Solitary Spider Stories
of 'Becoming Teachers Together'

Knots Spun from an Arts-Based
Research Project with a Garden

Julia Ostertag
University of British Columbia

Abstract

The familiar figure of the teacher, alone in front of a classroom and enclosed by four walls, pervades what is possible in teacher education. What if we could decentre anthropocentric teaching practices and 'become teachers together' with other human and nonhuman teachers? Could a garden become a teacher? A plant? A spider? This article engages with these possibilities by reflecting on some difficult knots during the third phase of a site-specific installation series that was part of an arts-based research project with student teachers at The UBC Orchard Garden, a teaching and learning garden at the University of British Columbia. During this wintry phase of the project, the author spent three weeks in a basement student teachers' lounge spinning the flax fibres sown and grown at the garden into linen thread. While spinning, the author began to recognize that togetherness, particularly in the context of interrelated systemic oppression that includes colonialism and speciesism, also necessitates engaging with solitude

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Julia Ostertag created her doctoral dissertation with a teaching and learning garden at the University of British Columbia and currently resides on the shores of the Kichi Sipi (Ottawa River) in Gatineau, Quebec, Canada, and is a lecturer in the Faculty of Education at Lakehead University, Thunder Bay, Ontario, Canada, and the Faculty of Education at the University of Ottawa, Ottawa, Ontario, Canada. Her email address is julia_ostertag@yahoo.ca

and failure. Through photographs, narratives of spinning linen with a wooden drop spindle, and conversations with student teachers at the installation, this article is a knotted métissage of solitary spider stories reflecting on urgent calls for multispecies social and environmental justice in teacher education, and how arts-based researchers, teacher educators, and environmental educators can grapple with togetherness both individually and collectively.

Spinning the First Threads

A rainy winter in Vancouver is settling over the coastal rainforest at the campus of the University of British Columbia on the traditional, ancestral, and unceded territory of the Musqueam First Nations. Surrounded by images of school gardens past and present, I am sitting alone in the basement of the teacher education building, spinning rough flax fibres into long linen threads with the increasingly smooth twirls of my birch wood drop spindle. Spinning linen threads and entangled in messy material and discursive knots, I slowly and strangely *magically* feel myself becoming like a spider as I ponder what 'becoming teachers together' (as entanglements of humans and nonhumans) means for arts-based education researchers, environmental educators, and teacher education. In this article, I share some of the stories that emerged from my arts-based research, from a solitary spider spinning her web.

Threads Sown, Grown & Given:
A Site-Specific Installation Series

The familiar figure of the teacher, alone in front of a classroom and enclosed by four walls, pervades what is possible in teacher education. What if we could decentre anthropocentric teaching practices and 'become teachers together' with other human and nonhuman teachers? Could a garden become a teacher? A plant? A spider? This article engages with these possibilities by reflecting on some difficult knots during the third phase of a site-specific installation series that was part of an arts-based research project (Ostertag, 2015) with student teachers at The UBC Orchard Garden.[1]

I entitled the four-part site-specific installation series that I co-created with the garden, student teachers, and other community participants at The UBC Orchard Garden over the course of nearly two years *Threads Sown, Grown & Given*. Initially, in *Threads Sown*, I planted flax seeds in a rigid grid of 24 desk-sized plots and one larger teacher's

desk, surrounded by a rectangular wooden frame and doorway depict-
ing a traditional school classroom (Figure 1). In *Threads Grown*, the
site became a classroom for a workshop with student teachers, and the
space was completed with the addition of four canvas windows, each
depicting in black and white photographs elements of school garden-
ing history, including during the Indian Residential School system and
Nazi Germany. It was also during this second phase that I harvested
the flax plants and dew retted them outside on the grass in preparation
for spinning flax fibres into linen thread. The third phase, and the focus
of this article, I entitled the '&' phase, using the ampersand to stand
for the materials and discourses that I was spinning together into a
looping—and occasionally knotting—linen thread. Every morning for
three weeks in November, I entered the loosely defined enclosure of the
installation space (Figure 2) in the student teachers' basement lounge
and used a wooden drop spindle to spin the flax fibres from *Threads Sown*
and *Threads Grown* into linen thread. In addition to my daily spinning
performances, a class of student teachers participated in a workshop in
the installation where they learned to spin linen with homemade drop
spindles and listened to Debra Sparrow, a Musqueam First Nations fibre
artist, share stories about the intersections of land, education, colonial-

