and ideas in gardens.

Raking is thoughtful work. Or emptying of thoughts work. Just as I was raking the last
rows, I realized how zen the work was. Erasing my footprints, drawing lines in the silty
soil, making edges and boundaries between brown & vivid green spring to life, erasing
distractions. Such beautiful, simple forms. It’s this I love & yet cannot love: Monocultures
and grids…And yet, it is what I propose to undo, unravel in the second installation. Why?
(Research Journal, July 9, 7pm)
In designing a grid as the formal structure of Threads sown, I created and was caught up in a landscape design that allowed for the pleasures of interpretation (Herrington, 2011) but was uncannily and disruptively un-gardenlike in arousing sensations of being unsettling while still uncannily pleasurable (see Figure 30). However, it was not until the grid started to fall apart that the depth of my attachments to the grid became painfully apparent.

**The grid falls apart**

![Building and sowing the gridded classroom, Threads sown](image)

Figure 31 – Building and sowing the gridded classroom, *Threads sown*

While sowing a grid in a garden may sound straightforward, my lack of practical experience in landscape architecture or surveying meant that I was naïvely unprepared for the challenges of grid-making in a space that had few fixed reference points. Although this realization may seem self-evident, all my years of reading and studying postcolonial literature, cultural geography, and learning basic school mathematics did little to teach me about the material-discursive meaning of
grids imposed on landscapes. Every grid I had ever drawn had been on a small sheet of paper placed on a rectangular desk. This experience of plotting a grid with dimensions larger even than my small measuring tape suddenly impressed upon me what it meant for Greek mathematics to become a powerful tool of colonial imperialism.

As the desks or flax plants began to grow (see Figure 31), however, my desire to maintain a perfect grid overcame my initial critical standpoint and became both a source of aesthetic pleasure (heightened when I documented the site through the lens of the camera) and a constant source of farmer worries: would wind, rain or other factors (many of which I blamed on myself) cause the flax plants to lodge? “Another sleepless night worrying about the flax. Will it lodge? Should I tie it up? It lodged when I watered yesterday to help along the cover crop. And all the petals fell to the ground” (Research Journal, July 18, 2012). Sure enough, heavy rains wreaked havoc on the grid and I was devastated: The project was a failure (see Figure 32). It was on that particular day of the grid collapsing that I finally realized how strongly I was holding onto a pattern that really made no sense. Ingold (2013) describes the impact of rain on human conceptions of geometry perfectly:

Within the formal world of the architectural design, rain is simply unimaginable. Falling raindrops, and the rivulets of running water to which they give rise when they impact upon surfaces, cannot be part of any plan. Nor is the geometric purity of the modern architect’s conception to be clouded by prospects of stormy weather. But with its clean lines, sharp angles and flat surfaces, any building constructed in accordance with this conception is almost bound to leak. (p. 48)

In fact, it was while I debated internally how far I was willing to go to retain the grid (should I tie up the plants? Stake them? Build wooden frames to hold them?) that I reminded myself that this was a research project above everything else that might be happening in the garden. And so, I took a step back and began asking myself: Why am I so committed to the grid? Why does the grid grip me in a way that seems to overpower my ability to think alongside the grid rather than simply within its grasp? There are many possible answers; however, it became clear that once I had committed to a grid design, it was nearly impossible to imagine alternatives beyond this pattern. It was all or nothing, or so I thought.
As I explore later in this chapter, another part of the answer involved that it was not just a grid I had planted but also a space recognizable as a classroom, and that I had students coming in a few days who would see my messy classroom during the research event for *Threads grown*. Whenever guests came to the installation, I would put in a flurry of gardening activity, weeding and raking prior to their arrival, trying to uphold the internalized expectation of what a classroom should look like. I was also committed to persevering with an aesthetic form that really made no sense ecologically or even in practical terms. Cosgrove (2008) acknowledges the pernicious nature of the grid in the ways in which Bacon, Kepler, and other contemporary scientists and thinkers have attempted to ascribe symmetry and order to the geography of the earth: “If such mystical musings seem more than a little dotty and ineffectual, the fascination with order in the global geographic pattern displays a tenacity that can be pernicious” (p. 23). This experience with the tenacity of the grid in the garden was likely the strongest pedagogical moment of this entire research project.
The difficulty in critiquing the gridded garden is the question: What lies beyond? If the gridded school garden suggests heightened fragmentation, separation, individualization, order, control, and territorialization, then collective gardening might result in other patterns or even in more random spatial arrangements reflecting particular social and ecological conditions and relationships. However, as this brief review of debates in landscape architecture suggests (see also Chapter 2 and the history of school gardens), such dualist thinking essentializes a dualism between nature-based design and formal, humanist designs. Grids are powerful facets of our everyday lives; to go beyond these designs and sow utopic non-grids as ideal relationships between people and land is to deny the educational encounters in which we realize that we might love the very grids we—theoretically—espouse to hate. Now, love and hate are strong words that hint at yet obscure also other complicated responses such as: commitment, possession, fear, worry, obsession, anxiety, exactitude, and so on that are enmeshed with the unsettling pleasures that gardening the grid has sown. Simultaneously loving and hating the grid, as I do in Threads sown, may be openings for a form of criticality, which, as Rogoff (2008) suggests:

is precisely in the operations of recognising the limitations of one’s thought, for one does not learn something new until one unlearns something old, otherwise one is simply adding information rather than rethinking a structure. It seems to me that within the space of a relatively short period we have been able to move from criticism to critique to criticality—from finding fault, to examining the underlying assumptions that might allow something to appear as a convincing logic, to operating from an uncertain ground which, while building on critique, wants nevertheless to inhabit culture in a relation other than one of critical analysis; other than one of illuminating flaws, locating elisions, allocating blames. (pp. 99-100)

In conclusion, in sowing a grid in an outdoor classroom/school garden installation, I wonder if I am learning to inhabit the grid differently. This process of unlearning and rethinking the structures, patterns, and geometries that exceed the rational, gridded, humanist subject is risky and full of difficult attachments that, as Rogoff recognizes, involve “the dynamics of loss, of giving up and of moving away and of being without” (p. 99). What might the garden geometries beside the grid look like? Teach like? Grow like? Love like? A circle of fireweed rhizomes, linen webs, and twisted knots of school garden histories and memories are the gifts of the grid, and their geometries and topologies are still unfolding…
Frames, enclosure, nation, territory

