Decolonizing Framework for Land-based Pedagogies

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This article examines a practice of decolonizing pedagogy used by a group of Indigenous Elders and community Knowledge Holders in the unceded x*ma0k*ayam (Musqueam) Coast Salish territories of British Columbia. Known as the Medicine Collective, this group uses an Indigenous, land-based set of pedagogical principles to guide educational programs at an urban Vancouver farm. This article argues that these pedagogical principles provide a decolonizing framework and pedagogical practices or pathways. We describe how these pathways can be used across disciplines and community settings. This framework includes five elements that are not necessarily sequential but reflect a cyclical process: (1) research into local culture; (2) preparation for land-based understanding; (3) adoption of protocol principles that emphasize orality; (4) application to community well-being; and (5) negotiation of relational ethics. Using this as a framework informed by Indigenous knowledge and pedagogy, the Medicine Collective demonstrates how these everyday acts of resurgence inform our relational responsibilities as Indigenous peoples living in other Nations' territories.

Introduction and Background

In 2009, Indigenous activists, scholars, and local Knowledge Holders formed the Medicine Collective at the University of British Columbia (UBC). This initiative intended to cultivate traditional Indigenous plants of medicinal value in the Indigenous Health Research and Education Garden (IHREG), and also employ a decolonizing educational practice to reinvigorate Indigenous Knowledge and maintain nation-to-nation relational responsibilities of Indigenous people living in others' territories. Our practice followed a land-based and decolonizing pedagogy informed by Indigenous Knowledge and critical Western scholarly discourse. Members of the Medicine Collective, including the authors of this paper, developed protocols and ethics with local Indigenous Knowledge Holders to understand and teach about local land relationships. By using this pedagogy, we answer the call for practical, non-Eurocentric forms of Indigenous land-

based education (Styres, Haig-Brown, & Blimkie, 2013). We work to decolonize diets in a particular geographical and institutional setting, but we do so as visitors to the lands of the local nation.

Decolonizing Diets

The Medicine Collective and the Indigenous Health Research Education Garden seek to decolonize land relationships in the context of food sovereignty, and promote healthy and decolonized Indigenous diets. Across Turtle Island (North America) and elsewhere, diets have been colonized over hundreds of years through loss of traditional agriculture practices, confinement on Indigenous reserves with inadequate local food and food insecurity, provision of unfamiliar foods and diets during famines and in residential and day schools, and laws prohibiting traditional hunting, fishing, and collecting practices (Hoover, 2017).

Stewards of the Gardens educate people about this history and the impact of colonization reflected in the current dietary and health practices imposed on Indigenous people. We have adopted the principle "food is medicine" (Adamson, 2011) to decolonize these practices and support Indigenous people regaining self-sufficiency to provide healthy food, healthy medicine, and more sustainable methods of food production and building community. Alfred and Corntassel (2005) clearly illustrate the relationship between food, health, and freedom when they state:

Ultimately crucial to the struggle for freedom is the reconstitution of our own sick and weakened physical bodies and community relationships accomplished through a return to the natural sources of food and the active, hard-working, physical lives lived by our ancestors. (p. 613)

Reclaiming a healthy diet requires an examination of our relationships with the land and efforts to reconcile the differences. As Tuck and Yang (2012) have suggested, "Decolonization brings about the repatriation of Indigenous land and life; it is not a metaphor for other things" (p. 1).

By networking and sharing foods and knowledge that help us to decolonize our diets, we learn to advocate for inter-tribal protocols and processes, and to support the resurgence initiatives of Indigenous peoples wherever they may be. At the UBC Farm, members of the Medicine Collective have established an ally relationship with the stewards of the Tal A'xin (Mayan in Exile Garden), Tu'wusht Garden Project, Vancouver Native Health Society, and x*məθk*əýəm Indigenous Gardens to maintain traditional ceremonies, share culture, regenerate knowledge, and decolonize educational practices to support our goal of sustainable agriculture and decolonized diets (Alfred & Corntassel, 2005). Thus, solidarity and relationship building can be enhanced and achieved by supporting shared initiatives with other Indigenous communities.