Figure 1
Flax desks blooming at The (original) UBC Orchard Garden as part of the site-
specific installation art series *Threads Sown, Grown & Given*, 2012.
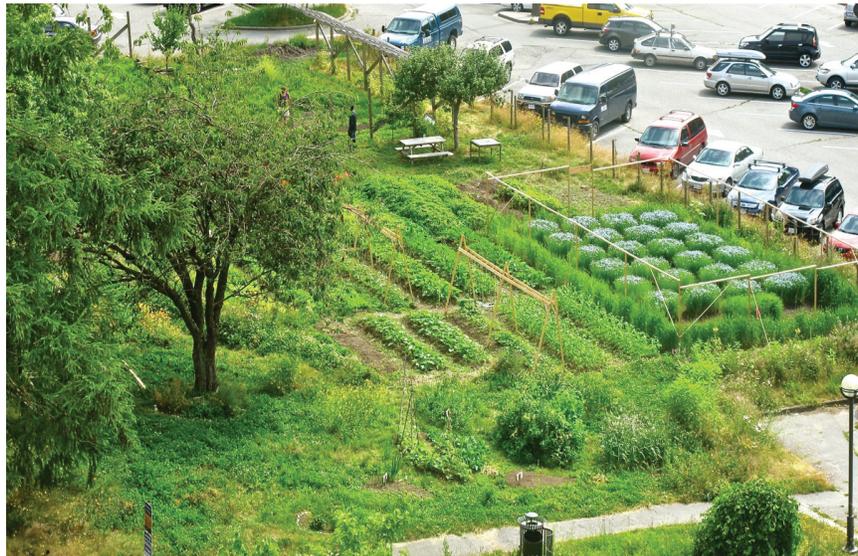
ism, and art.[2] Through spinning, conversations, reflective thinking, and journaling in the installation space, the gift-giving themes for the fourth and final phase of the project, *Threads Given*, gradually emerged. Rather unexpectedly, spiders became my teachers in conceptualizing this final installation; however, these spiders came not in their eight-legged physical materiality but entangled in human language and my own embodied practices of spinning flax to linen with a drop spindle. For *Threads Given*, student teachers participated in a springtime workshop in the garden whereby we spun spider webs throughout the original frame of the outdoor classroom installation using the linen thread from the third installation. Within these beautiful webs we knotted difficult memory bundles—like flies caught in a web ready to be eaten—made from the original canvas windows, the history of school gardens, and our personal reflections on teaching with gardens (see Figure 4).

Figure 2
Canvas windows from *Threads Grown* created the loosely defined space to spin flax fibres into linen thread as part of the '&' installation, the third phase of *Threads Sown, Grown & Given* located in the basement lounge of the student teacher building, 2012.
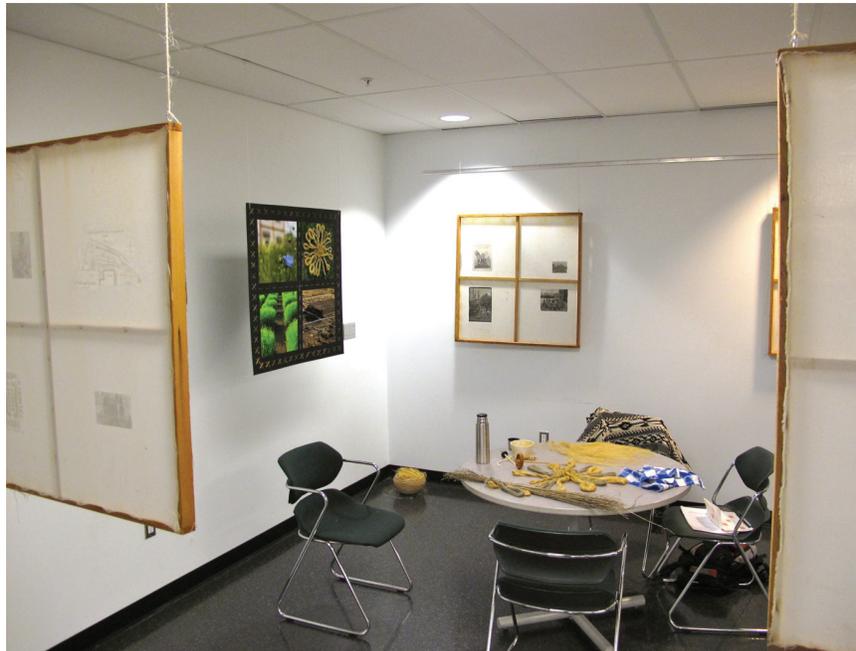
Failures of Togetherness