My attachments to the grid, however, exceeded Threads sown, and reappeared as at the end of Threads grown as I harvested the flax plants and prepared them to process flax into linen thread. It was early September 2012, and the student gardeners and I had harvested and dried the flax plants. Relying on books, particularly Linda Heinrich’s (2010) Linen: From flax seed to woven cloth, I spread the dried flax plants out on the grass at The Orchard Garden to field or dew ret, a process by which the flax slowly decomposes (rots) the pectic substances in the flax through the interaction with moulds, warm air, moisture, and oxygen. Depending on the weather (field retting requires very heavy dew or rain), field retted flax must be tedded (or turned) at least once to ret the flax evenly. In Heinrich’s (2010) book, the following statement was terrifying for me, inexperienced as I was in the arts of processing flax to linen, and the amount that was at stake in ensuring that I had linen thread to continue with the installation series: “While under-retting leaves the fiber rough and lustreless…over-retting is disastrous—the fibers as well as the woody core break. Nothing can be done to recover the loss” (p. 23). In the end, I experimented with two batches of flax. The first was under-retted, while the second slightly (but not disastrously!) over-retted. In the end, however, it was not retting itself that caused me the greatest anxiety but the unexpected interferences from an unseen person that once again reminded me how grids are powerful aesthetically (as I explored above) but also politically as frames to demarcate territories and nationalities.

Four times during the drying and retting process, I encountered the invisible work of someone coming to the garden and cutting flax seed bolls off of the flax plants. My first response was swearing, anger, and concern that these interferences would ruin my research project. This was quickly followed by the act of enclosure: I locked up some plants that were already dry in a shed, placed a rectangular string fence around the plants drying in the field, and hung a series of hand-written signs within the now-enclosed space (see Figure 33): “Please stop cutting and removing the flax. These plant are for linen and part of a PhD research project.” In my research journal, I struggled to understand my own responses to these intrusions.40

40 See my September 24, 2012 blog post, “Enclosures and Trespassers” (Ostertag, 2012)
For the third time, I immediately noticed the now-familiar chopped-off heads of my flax f(r)iend’s efforts: ‘What?’ (some swearing). ‘Idiot,’ I mutter. ‘Why do this? Just go to the store to get some seeds.’ Last time, I noticed some sheaves cut and a whole stook of drying flax missing. So I moved it all up to the office. The previous time, I noticed cut sheaves in the bundles waiting to be retted, stored under the awning. At first, I wondered if perhaps someone from our team had cut the seeds off to save seeds (not logical but such was my thought). The second time, when the whole stook was missing and more was cut, I began to question in earnest: Who? Why? (This prompted me to move the pile to a less prominent location). My prejudices and guesses lead to the following (in)conclusions: An Asian woman, gathering seeds to eat/plant/use as medicine. I try to think: Is this a racist thought? Could I even communicate with this person? How territorial do I feel? Violated? What are the implications of these responses in a context of (multiple/layered/heterogeneous) settler-colonialism? Will my sign—now posted alongside the retting flax—help? Be intelligible? Arrive too late? I like that I veiled an arts-based project with an aura of scientific validity…Why? Why? And why does this whole episode feel so troubling? All along, I’ve worried about my skills, the weather, the seeds…and then an invisible hand changes things,
stealthily (Evily? Intentionally? Uncaringly?). Territory infringed. Enclosures breached. The other enters (palisades, warriors, protection, fear…we know this myth from the Pedagogy of the fort). (Research Journal, September 12, 2012)

Again – someone returned & cut & stole flax. Why? Who are you? As another student gardener said, “This is someone who recognizes flax plants & knows what they’re for. Not just anybody.” And so, I invoke what I know: words on paper and walls/fences/lines. I speak with everyone at the garden – please keep your eyes open! The remaining flax (seed + linen) I’ve locked in the shed. Just in case I lose it all…It’s a surprising, shocking, exciting turn of events. I want to meet this person! You are a collaborator in this performance. You decentre me, encroaching, invisible, upon this work. Why? What does it mean to you? Does this matter? Gardens: Enclosures (-of mind) yet create new possibilities for thinking, becoming…—trespassing. Disturb sedimented thought. The opposite of enclosure, not not opposite (open) but what enclosure invokes: fear of trespassing. Vulnerability. (Research Journal, September 19, 2012, 2:30 at home)

What was going on here? As I got over the initial emotions of anger and possessiveness, I realized that attending to my own response was a fascinating, disconcerting, and necessary source of data in this arts-based research. Aware of my actions, critical of my racist assumptions, and yet seemingly unable to act otherwise, I enclosed a space around the flax retting in the field and placed the defenceless plants under the power and authority of signs, written in English with references to the importance of academic research. Whiteness and the pedagogy of the fort (Donald, 2012) marked my internal debate, as I imagined this invisible Other to be an Asian woman, knowledgeable and resourceful in seeking out edible and medicinal plants in the local landscape. Eventually, I acknowledged in my research journal a shift, “I want to meet this person! You are a collaborator in this performance. You decentre me…encroaching, invisible, upon this work” (Research Journal, September 19, 2012). While an arts-based reframing of these tensions offered me a more hospitable, performative framework for understanding and accepting intrusions as collaborations, my initial responses are so uncomfortable I hesitated for a long in including them as a storyline in this dissertation. When threatened by the invisible Other, the etymological roots of gardens as enclosures became viscerally tangible as the bounded territories and possessions they are, invoking nation, language, and knowledge to mark this territory as mine, as valuable, as English, as quasi-scientific (the signs did not claim: “This is an art project!”) and, thus, within the dominant settler material culture. As Tuck and Yang (2012) write, “In the process of settler colonialism, land is remade into property and human relationships to land are restricted to the relationship of the owner to his property” (p. 5). Significantly, this need to possess land as property occurred on a campus landscape, purportedly
a public space belonging to no-one and accessible to all, although as my experiences of attempting to garden on this vast campus suggest, only very particular activities and bodies are sanctioned on the university’s sacred lawns.  