Setting and Context

The Medicine Collective operates on UBC's Point Grey Campus, unceded traditional and Ancestral territory of the x^wməθk^wəýəm (Musqueam) people. These lands have always been a place of learning for x^wməθk^wəýəm youth who were instructed in their culture, history, tradition, and practical skills, and who then shared their knowledge with the subsequent generation. Point Grey is bounded on the south by the Fraser River, which meets the Pacific Ocean near the various straits, sounds, inlets, and other coastal waterways of south-western British Columbia that comprise the Salish Sea (known to Westerners as the Georgia Strait). The delta where the salt and fresh waters meet supports a rich estuary characterized by marsh grass and muskeg peat bog in an oceanic climate. The name of the x^wməθk^wəýəm peoples refers to the type of grass at the mouth of the Fraser River and translates as "People of the River Grass." The x^wməθk^wəýəm and the University of British Columbia have a long history of affiliation formalized in a historic Memorandum of Affiliation in 2006.

The Medicine Collective provides most of its public education at the UBC Indigenous Health Research and Education Garden (IHREG) at UBC Farm in collaboration with the Faculty of Land and Food Systems (LFS) Indigenous Research Partnerships (IRP). This IHREG was established in 2007 by Dr. Eduardo Jovel-founding director of the UBC Institute for Aboriginal Health—in partnership with the Indigenous community, academics, and community service organizations (Wahbe, Jovel, García, Llagcha, V. E. P., & Point, 2007). Initially, the garden was partially supported by the BC Aboriginal Capacity and Developmental Research Environment (ACADRE) network, one of eight Canadian Network Environments for Aboriginal Health Research funded by the Canadian Institute of Aboriginal People's Health Research (IAPH-CIHR). The partnerships provide education and research incorporating Indigenous Knowledge and other ways of knowing. Thus, the Indigenous Research Partnerships complement the Medicine Collectives' objectives and support the land-based educational approach emerging from an urban garden space. This partnership has contributed to the mobilization of traditional knowledge with the support of multiple and diverse Indigenous Knowledge Holders, and strengthened the establishment of a garden's inclusive traditional medicine content and practices.

Since 2007, UBC faculty members, staff, students, and wider community members affiliated with the LFS IRP have helped build the garden at UBC Farm, negotiate control over a plot of land, and maintain a continuous Indigenous presence in the physical space, while existing within a complex institutional bureaucracy rife with impediments. Ongoing fund-

ing has sponsored research focused on the creation of environments where we can decolonize spaces, and develop relationships and teaching methods unique to a particular place, and thus reinvigorate Indigenous land-based learning. The teaching, learning, and research partnerships created by the Indigenous Research Partnerships community are important elements of our pedagogical model, as they help educators understand the local relational, cultural, and tribal knowledge. The Medicine Collective welcomes allies and shares its programs with UBC Farm visitors from other Indigenous and non-Indigenous communities so that they can experience the IHREG differently from other urban gardens. Visitors experience Indigenous teachings, songs, ways of enhancing our relationships to lands and local peoples, and an Indigenous approach to food sovereignty. We use the language, cultural concepts, and protocols of local Indigenous xwməθkwəýəm, such as sharing feasts, to mark new projects and cyclical seasonal practice. The use of local place names and markers (see Figure 1, Stone Map) help us to decolonize our relationship to lands and helps us to restore relational responsibilities.

Authors as Visitors

The primary authors of this article are Alannah Young Leon, Eduardo Jovel, and Wilson Mendes, with selected sections co-authored by other members of the Indigenous Medicine Collective. Together, they represent Indigenous heritages of x^wməθk^wəýəm, Katzie, Sts'ailes, Anishnabekway, and Nayhin/yaw; Tsl'aigi, Amerindian, and Guyana; and of Caribbean

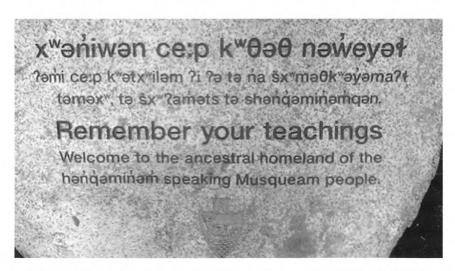


Figure 1. Stone Map naming the welcome plaza outside the University of British Columbia Museum of Anthropology. Photo credit: Eduardo Jovel, 2015.

Black, Guarani-Kaiowá, Mayan, and Mayan Pipil territories, including some mixed European genealogies. Collectively, we position ourselves as visitors to $x^wm \theta k^w \theta \phi m$ territories and demonstrate that Indigenous ways of life and laws continue despite the colonial narratives that had a profound effect on Indigenous diets.