Although I had the privilege of many dynamic conversations with student teachers, teacher educators, other graduate students, university cleaning staff, faculty members, friends, and family members during the three weeks of the indoor installation, much of this time was also spent in quiet solitude. It was spent awkwardly (and publicly) learning to use my drop spindle to spin the rough flax fibres that I had grown and retted. It was spent longing for student teachers to come and interact with me in the installation space. However, for the most part, the student teachers in the lounge appeared to studiously ignore my strange presence, and I wrote regularly in my research journal about my feelings of failure and loneliness. Throughout the arts-based research process of *Threads Sown, Grown & Given*, I had been attempting to create artistic, experimental, and collaborative conditions for becoming teachers together, specifically exploring the three entanglements of a garden becoming a teacher, student teachers becoming teachers, and my own autobiographical journey of becoming a teacher. As I discuss in more detail below, engaging student teachers with this arts-based research, beyond structured workshops, was consistently a challenge throughout the project, and yet, outside in the garden I was never truly alone as there was always the nonhuman company and contributions of wind and weather, soil and its teeming universes underground, animals, and the garden plants themselves. In the windowless basement, however, I felt alone and "invisible:" it was not the time and place of togetherness that I had imagined. It was rather unexpected, therefore, to note that out of this performance of solitary spinning another presence was slowly winding its way into the threads of becoming teachers together: the figure of the spider. Through the practices of spinning, the materiality of both linen and language (flax, or *linum usitatissimum*, as its Latin name notes, is, after all, 'that most useful line' and one of the most ancient human fibre plants), and the creative openings afforded by arts-based research methodologies, conditions emerged by which I, alone in the basement, nevertheless sensed a decentering reorientation toward becoming teachers together.

Through these failures, these difficult knots, I was also forced to reconsider the typically linear, western narrative framework I had unintentionally framed the project with by entitling the installation series *Threads Sown, Grown & Given*. As such, the project set out a movement from a revelatory critique of school gardens and educational spaces (e.g., *Threads Sown* with its explicitly uncomfortable critiques of gridded colonial landscapes, school architecture, student-teacher hierarchies and the difficult history of school gardens) to one of reconciliation based on

notions of gift giving (Kuokkanen, 2006). What this solitary spinning taught me, however, was that in yearning for a linear narrative, I was also yearning to *go beyond* (Sedgwick, 2003) the troubles and complications of colonial and oppressive human-nature relations. Instead, like the difficult memory bundles knotted to the webs of *Threads Given*, it was time to "stay with the trouble" (Haraway, 2016), particularly in the context of teacher education, settler colonialism, and anthropocentric practices in education, even if and when these difficult knots necessitate engaging with solitude and failure.