The frame of the nation, particularly the colonial nation-states that emerged alongside and via the globalization of the grid, relies on the notion of terra nullius, the concept of wilderness or undomesticated land as devoid of human presence and control, which during colonialism extends also to “wild people” living outside of civilization (Apffel-Marglin, 2011, p. 26). Citing Jack Forbes, Apffel-Marglin (2011) noted, “Nature and nation have the same root, being derived from the past participle natus, borned, came ‘nat,’ which with the suffix ‘ura’ gave natura or nature” (p. 26). Forbes continues on, explaining how being borne comes to mean “that which is to be acted upon” (p. 26), including land, non-Europeans, women, animals, plants, and other objects. As Threads sown is the birthplace of this installation series and arts-based research, I am filled with sadness and ethical misgivings that the seeds of the research were born into a grid of colonial control greater than my ability to engage regeneratively with loving—albeit uncertain—criticality. However, Ruitenber (2005), Butler (2010), and Grosz (2008, 2011) offer ways of understanding the frame that are as unsettling as they are necessary for ethical engagements with life.

While a university is officially a public institution and public land, access to these spaces is tightly controlled, and a campus architecture of walls, towers, and sacred green lawns frequently enforces these boundaries. If becoming teachers together implies the creation of community that extends to the more-than-human, then understanding the etymology of community is helpful since, once again, we encounter another word that creates frames of insides and outsides. Drawing on Caputo (1997), Ruitenburg (2005) writes how, “communio is a word for a military formation and a kissing cousin of the word ‘munitions’; to have a communio is to be fortified on all sides, to build a ‘common’ (com) ‘defense’ (munis), as when a wall is put up around the city to keep the stranger or the foreigner out” (p. 217). In responding to the trespasser stealing,

---

41 When we first began approaching campus planning to locate a site for our teaching and learning garden (prior to establishing a partnership with Land & Food Systems at The Orchard Garden), we proposed setting our garden on the grassy boulevard in front of the teacher education building. The response from the campus planners was a vehement no: “The lawn is sacred from one flag pole to the other.”
cutting, and displacing the flax plants at The Orchard Garden, I attempted to frame the space as an academic space, assuming that the intruder was not part of this community. Words and references to ‘research’ were part of my munition to protect this territory that I had the privilege to stake out and claim. Gradually loosening my grip on the need to patrol the boundaries of my territory, I realized that these mysterious visitations, rather than trespasses, were gifts and teachings for a project that ultimately was not about usefulness and productivity but about research and creating new sensations and relations. Grosz (2011) asserted,

Art is the means by which nature deviates itself from givenness, comes to function in other terms than the useful or the manageable. It is thus the space in which the natural and the material are the most attenuated, rendered the most visible and tangible for living beings. (p. 172)

Losing some flax to a visitor to the garden could also be a way to learn how to build what Caputo (as cited in Ruitenberg, 2005,) called a weak community, since this “demands considerable strength, for it would be required to maintain a sense of certain community even while welcoming the stranger, to remain master of the house while making the other feel at home” (p. 218). Rather than abolishing the frame, it is from within a weak community that Ruitenberg (2005) believes a radical pedagogy of place matters for education.

Becoming teachers together within a pedagogy of enclosures reminds us simultaneously that enclosures are fraught with material and discursive difficulties (such as the colonial imposition of the grid on lands and people across the globe) but that, nevertheless, we always already inhabit frames. The frame of the earth is the greatest frame of human existence, inasmuch as considerable human creativity and the earth’s resources are currently being mobilized to escape this frame. Escaping this frame Arendt (1998) describes as the modern world’s alienation, “its twofold flight from the earth into the universe and from the world into the self, its origins” (p. 6). However, while Arendt (1998) writes of the boundaries of the earth as frames modernity is attempting to escape, these earthly frames are themselves highly dynamic. Particularly within the context of the Anthropocene, planetary boundaries that regulate the earth’s systems (i.e., the relationships between climate, water, nitrogen, carbon, biotic life, and so on) are now increasingly shaped by human life (Steffen, 2011, p. 859). These planetary boundaries, however, are not visible to modern science until they have been passed, and thus the precise location of
thresholds that can dramatically alter the conditions for all life on this planet cannot be known with certainty.

Frames are also key to research methodologies, which essentially establish frames through which particular questions can be explored, interpreted, and communicated. Traditional positivist research methodologies set up a frame that positions the researcher outside of the frame of the research situation. Arts-based research, particularly in the case of this research that seeks to explore how human culture is framed within the earth and not outside it, plays with frames to create new sensations, new relations, and new ways of knowing and being in the world. Grosz’s (2011) writing on art, as part of human and nonhuman animal expression, recognizes the fundamental significance of frames: “Deleuze understands, and on this point is in remarkable and rare agreement with Derrida, that the first gesture of art, its metaphysical condition and universal expression, is the construction or fabrication of the frame” (Grosz, 2011, p. 10). Through arts-based research, site-specific installation art has allowed me to call into question the frames that have naturalized and become transparent in our understanding of the relationship between education and land or, more precisely, schools and gardens. The wooden frame around the gridded classroom desks of Threads sown and the fence and signage surrounding the retting flax plants, therefore, become framing devices that could allow me to trouble my attachments and briefly sense the difficult frames that shape the relationships between education and land.

The vulnerabilities I sensed as a gardener sowing the seeds of a rigidly gridded pattern on the blank slate of the soil and when an invisible ‘visitor/intruder’ cut seed bolls off of the retting flax remind me that enclosures only create illusions of safety and belonging. To bring this closer to experiences of schooling, the enclosed yard of a school can create this sense of security, outside of which danger lurks: “During school hours, within the boundaries of the fence we were safe from harm and the rest of the world. School was a distinct place, and this landscape seemed to enforce it” (Student Teacher, Field Notes, November 20, 2012). When I talked with student teachers about their experiences of schoolyards, the fence was repeatedly the most significant framing device used to create a space of presumable safety for children. Ultimately, it is the figure of the teacher—so often a lone, female body—in the field who creates, surveys, and sustains these boundaries both between the inside/outside of the school community and inside/outside of the school buildings. As another student wrote: “This schoolyard was teaching
me that the land around me was barren, but mouldable. That inside and outside were very separate places. Outside was mud and dirt and snow. Inside was clean shoes and polished floors” (Student Teacher, Field Notes, November 20, 2012). As a female researcher, teacher, and gardener, I never expected that deeply rooted aesthetic and moral commitments to order and cleanliness, both inside and out, would figure so centrally in framing *Threads sown*. A queer, feminist unravelling of these material and discursive performances reminds me, once again, how difficult it is to frame territory differently.

**Sowing queer, feminist, postcolonial seeds in the Anthropocene?**

I feel like a dumb girl. All these workers walking past in their safety gear, and me in the middle of a dusty rectangle of dirt, trying to measure straight lines. All by myself. What’s $\sqrt{72}$? How to draw a square in space? What is Euclidean geometry? Lines…so frustrating! I should be able to do this, right? Everything in this culture depends on right angles + straight lines…Yet when I try to measure these lines in the garden, I can’t get 2 x 27’, 2x 46’. I feel like I’m floating in space with no fixed reference point. And does it matter? Should the classroom be ‘square”? The plants won’t ‘obey’ the straight lines…they’ll droop and flop and flow as they will, no matter how much I weed and straighten things up. Another compulsion. But I wanted to plant today!! The confidence of western possession of land comes from ‘our’ ability to measure a straight line in space. Or, 2 straight lines meeting at 90° in space. (Research Journal, May 11, 2012)

Sowing the seeds of a school garden installation on barren ground is powerful, gendered language, which queer, feminist, and postcolonial scholars have taught me to identify and critique as imbued with patriarchal origin stories. However, while the installation series began as a critique, the title of the series (*Threads sown, grown & given*) was not born out of this nuanced reading of sowing seeds as a patriarchal legacy. Rather, I was attracted to a linear narrative structure in which the materials and discourses of the project would be sown at the beginning of the project, harvested in the middle, then celebrated at the end. Halberstam (2011) acknowledges the importance of queer, postcolonial, black feminism “that thinks in terms of the negation of the subject rather than her formation, the disruption of lineage rather than its discontinuation, the undoing of self rather than its activation” (p.126). Instead, in *Threads sown* in particular, I unconsciously framed this research around activation and formation through my focus on seeds, threads, and lineage by literally planting flax, the very useful line of *linum usitatissimum*. Instead of complex relationships based on kinship and recognition, *Threads sown, grown & given* is
discursively framed by performances of the thread, the *fil* of filiation (Derrida & Roudinesco, 2004).

These origin stories of filiation and the patriarchal family are deeply threaded throughout western, Christian narratives set in gardens, both the Garden of Eden and the *hortus conclusus* (literally, the garden enclosed or the enclosed enclosure), considered to be an allegory for the immaculate conception and Mary’s enclosed womb within which God plants the seed of Jesus (Cosgrove, 2008). Cosgrove (2008) writes how Francis Bacon used plantations as metaphors for sowing colonial seeds in his essay ‘On Plantations:’ ‘Plantations are a way, [Bacon] says, for an ageing world to be renewed and to beget more children ‘in pure soil’. And they are to begin as gardens within a landscaped imagined as almost Edenic’ (p. 58). Once the plantation grows ‘then it is time to plant with women; as well as with men, that the plantation may spread into generations’ (p. 59). Parallels between women’s bodies, fertile soil, terra nullius, and reproduction are material and discursive performances of colonialism, patriarchy, and Christianity; however, this desire to control women’s bodies and the land is not a universal nor essential condition of human/land relationships.

Kuokkanen (2007), for instance, suggests that controlling nature is not rooted in farming but in Christianity. Unlike Christian creation stories based on control, Indigenous origin stories predicate radically different social systems and human/non-human kinships. These different relationships, particularly through different agricultural practices and aesthetics, made it virtually impossible for colonial Euro-Canadians to recognize the vast extent of First Nations’ agriculture in North America and around the world. In places where polyculture is (or was) common, gardens might look like disorderly messes in desperate need of “improvement.” Moreover, even in contemporary times,

shifting cultivation is an exceptionally complex and hence quite illegible form of agriculture from the perspective of a sovereign state and its extension agents. The fields themselves are ‘fugitive,’ going in and out of cultivation at irregular intervals—hardly promising material for a cadastral map. The cultivators themselves are often fugitive as well, moving periodically to be near their new clearings. Registering or monitoring such populations, let alone turning them into easily accessible taxpayers, is a Sisyphean task. (Scott, 1999, p. 282)
Paralleling the orderly landscape of the cadastral map, creating order in classrooms, through clean shoes and polished floors, as the student above recalled, is one of key ways in which bodies and learning are made legible for efficient supervision and surveillance. In a garden, similar aesthetics are often at play in the domestication of our relationships with the land through the cultivation of barren, weed-free soil.

As we have already seen previously, order in the school garden echoes the disciplinary and moral lessons desired within the classroom. With the arrival of progressive education reforms...
toward the turn of the 20th century, the link between indoor and outdoor aesthetics of classrooms (and clearly the author is also referring to people’s private homes) was of vital moral importance:

A neat and tidy room, with simple and cheerful decorations, will be a constant object-lesson to every eye. A room with decrepit furniture upon an unclean floor, and with walls and ceiling broken and stained, will teach its lesson, too, in taste and morals, but it will be quite a different one. If the schoolroom can be made to give lessons in cleanliness and order and taste, then surroundings of the building should be arranged to enforce the same lessons. (“School Grounds,” 1889, p. 205)

In today’s context, questioning women’s role in upholding this moral discourse and material performance of housekeeping in classrooms and in landscapes may seem like an out-dated critique or an exaggerated description of a necessity—what’s wrong with neat schoolyards, gardens, and tidy classrooms, anyway? With Threads sown, I was confronted so viscerally and visually with my deeply internalized desires for order, cleanliness, and domesticity that, although I know these desires conflict with my theoretical positionings, they could not be easily swept away (see Figure 34). This desire for visual signifiers of order comes to me in part through a lineage of women in my family. My Irish Catholic grandmother raised eight children in a tiny house wherein the walls were cleaned weekly, the floors carefully polished, and, outside, my grandfather maintained an immaculate green yard to edge of the swampy bush. My mother haphazardly continues the tradition, rushing to clean the house and organize the shoes at the front entrance whenever visitors (particularly her own mother) are expected. I am not unlike my mother and grandmother, at home and in my teaching spaces. At The Orchard Garden, the mess and disorder of the garden (not just my installation space) distressed me every time I went by the garden. No legitimate project should look this, I worried, even though there was little I could do to change the situation. A student run project with little budget and even less hierarchy does not generate conditions wherein cleanliness and order are top priorities, easily enforced. And so, the mess lingered (see Figure 35).