Decentering Anthropocentrism and Individualism in Becoming Teachers Together

The practical and theoretical yearning for becoming teachers together that compelled this arts-based research is informed by the intersections of posthumanism (Alaimo & Hekman, 2008; Barad, 2003; Sundberg, 2010), feminist science studies (Haraway, 2004, 2016), ecofeminism (Plumwood, 1997, 2002), and multispecies environmental justice (DeLeon, 2010; Kirksey & Helmreich, 2010), and the ways in which Indigenous scholarship informs and unsettles much of this Eurocentric theorizing (Apffel-Marglin & PRATEC, 1998; King, 2013; Kuokkanen, 2007; Marker, 2006, Sundberg, 2014). Concerned as I am about settler appropriations of Indigenous ways of knowing, the narratives presented in this article are attempts at settler humility, of explaining myself, or, as Okanagan scholar Jeannette Armstrong suggests, of "turn[ing] over some of the rocks in your own garden for examination" (as cited in Regan, 2010, pp. 234-235). As a white German-Canadian settler, explaining my relationship to land and my interest in gardens has required turning over rocks in Nazi gardens, at residential schools, and in colonial control over land and Indigenous peoples more generally, underpinned as these are by the doctrine of discovery and notions of terra nullius. As a heterosexual, privileged, able-bodied woman, I struggle with the tensions between order and disorder, particularly with the judgment I fear when dirt, mess, and disorder are visible in my home, my classroom, and my gardening practices. This positionality shapes the métissage of autobiographical narratives in my research (Hasebe-Ludt, Chambers & Leggo, 2009) and informs the thematic foci of the installations on particular elements of school gardening history, aesthetics, and pedagogical practices.

In addition to the theoretical stances that offer alternatives to oppressive, hierarchical binaries that separate nature and culture, animals and humans, plants and animals, etc. (see Plumwood, 1997, 2002 for examples of her ecofeminist liberation framework that critiques these, and

other, binaries as systemic forms of interrelated oppression), becoming teachers together is also an engagement with (rather than a criticism of) the familiar enclosures of individualized teachers within classrooms, whether indoors or outdoors. As Britzman (2003) reminds us, the image of the teacher is one privatized by walls, both metaphoric and material, where teaching is an individual activity and "teachers are expected to work alone, without any help" (p. 63). Now, within the increasingly neoliberal climate of post-secondary education, this privatization risks increasing the isolation, competition, and hyper-individuality of what it means to be or become a teacher. Teaching outside of the four walls of the classroom in a garden may seem like the perfect example of resisting both anthropocentrism and individualism, since it involves teaching together with the land, where the garden and all its earthly multitude are present as co-teachers (Blenkinsop & Beeman, 2010; Sitka-Sage, Kopnina, Blenkinsop, Piersol, 2017). Indeed, engaging with the land as a teacher is pervasive throughout many Indigenous teachings (Chambers, 2006; Nxumalo & Cedillo, 2017; Simpson, 2014) and offers possibilities for decentring anthropocentrism in educational practices. However, from within the mindset Eurocentric rationality and instrumentalism, notions of the land-as-teacher (or garden-as-teacher) easily become reduced to quaint, romantic metaphors (Blenkinsop & Piersol, 2013) or worse, as justifications of ongoing colonialism through conservationist wilderness fortresses or other exclusionary appropriations of land and cultures (Fletcher, 2016; Donald, 2009). For instance, this idyllic scene of teaching with gardens and connecting with nature through gardening is troubled by the difficult history of school gardens, since gardens figured prominently in Nazi educational policies, the patriotic and militaristic aims of the United States School Garden Army, and the cultural genocide of residential schooling, to name but a few examples.

Unsettling Histories of School Gardens

Without covering the extensive history of school gardens around the world, I turn to my positionality as a German-Canadian settler to illustrate the pervasiveness of anthropocentrism and oppression within certain iterations of school gardening movements in Germany and North America. From the very first conceptualizations of children's gardens in Germany, Eurocentric and anthropocentric notions of human mastery over the natural world are clearly evident. For instance, inasmuch as Friedrich Fröbel's *Kindergarten* (literally, a children's garden) was rooted in romantic longings to connect children with nature (Herrington, 2001), its 1850 design echoes the logics of individualism and anthropocentrism

that structure indoor classroom spaces (Figure 3) and have been transferred to an outdoor setting.