Yesterday, when I watered the garden, I saw a dead rat on the patio close to the water spigot. As I walked through the garden, setting up hoses, I was constantly pulling out thistles and other large weeds setting seeds. A narrative in my mind, that little voice: ‘They really will shut this place down because it’s so messy. It’d be great to get a crew of people out to really clean everything up before the garden party on the 25th. I could do it if I had more time in the garden. I wish the gardeners would learn to pull weeds more, not weeding but just moving through the space and weeding as you go…’ An endless stream of ‘order, clean, what will people think?’ (Research Journal, June 15, 2013, 9am at home)
In addition to my Irish-Canadian context, I have the difficult but necessary obligation to recognize the link between order and genocide that haunts me from my German lineage. As Barad (2011) reminds us, Heinrich Himmler drew on images of cleanliness and order in his dehumanizing discourses that separate humans from nature:

Antisemitism is exactly the same as delousing. Getting rid of lice is not a question of ideology. It is a matter of cleanliness. In just the same way, antisemitism, for us, has not been a question of ideology, but a matter of cleanliness, which now will soon have been dealt with. We shall soon be deloused. We have only 20,000 lice left, and then the matter is finished within the whole of Germany. (as cited in Barad, 2011, p. 122)

And who is most responsible for maintaining cleanliness? Women. Taught Rassenkunde and eugenics in the school garden, Nazi educational thought attempted to instil that women and girls were key in maintaining the purity of German bodies and blood. School gardening during Nazi
Germany was particularly determined to use gardens as teaching tools to prepare girls to become mothers.

Drawing on Walder’s (2002) historical research, it is clear that Nazi education differentiated between girls and boys. The girls’ biology curriculum resembles boys’ until the 5th grade; however, the content was designed to reflect the unique spiritual qualities of girls and the closer emotional connections between women and nature. Girls’ womanly caretaking work should be awakened through observation and practical experience with plants and animals, especially by looking after nursing babies and small children. Lessons on heredity, race, and society were considered particularly important for girls. By the 5th grade, growing girls must realize their roles as the keepers of the Volkskörper (the people’s body), caretakers of the family, teachers, and carriers of valuable ancestry. The lessons must make clear that a Volk falls apart when its women lose the instinct to protect themselves against foreign blood (my translation, Walder, 2002, pp. 365-366).

Inasmuch as I tried to stifle and relinquish my attachments through academic critique, I was consistently unable to go beyond my obsessions with visibility, legibility, legitimacy, and fears of surveillance at The Orchard Garden; however, contrary to my fears, the garden project continued to flourish, amidst—and perhaps because of—the mess and chaos. Now, relocated to a new garden location at Totem Field (UBC’s field research station on campus), The Orchard Garden is contained within far stricter rules for order, and has already within its first year become a pleasant and welcoming garden to enter. At the new site, we could also leave behind the years of accumulated and unclaimed trash at the old garden and in the old office space, and start with a blank slate at our new rectangular plot cut out of the excessively mown lawns that ensure optimal (i.e., weed-free) experimental conditions to study plant growth (see Figure 36). Part of an orderly existence, it seems, is to erase history and material connections to trash and decay.
As much as I hated the weeds and disorder at the old garden and within my installation series, attending to this dis-ease and living alongside this discomfort has been generative. Without a utopic or anarchic reversal of the normative valences within the binary of order/disorder to value disorder as the generative, I have come to recognize that patriarchy, colonialism, heteronormativity, and other oppressive material and discursive intersections have been threaded deeply into my desires and aesthetics, and that these shape my relationship with land and education. Ultimately, an arts-based research project with an educational garden embodies knowledge practices that Halberstam (2011) calls for that are less efficient, less legible, less ordered, less marketable, less results-based, and more complex, messy spaces for organic profusion, subjugated knowledge, and improvised creativity.

Threading discursive and material implications between sowing seeds, growing gardens, education, raising children, and natality creates complicated possibilities for understanding what it means to become teachers, particularly as these materials and discourses centre around
gendered and racialized spaces and bodies. At The Orchard Garden, we have always been aware that the team of students who works in the garden is largely composed of women, and we have actively sought men and women of colour to volunteer and work with the project (in 2014, two male students began working and volunteering with the project, both with agricultural experience from their respective countries, Ghana and Bolivia, and our female partners have had connections to Afghanistan, Romania, Palestine, Mexico, and Iran). Although the stereotypical image of the plaid-shirted, coverall-wearing Farmer on his tractor surveying his crops is mostly closely associated with agriculture, around the world, gardening and agriculture remain largely women’s work and are closely linked to the domestic spheres of the home through cooking and food. Childcare, healthcare, schooling, and education are domains of women’s work or are even considered to be extensions of women’s “motherwork” (Lather, 1994). In linking gardens with schooling, these two very domestic spheres of life are brought to the fore; however, we tread a fine line between reproducing social and ecological inequalities and nurturing alternative possibilities for children, particularly girls and women, to challenging and creatively resisting oppression.

Sowing unruly seeds, awkward housekeeping, non-familial kinships (Haraway, 2004), and abundance within the limits to growth (including its opposite, death) are the unrecognizable possibilities that a material feminist practice of teaching/gardening can cultivate. These performances of unruly housekeeping, gardening, and teaching all challenge fixed notions of woman, home, place, Nature, land, and classroom as the static backdrop from which human culture and community emerge. Gedalof (2003), drawing on the work of Luce Irigaray, describes this as “a recurring tendency to erect the realms of culture, the polis, civil society, and production upon the necessary-but-inert ground of nature, the private, the reproductive sphere” (p. 104). As such, to sow seeds and to be born is not only about origins and provenance, but “‘birth’ is perhaps a question of the future and of arrival, a newly arrived question” (Derrida & Roudinesco, 2004, p. 40). In this research, Threads sown, grown & given created new spaces for me to consider how deeply some modernist, colonial, capitalist, and patriarchal threads are sown into my relationships with landscape and the implications of this for education. Unpredictable arrivals—such as rain and thieves—disrupted the orderly linearity of the project, allowing new questions and directions to emerge.
Sowing unruly seeds and disruptive housekeeping (see Robinson, 1980) are necessary as we create, respond to, and resist the Anthropocene—the Age of Man in the world as garden. Within and awkwardly beside these enclosures, contriving—an inventive, twisting, imaginative improvisation with knowledge, metaphors, matter, and discourse—has been how this arts-based research with a teaching garden has generated new frameworks and relationships within these difficult enclosures. As we increasingly turn the earth into a garden, contriving enclosures that generate “questions of connectivity and boundaries” (Barad, 2003, p. 825) are unruly yet ethical modes of gardening and teaching with land. Through this shift, enclosures are constraints but they do not determine the future; the future is open (Barad, 2003). Rather than blank slates, stories (like gardens) can become folded territories that are always more than their enclosures, opening up for new material and discursive relationships to emerge. Stories and history, as King (2014) suggests, are powerful ways to understand “Indian” and “white” relationships toward each other and with the land; however, “sometimes a close reading of history is helpful in understanding the question of land, and sometimes representative stories will do just as well. Personally, I prefer stories” (King, 2013, p. 227). The stories that have emerged from doing my homework via Threads sown, grown & given have not been pretty, exotic, glorifying tales of truths uncovered but rather messy métissages of grids and gardens and a wild profusion of unruly weeds sown beside the orderly frames of what it means to teach with land.
Chapter 7 – Gathering the threads

What has been gathered through this garden- and arts-based research project, *Threads sown, grown & given*? What has come together? How has a little patch of garden—now turned into a giant construction/destruction site—shaped how we become teachers together? Through the installation series at The Orchard Garden and the three different research events with student teachers, three main threads were sown, grown, knotted, and given to explore the research question: *How do we (humans and more-than-humans) become teachers together?* Specifically, the ‘we’ in this particular research includes the entanglements of (a) a garden becoming a teacher; (b) student teachers becoming teachers; and (c) my personal journey of becoming a teacher, scholar, and teacher educator.

In this research, I have attempted to research, think of, and practice teaching relationally within material feminist and posthumanist theory, as well as beside (Sedgwick, 2003, see also Sundberg, 2014) Indigenous frameworks of ethical relationality (Donald, 2011) and this scholarship’s diverse and unsettling stances on decolonization and settler colonialism, particularly in relation to land (Tuck & Yang, 2012). Researching becoming teachers together, framed relationally, offers ways “to understand and talk about the nature of reality in a way that acknowledges that to be alive and to inhabit a body is to be continuously and radically in relation with the world, with others, and with what we make of them” (Ellsworth, 2005, p. 4). This relational ontology creates spaces for becoming teachers with gardens where nature, land, and materiality are reconceptualized, not as passive resources or social constructs but as agentic and entangled into human practices of knowing (Barad, 2003). This has led to what has variously been described as a new materialist, ontological or onto-epistemological turn in social studies (particularly in material feminism and posthumanist theorizing) that “define the human, nonhuman, technological, and natural as agents that jointly construct the parameters of our common world” (Alaimo & Heckman, 2008, p. 5). Drawing on Descola (as cited in Candea, 2010) and Viveiros De Castro (as cited in Candea, 2010), Candea (2010) explained how the ontological turn, which challenges the linguistic emphasis on representation, is “a critique of Euro-American epistemology and, in particular, of the foundational distinctions between nature and culture, humans and nonhumans, associated with a call to take seriously a plurality of worlds
and not just of worldviews” (p. 243). Arts-based research methodologies enabled an alternative relationship with research other than that of critique, in which the tensions, failures, and frames of difficult knowledge (Pitt & Britzman, 2003) and shame (Werry & O’Gorman, 2007) could be attended to with loving criticality (Rogoff, 2008).

Through the course of the installation series and writing the dissertation, arts-based research emerged not only as a generative research methodology but became a way of considering the practices of teacher education differently. My second research question explored these possibilities by asking, “What possibilities do arts-based research provide for teacher education?” More specifically, I consider the conditions for researching and engaging ethically with teacher becomings that are made possible through site-specific installation art practices and theory, particularly in the context of school gardening. Contemporary art theory (Bishop, 2005, 2012; Bourriaud, 2002; Kester, 2011) contributed extensively to developing and writing alongside the installation series as well as turning my attention toward familiar frames—classrooms, gardens, bodies, the teacher, photographs, the neoliberal academy—and engaging in practices of disobedient seeing (Butler, 2010) to unsettle and possibly even decolonize (Gaztambide-Fernández, 2012; Kuokkanen, 2007) these frames. Lingering beside this tension between longing for becoming teachers together and the ever-presence of frames—even within the etymology of the word garden—led to the emergence of what I call a pedagogy of enclosures.

Togetherness, however, is one of the more complex notions within this dissertation, as I struggle with the ongoing legacy of the solitary teacher, with the ever-present centrality of the individual ‘artist’ in creating the installation series, and the continued separation of nature/culture that reifies gardens as natural, idyllic, peaceful escapes from human affairs. Occasionally, for instance, while ‘becoming a spider’ while spinning flax to linen in the basement of the teacher education building and gifting fireweed blossoms on the doorsteps of the campus planners’ office, I sensed how ethically engaged material practices (Alaimo & Hekman, 2008) might unsettle the nature/culture binary that is integral to the modernist identity of the rational, solitary teacher/artist. However, these moments of making and correspondence (Ingold, 2013), while offering insights into the possibilities for the notion of the garden-as-teacher, remain entangled in particular historical and discursive frameworks that I could not go beyond.
Can there really be a ‘we’ that extends to the more-than-human, when even forms of solidarity between humans are constantly torn apart by difference? As I discussed in Chapter 6, inasmuch as I theoretically critique colonial, patriarchal, and capitalist relations to soil and land, these remain deeply enmeshed in my situated knowledge and practices of gardening and teaching. Student teachers and especially Jeannie Kerr, my closest collaborator and most generous gift to this project, also encountered these enclosures. After the research event in August 2012 with Threads grown, Jeannie talked with me about how she left the garden thinking,

“I’m so colonized!” My group weeded in the Mayan patch [a small plot outside the installation space planted with corn but not in rows] and I thought, “I know how to weed—look for the rows and then pull out anything that’s not there.” And then I started to realize this is a whole different epistemology, and I don’t have a clue what it is. I have completely got the colonial mindset in terms of weeding. This [Mayan] garden is completely relational, not atomistic. So, for me, the layers keep going. Because I’ve started this whole much more cognizant reorientation on decolonizing epistemologically, and practically, and socially. And you think, “I’ve got it!” But then there’s another layer. You didn’t think about gardening, did you? (Jeannie Kerr, Interview, August 8, 2012)

Unsettling and reconfiguring human and more-than-human relations is difficult work for gardeners, artists, settlers, and teachers since both our language and material practices are threaded with oppressive histories and difficult knowledge. Transforming how we become teachers, for instance, is difficult since, as Pitt and Britzman (2003) suggested, “One key difficulty is that school memories do not just invoke relations with authority but also repeat one’s own childhood helplessness, dependency, and desire to please” (p. 760). Throughout Threads sown, grown & given, the desire for conformity and the tension between freedom and constraint are ways in which the pedagogies of enclosure are always present in our teaching relationships.