The role of school gardens during wartime, in both Europe and North America, only further illustrates the ways gardens are constructed as

Figure 3
Friedrich Fröbel's (as cited in Herrington, 2001) children's garden, 1850. Each gridded, desk-like plot is labelled with a child's name. © 2001 by the Board of Regents of the University of Wisconsin System. Reprinted courtesy of the University of Wisconsin Press.

bounded territories in order to connect (particular) children to 'their' homelands. Leading up to World War II, the *Blut und Boden* (blood and soil) ideology that contributed to school gardening being mandated for all schools during Nazi Germany is a particularly horrific example of school gardening linked to race, patriarchy, eugenics, and territorial expansion, and the United States School Garden Army had similarly patriotic underpinnings. Furthermore, in North America, school gardens and farms were integral to the assimilationist tactics of colonialism through the Indian Residential School system, which coupled European, sedentary agricultural practices with moral and religious teachings (see Ostertag, 2015, for a full discussion of the history of school gardens). While these historic examples may be unsettling, they are not unusual; the very etymology of the word *garden* refers to *enclosure*, and, as this difficult history suggests, gardens are more than materially-bounded spaces but also discursive enclosures that can be entangled in oppressive anthropocentric narratives to perpetuate violent, supremacist agendas and ideologies.

To counter this difficult history, it is important to note that what a garden encloses is not pre-determined but is socially and materially situated within particular times and places. For instance, Indigenous gardening practices throughout the Americas resulted in cultural landscapes that were unfamiliar, and thus invisible, undervalued or even threatening, to European colonizers. Cultural landscapes created through fire, for instance, transformed landscapes and increased ecosystem health (Turner, 2005). However, European settlers perceived these landscapes as pristine wildernesses and sources of economic revenue through large-scale deforestation, and, thus, they banned Indigenous firekeeping practices. Gardens shaped by permaculture, polyculture, shifting cultivation, Indigenous agriculture, spirituality, and arts-based practices and provocations can also challenge essentialized conceptualizations of gardens, gardening practices, and even our gardening metaphors in educational discourses.

Arts-Based Research with a Garden

This research draws on arts-based research methodologies (Barone & Eisner, 2012; Irwin & Springgay, 2008; O'Donoghue, 2008, 2009) and site-specific installation art practices and theory (Bishop, 2005; Bourriaud, 2002; Kester, 2011; Kwon, 1997; O'Donoghue, 2010) to engage in nonhuman or more-than-human research methods (Oakley et al., 2010; Russell, 2005; Whatmore, 2006) that challenge the centrality of the human in research and teaching. Central to site-specific installation art

is an alternative understanding of art that moves away from passively viewed objects to notions that art emerges through the interactions between actively engaged viewers, the site, and the artist's or artists' installation (O'Donoghue, 2010). For instance, O'Donoghue (2010) describes installation art as "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). As a result, these artworks cannot be replicated nor commodified, since the artwork emerges through participants' personal, collective, and situated knowledge and experiences of the installation. I consider the theoretical underpinnings of site-specific installation art consistent with efforts in environmental education to dismantle the Eurocentric nature/culture binary that views Nature as a sublime object (frequently conflated with romantic allusions to pristine wilderness) and separate from human culture. These contemporary art practices also offer provocations for ethical, experiential, embodied, feral, situated, and place-based relations that both unsettle the familiar nature-culture boundaries and reconfigure our understandings of and relationships with nonhuman worlds (e.g., Fawcett, 2009; Gruenewald, 2003; Simpson, 2014; Tuck, McKenzie & McCoy, 2014).

One of the generative challenges of site-specific installation art is that meaning-making occurs in particular times, places, and bodies, which makes documenting the research a "second-order performance" (Pearson & Shanks, 2001, p. 59) rather than a representation of the artwork and any emergent interpretations. My thinking alongside the installation project was deepened by an extensive research journal, photography, online blogging, interviews with key participants and Canadian artists, as well as student teachers' written field notes and video recordings of research events at the installations with three participating classes from the UBC teacher education program. The narratives that emerged alongside the arts-based research are written in the form of life writing (Hasebe-Ludt et al., 2009), a *métissage* that brings into relation disparate elements of self and (human and nonhuman) other, as well as different times and places. Through these practices of writing alongside the installation art process, I have continuously tripped (Haraway, 2004) over the familiar tropes and metaphors that emerged as central to the research project (garden-as-teacher, teacher-as-gardener, threads, spiders, webs, etc.). Rather than remain as worn-out clichés, these have become lively, confusing, and unruly figures, tools of "rigorous confusion that jettison clarity in favour of the unintelligible" (St. Pierre, 1997, p. 281).