As this research and the difficult history of gardens suggests, gardens have taught about and gathered together everything from eugenics, power, belonging, health, and community to cultural assimilation, cultural loss, loneliness, hunger, and isolation. The German school garden during the National-socialist regime is a beautiful and tragic example of failed coming together in the garden:

In frischer Luft und in Sonnenschein, in leichter Kleidung sollen hier [an den Dresdener Schulgartenheim des NSLB, Nationalsozialistischer Lehrerbund] unsere Kinder, große und kleine, in fröhlicher Gemeinschaft und Kameradschaft bei leichter Gartenarbeit Verständnis finden für unsere den Boden bearbeitenden Stände, abseits von den staubigen,
From the ruins of school garden history and the ruins of *The Orchard Garden*, I have considered failure (Halberstam, 2011) as a generative and radical mode of being beside these difficult enclosures.

![Figure 37 - Things fall apart, failure, fog, *Threads given*, 2013](image)

Amidst the difficulties of failure, however, lies something else, something that I sense in the photograph with the fraying linen threads spun nearly a year earlier in the basement of the education building (see Figure 37). For me, this photograph and my lived experience of that

---

42 With fresh air and sunshine and wearing comfortable clothing, our children, small and big, should work here [at the Dresden School Garden Home of the National Socialist Teachers League] in the garden—cheerful in close community and camaraderie. Removed from the many dangers of dusty and car-filled streets and squares, easy garden work will fill our children with understanding for our ancestors who worked the soil.
foggy morning⁴³ tell a story about beauty amidst solitude, about the human and more-than-human company that exceed enclosure; and even—in a way that long-term relationships with land and living things can remind us—the importance of dwelling in relationships with death and decay. Whereas schooling hides failures (when people drop out, school gardens disappear again and again, testing and ranking fail to ameliorate schools, violence at schools increases, schools are instrumental in perpetuating inequalities, and the list goes on and on), art-making practices recognize the necessity of failure as an entry point into understanding, representing, and challenging our ways of knowing and being in the world: “Just as any human enterprise is defined by what it excludes, it is a culture’s failures—quickly forgotten, repressed, buried away—which have the most to say about that culture’s beliefs and values” (Antebi, Dickey, & Herbst, 2008, p. 12).

Figure 38 - Final photograph of Threads sown, grown & given, The Orchard Garden, August 2014

⁴³ See my October 23, 2013, blog post, “Fog, Fall, and Failure” (Ostertag, 2013c).
As I write and gather these concluding threads, however, I am far, far away from the garden, the student teachers at UBC, and my fellow gardeners and friends who are now busy at the new Orchard Garden site. My last visit to the garden was on August 11, 2014, to take my final time-lapse photographs of *Threads sown, grown & given* and to witness and mourn the failure of yet another educational garden. While I took this final photograph (see Figure 38), a woman in a fuchsia shirt passed between me and the few surviving fuchsia fireweed flowers amidst the brown tumult of the garden in ruins and glanced at the mountain of earth and giant earth-moving machinery resting behind a black fence. During this research journey, I dreamed many times that the garden and installation would be destroyed but, by mid-August, the frame of the classroom was the only part of the garden untouched by the giant destruction/construction machinery, whose heavy tires had crushed the weedy garden and imprinted the soil with the ridges of their rubber treads. The old oak, cherry, and tamarack trees—familiar presences of the time-lapse series—had disappeared from the landscape and the photographic frame, their losses achingly felt like phantom limbs in the landscape. Only the old apple tree, last of the old orchard and our gathering place for hundreds of students in the garden, still stood, protected perhaps by ribbons of green and yellow plastic tape. That was long ago now, and since then the machines have surely come and dug out every remaining trace of *Threads sown, grown & given* at The Orchard Garden, but perhaps the machines came after the fireweed plants went to seed? Will hundreds of thousands of fluffy white nothings travel the wind or cling to the treads of the giant digger, growing into new life from soil that has been disturbed? I doubt it—yet, this is the hope that I pour into this dissertation, now that my time as witness and host to *Threads sown, grown & given* is coming to an end.

As a nomad scholar/gardener now living in Ontario, I am wriggling and writing my way into new places and relationships, while the threads of this project feel thin and tenuous, frayed like the few remaining linen threads that, in August, were still hanging across the doorway of the classroom after over a year of sun, wind, and weather. Like the memory webs that were still lying on the ground hidden by a mess of weeds and filled with seeds, roots, and mould, the meaning of this work remains difficult to grasp and unveil. However, as Rogoff (2008) counselled, while it is difficult to say what a dissertation is about (and to secure funding for alternative research projects), the significance of the research lies in how “the work function[s]
and what does it produce, of what effects it has in the world rather than of what existing meanings it uncovers” (p. 104). I came to the research with questions and concerns: What does it mean to teach with gardens? Can gardens teach? Can teaching with gardens reconfigure the notion of teacher—and of gardens, nature, and land more generally? How can garden-based educators respond to the difficult history of educational gardens and garden-based clichés in education? These questions were sown into the ground with flax seeds, spun into linen thread, and gifted to the garden, in the company of a multitude of human and nonhuman kin. Fireweed and flax came together in the gift-giving circle, although it is unclear that either plant will have the survival skills to beget new life (by sowing seeds or gifting unruly rhizomes or both, in the case of fireweed) after the destruction/construction at the garden to expand the corporate university and build the Orchard Commons. While I could spin endless stories, create endless frames that might negate the finality of a garden in ruins, gardening in the Anthropocene is a forceful reminder that matter matters, that life is precarious, and that, for better or for worse, human activity is knotted into these precarious frames. As Butler (2010) suggested, “The precarity of life imposes an obligation upon us” (p. 2), and obligation—that binding, twisting responsibility—is a necessity for the ethical engagements that teaching with land requires.