While other nonhuman participants in the site-specific installations, particularly flax and fireweed, played significant roles in shaping the

project, in this article I focus on the figure of the spider that I encountered in the basement of the teacher education building, lingering "like a fugitive" (St. Pierre, 1997, p. 281) in the language and practices of spinning. The figure of the spider unsettled both my sense of coherent human subjectivity and any conventional environmental education discourses that long to connect with a nature "out there." For down in that windowless basement I was uncannily becoming like a spider myself. What hope does this posthumanist reconceptualization of subjectivity offer? For one, it offers a thrilling alternative to the "everlasting, insidious grids constructed by prevailing privilege and power" (St. Pierre, 1997, p. 282), even while sitting and spinning alone in the basement of precisely such an institution.

Solitary Spider Stories

10:20 am: 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)

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)

Although I had purposefully designed the indoor installation to echo the framed walls of *Threads Sown* and *Threads 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 had intended for the invisible walls (Figure 2), round table, and four chairs to be perceived as invitations for student teachers in the lounge to participate in the project. The challenge for me was to approach the feelings of solitude, aloneness, and isolation that I noted in my research journal as aspects of the knots of coming together, sensations of failures not to be ashamed of but rather to think alongside.

Conducting such a highly visible research project, albeit one 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). This relationship with failure makes arts-based research such a powerful, though risky, methodology, particularly in education where failure is so deeply tied with memories and emotions of schooling that continuously shapes 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 individualistic and competitive nature of schooling. While educational theorists (e.g., see MacDonald (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, since "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). If attending to failure can generate ways of being *together* in the world, then cultivating and sustaining creative approaches toward failure becomes an unexpected lesson from the difficult moments of being alone during this arts-based research project.

Let me return to the student teachers that seemed to studiously resist acknowledging my presence in the basement lounge. Among other possible questions, I wondered: How comfortable are these future teachers in inquiring beyond what they already know? Had I claimed a space that did not belong to me? Was my installation simply too strange, too inaccessible, too weird to even really 'see'? Rebecca Belmore, an Anishinaabe artist living in Vancouver, suggests that resistance can be understood as a significant way to engage with a piece of art that chal-

lenges conventional understandings of who/what belongs in particular spaces. Relatedly, 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 here 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 or performances. Confronted with the unfamiliar (Why is a naked Anishinaabe woman sleeping in this bed? Why is a woman spinning in the basement of the teacher education building?), it is easier to protect our coherent, knowing self from embarrassing admissions of not-knowing and deny what is there, than to engage with an unexpected presence.

The setting of this research on a university campus and specifically in the basement lounge of the teacher education building for the '&' installation may also have played a role in limiting opportunities for the human teacher education community (instructors, student teachers, faculty members, etc.) to participate in the installation outside of the structured workshop session I held with one class of teacher education students. Due to the challenging scheduling conditions of a one-year teacher education program, a significant limitation of this research was the transient and brief nature of my interactions with student teachers themselves throughout the project.[3] Without in-depth, repeated student participation in the research process, I was unable to fully engage students in directing the course of the arts-based research project itself and exploring our collaborative experiences of becoming teachers together. Perhaps the shift to a one-year teacher education program also contributes to the hectic pace in teacher education, reducing the possibility for long-term experimentation (in teaching and research) and increasing students' resistance to incursions into their brief moments of unstructured time and space.

Furthermore, the setting for this arts-based research is at a univer-

sity rapidly shifting toward a neoliberal model of education. As a result of this rise in academic capitalism, Bishop (2012) suggests, "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. 268-269). From my position as an inhabitant of the university (the campus was my home, my school, and my research site during the course of my graduate studies), the links between neoliberalism, colonialism, and patriarchy were ever apparent within the university's discourses and its built environment. As Berg, Guhman, and Nunn (2014) write, efforts to contest and challenge the colonialism, racism, ableism, and neoliberal capitalism (and, speciesism, I would add) of universities situated on stolen Indigenous land reinforces the very individualism that is at the heart of neoliberalism:

> 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. (pp. 66–67)

Berg et al.'s (2014) analyses point to my failures to engage participants and to cultivate the radical collectivities and togetherness that I longed for in becoming teachers together as symptomatic of larger relations, structures, materials, and practices that actively resist (even discipline) efforts to collectively transform the oppressive hierarchies and individualism of the academy. My largely unfulfilled efforts to create cross-species, intergenerational relations (for instance, between the garden, student teachers, graduate students, and teacher educators) 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. Why might the academy tolerate such alternative research? Well, perhaps because at the end of the day, I was alone for much of this work and the threats I pose to the university are minimal, simply those of a marginal, flaky, and at times passionately bitchy (Moss & McMahon, 2000, as cited in Berg et al., 2014, p. 65) arts- and garden-based graduate student researcher.

Threads of Spider Becomings

> 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)
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> 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. 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)

Following the initial uncertainty and solitude that characterized the indoor '&' installation while I spun flax to linen thread in the basement student lounge, by the end of the third week I began to sense a strange, magical shift: I sensed myself becoming like a spider, spinning webs of well-being that connected to every being in the teacher education building. The etymological relationship between spinning and spiders ought to have been apparent for a German-speaker like myself; however, I had certainly not started this project with any inkling that spiders or spider webs would figure prominently. 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., the *Spinnen*) that still inhabit the word and material practices of spinning. The figure of the spider also inhabits that increasingly obsolete and derogatory English word, spinster,[4] which initially described a woman who spins but shifted to refer to unmarried women, and, eventually, also became strongly associated with the stereotype of the spinster teacher that still persists in popular culture today (Weber & Mitchell, 1995).

As my research journal entries indicate, the figure of the spider only entered the research as my spinning practice improved significantly. Through this trajectory, I increasingly sensed an embodied awareness of how human textile practices are deeply entangled with the animal world, in language and in making (Ingold, 2013). Too often, environmental educators perpetuate a human/nature binary through, for instance, fear-based appeals aimed at parents and teachers to get outside and connect children with nature (Fletcher, 2016). And yet, through spinning, I had practiced my way into an utterly revitalized understanding of the material-discursive relationships already present within familiar words, bodies, and practices: spinning, spider, *Spinne*, spinster. Imbued with new figurative meaning, metaphors like threads and webs used to describe narrative story-lines, interconnections, relationships, and many of the

core ideas in environmental thought felt lively, unruly, and as though I was encountering them suddenly for the first time. While the 'web of life' may be one of the most worn out clichés of environmentalism, the oddly peaceful and magical experience of spinning and feeling that I was becoming like a spider provided me with the insights for creating *Threads Given*, the final gift-giving installation at The UBC Orchard Garden (Figure 4). In the place where the grid of flax plants had grown the previous year, I planted a circle of weeds: the wildly beautiful, prolific, edible, spin-able, and unsettling fireweed to offer hope for regenerative human/plant/land relations in damaged educational soils. However, this linear narrative of hope was once again undone by failure: In 2014, The UBC Orchard Garden—including the installation site, remaining spider webs, memory bundles lost in the overgrown grasses, and blossoming fireweed plants—were all bulldozed to build Vantage College at the newly branded Orchard Commons precinct. Although this particular knot of failures is too complex to unravel in the space of this paper, it painfully illustrates the vulnerability of land-based projects to the dictates of neoliberalism that increasingly shapes academic cultures

Figure 4
Memory bundle knotted in a linen spider web, *Threads Given*, 2013.

and landscapes. Fortunately, The UBC Orchard Garden was relocated; however, the destruction of the initial garden and site for this *site-specific* arts-based research underscores the compelling urgency of mourning losses, of practices of remembrance, and of telling these spider stories of becoming teachers together.