A pedagogy of enclosures

Concluding this research with a turn toward a pedagogy of enclosures may seem like I have reached a static, even pessimistic, impasse; however, arts-based research engages with frames through practices that can bring vitality and the unexpected to matters and discourses that may have settled into familiar clichés and metaphors. Becoming teachers together through a process of arts-based research has compelled me to inhabit educational gardens, and pedagogical enclosures more generally, differently. Gardens (particularly within European conventions) are enclosures, yes, but these enclosures can be spaces for imagination and experimentation alongside the very grids, pesticides, fences, colonialism, neoliberal ideologies, histories and other patterns of thought, movement, and materials that I might otherwise have considered escaping in designing an ideal educational garden. Experimenting with these enclosures as installations via Threads sown, grown & given and in writing this arts-based research, the very frames—material, discursive, historical or otherwise—for ethical engagements and relationships with land and people are presented as questions, demanding a response.
Committed as I am in this research in non-anthropocentric forms of togetherness and with ethical ways of living and teaching together, my interest in enclosures has been largely pedagogical. As Gaztambide-Fernández (2012) wrote,

Curriculum, like cosmopolitanism, is directed toward the self; it is about what the individual should know, be able to do, or about understanding individual experiences and fomenting an individual orientation toward difference. Instead, like solidarity, pedagogy is directed toward the relational and highlights the process by which we are made by others through and into difference. Pedagogy takes place in an encounter between subjects, who are also made—and therefore transformed—in and through the encounter as subjects. Pedagogy thus hinges on a turn toward ethics. (p. 51)

Pedagogy that is relational, process-oriented, and open to difference in the encounters between subjects (human and more-than-human) recognizes that boundary-making practices are not given, that coming together is a way of considering entanglements that

are not a name for the interconnectedness of all being as one, but rather for specific material relations of the on-going differentiating of the world. Entanglements are relations of obligation—being bound to the other—enfolded traces of othering…. What if we were to recognize that differentiating is a material act that is not about radical separation, but on the contrary, about making connections and commitments? (Barad, 2011, p. 150)

As the difficulties I encountered in understanding togetherness in this research suggest, Barad’s (2011) definition of entanglement is hopeful, since it recognizes the differences that come together in the meshwork (Ingold, 2013) of ethical obligations and relationships. While the etymology of the word garden draws me to consider becoming teachers together in terms of enclosures, entanglements, frames, boundaries, and obligations are other words that acknowledge the presence of differences, difficulties, and responsibilities when things come together. However, as Barad (2003) wrote, these intra-actions are open-ended, “constraining but not determining…. The future is radically open at every turn” (Barad, 2003, p. 826).

Specifically in terms of gardens and the difficult history of gardens, the memory bundles caught in the linen webs during Threads given are an example of a creative practice of containing the tensions within school gardening practices and history without determining their outcomes. Grosz (2008), drawing on Deleuzian and Derridean thought, recognized the relationship between art and enclosure when she wrote, “the first gesture of art, its metaphysical condition and universal expression, is the construction or fabrication of the frame” (p. 10). Furthermore, as the
The secret moment of activist gift giving with fireweed suggests, making and responding to art is political and open-ended, since it can “summon up a new kind of life” (Grosz, 2008, p. 79). To be certain, however, these considerations regarding a pedagogy of enclosures are not intended as universal prescriptions for specific teaching approaches or methods. Rather, what emerged through this arts-based research was that—particularly from the standpoint of a German-Canadian settler woman gardening, teaching, and researching within the material and discursive landscapes of an increasingly neoliberalizing academy—pedagogies of enclosures are pervasive, unsettling, and situated practices. Equally, and perhaps more surprisingly, however, is that attending to these enclosures can also generate unpredictable spaces for ethical engagements that are creative and open-ended. Thus, while the collectivities gathered in the unruly storylines of this research have been small and contained, they have taught me different ways to carefully attend to and teach beside enclosures.

The way into and through these enclosures has been to grow, spin, twist, knot, unravel, and give away a métissage of stories. The threads of this métissage—flax and fireweed in the garden, Jeannie and her students, and my autobiographical, historical, and situated practices of making and thinking—have led me down garden paths where I have tripped and stumbled over the most familiar clichés, tropes, and metaphors regarding gardening and education. Situated as this research has been at The Orchard Garden on unceded Musqueam territory during the time of the Idle No More movement, the Truth and Reconciliation Commission, and the increasing neoliberalization of the academy, one of the significant threads of this research that has tripped and unsettled this work of becoming teachers together has been the need to engage with settler colonialism and decolonization. As such, I acknowledge the ways in which I have engaged with decolonization risk becoming, as Tuck and Yang (2012) wrote, “Settler moves to innocence…those strategies or positionings that attempt to relieve the settler of feelings of guilt or responsibility without giving up land or power or privilege, without having to change much at all” (p. 10). While I cannot account for the changes brought about by the stories and relationships that emerged through this arts-based research, I can hope that—like fireweed seeds in the wind and rhizomes creeping through the soil—these are weedy, unpredictable gifts that unsettle and reconfigure the enclosures of togetherness in pedagogical places and practices.
References


Davis, B. (2013). *Shaped by the places we reason? Contrasting the rectilinearity of western educational thought with other possibilities.* Proceedings from American Educational Research Association (AERA), San Francisco, CA.


The Urban Weaver Project. (n.d.). The urban weaver project: Connecting weavers with nature. Retrieved February 17, 2015 from https://theurbanweaverproject.wordpress.com/


257


Walder, F. (2002). *Der Schulkarten in seiner Bedeutung für Unterricht und Erziehung: Deutsche Schulgartenbestrebungen vom Kaiserreich bis zum Nationalsozialismus* [The importance of the school garden for curriculum and pedagogy: German school gardening efforts from the German Empire to the National Socialists]. Bad Heilbrunn, Germany: Julius Klinkhardt.