Through arts-based research with a garden, student teachers, teacher educators, and plant and animal nonhuman others, I encountered instances of solitude and magic in becoming teachers together that offers a reconfiguration of togetherness, that state of interconnectedness that is so often longed for in environmental education discourses and pedagogical practices. In longing for togetherness, entanglements, and interconnections (whether in teacher education or with the nonhuman world), however, are we rejecting individualism for an equally unattainable ideology of holism that levels differences and erases distances? As Pinar (2009) writes so astutely, life is a "solitary journey in the company of others" (p. 43). Togetherness cannot be socially engineered into clichéd images of hands (paws, claws, tentacles, roots, etc.) held in an all-encompassing circle but, rather, it must also have spaces for solitude, differences, detachment (Candea, 2010), and failures.

Sitting alone in the basement and spinning flax to linen thread *did* feel awkward and isolating at times; and yet, the ritual performance of spinning opened up another register of being present that was both fully solitary and profoundly entangled with the life of the building. Rather than togetherness that is conflated with the symbol of the circle, with sameness, and with familiar interactional performances, this research has emphasized *becoming* as knots and entanglements where there are always unexpected loose ends, openings, and movement. Becoming, rather than Being, is a poststructuralist, feminist, and posthumanist reorientation that challenges the Enlightenment's emphasis on a universal human subject governed by universal reason. By questioning the self as stable, rational, autonomous, and coherent (St. Pierre, 1997), becoming resists essentializing human identities through a re-orientation toward relationships within and between selves and others. Within these "relations of obligation" (Barad, 2011, p. 150), intra-actions are open-ended, "constraining but not determining...The future is radically open at every turn" (Barad, 2003, p. 826). As such, when I claim that, through spinning, I am becoming like a spider, this figure of the spider is not an anthropomorphism, a human abstraction onto and appropriation of nonhumans (Fawcett, 2002; Timmerman & Ostertag, 2011). Rather, it is a recognition of an open-ended relationship and responsibility toward the nonhuman that fundamentally challenges and contaminates any pure divisions of self and other that inherently persist within Eurocentric

anthropocentrism, whether in environmental education or in teacher education.

The implication for ecojustice educators and teacher educators is that in those difficult moments when we feel stuck inside and isolated, we can still engage in relations of togetherness, since becoming teachers together is not solely dependent on getting hands dirty in the soil of the garden, hugging a tree, or even engaging in collective action (as important as these activities may be!). Creative practices, perhaps through arts-based research methods, can also create conditions for ethical, nonanthropocentric engagements with human and nonhuman others to resist domination, oppression, and destruction. As Arendt (1966) maintains,

> 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…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)

Becoming teachers together is about contributing to the common world, though without prescribing the nature of the relationships and practices that constitute this togetherness. Through her analysis of participatory art practices, Bishop (2012) reminds us that 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 difficult, unpredictable, and ultimately magical experience of becoming like a spider in the basement of the teacher education building is just one thread in the questions we need to ask and the stories we need to tell and listen *for* (Cruikshank, 2005) as we urgently and creatively experiment with solitary and collective practices of becoming teachers together.

Photo Credits

All photographs from the installation series, *Threads Sown, Grown & Given*, are by the author.

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Notes

[1] The UBC Orchard Garden is a teaching and learning garden at the University of British Columbia that I co-founded and where I coordinated educational programming in collaboration with the Faculty of Education, Faculty of Land & Food Systems, and the School of Architecture and Landscape Architecture. In 2014, the garden was relocated to a new site due to the construction of a new international students college on campus.

[2] The outcome of the workshop is not the focus of this aticle.

[3] I hosted three workshops during *Threads Sown, Grown & Given* with three different groups of student teachers, though fortunately always with the same instructor, Jeannie Kerr, who became a significant collaborator in the research process.

[4] I would like to thank Diane Nelson for noting the connection between spider and spinster (pers. comm. March 12, 2014).

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