Since the UBC Farm is located on x*məθk*əýəm Ancestral territory, the Medicine Collective members have developed decolonizing practices that make spaces for x*məθk*əýəm community members, and that include their initiatives and community agendas for wholistic, long-term, and sustainable ecological wellness. The principles used by the Medicine Collective are based on traditional protocols. For example, we introduce ourselves in our own Indigenous languages as uninvited visitors, and reference and recite our genealogies. We each locate our origins, describe our geographic homelands, and identify the nations from which we descend. By doing this, we inform the host nation so they know how we are related and demonstrate our relational responsibilities, and the willingness to follow Indigenous protocols and principles of practices of the host nation.

The x^wməθk^wəýəm community members steward their garden at the UBC Farm to grow food and medicines. We recognize that, as guests on their lands, we must support their local land and water systems, and their efforts toward food security and sovereignty. Members of the x^wməθk^wəýəm community support other Indigenous initiatives at the UBC Farm on many levels. For instance, they share their knowledge by providing guidance in the inter-nation protocols, they provide fish for community meals, they build and operate the cedar smokehouse, and they share medicine-making knowledge. Involving the x^wməθk^wəýəm community is crucial to the decolonizing education objective of the Medicine Collective; therefore, by acknowledging and making space for the nation that hosts us, the Indigenous Gardens become central to our decolonizing practice.

To begin healthy food practices, the Medicine Collective encourages learners to examine relationships to the land environments, learn the local ecologies, and incorporate this detailed knowledge into a decolonizing, land-based form of education. The Medicine Collective's teaching approach supports diverse Indigenous Knowledge systems while addressing all visitors as responsible, nation-to-nation citizens. Because we operate in the homeland of a particular people who hold detailed ecological knowledge about this location, the Medicine Collective members take special care to follow respectful protocols of land engagement with local Indigenous people, discussing and expanding pre-research engagements as developed by Gomes, Young Leon, and Brown (2013).

Indigenous Education: Knowledge and Pedagogy

At the heart of the Medicine Collective's educational and decolonizing activities are Indigenous Knowledge (IK) systems and place-based outdoor pedagogy.

Indigenous Knowledge (IK)

The theoretical framework of our decolonization initiatives puts forward Indigenous theories and methodologies (Wilson, 2001; Kovach, 2010) that examine the wholistic (interrelated) nature of knowledge, which provides an understanding from the Indigenous perspective (Castellano, 2000). IK systems arise from peoples' intimate, experiential knowledge of the ecology of their natural and human environment, including the knowledge of plants and their complex patterns within that space. Indigenous Knowledge systems include the skills people develop that are particular to that place (Battiste, 2008). Indigenous ways of knowing and acting on the land are vital to the survival and sustainability of all within that environment and include specific ceremonial and stewardship responsibilities. Smith (1999) describes the cultural and research practices that must surround Indigenous Knowledge(s) to ensure representation of Indigenous voice and to respect Indigenous ways of educating, and to promote local self-determination and the community's vision for educational transformation. Indigenous Knowledge expressed through land-based education is transformational when it identifies and deconstructs colonial structures, and supports the self-determined leadership goals of local communities (Marker, 2006; Pihama, 2005). Indigenous concepts that are derived from specific land-based (or earthbased) knowledge systems support land-based education as a method to engage in a decolonization process and re-Indigenizes lands and green spaces.

The application of Indigenous Knowledge means nurturing the relationships that promote resiliency, and enhancing the well-being of communities and individuals. At the same time, it presents a challenging, transformative learning process that connects individuals more fully to the multiplicities of the places they inhabit (Andreotti & Ahenakew, 2015; Battiste, 2013; Corntassel, 2014). Additionally, Indigenous Knowledge requires leadership from Indigenous Elders and Knowledge Holders who provide and encourage multiple expressions of Indigenous Knowledge built on the love and heritage of Ancestral knowledge. Guided by Indigenous Knowledge, the teaching methods we adopt are thus Indigenous land-based pedagogies.

Indigenous Pedagogy

By considering tribal similarities and differences, educators working at the Garden began to examine and explore a decolonizing and wholistic local land-based pedagogy. This pedagogy supports Indigenous approaches to team teaching, protects Indigenous Knowledge from exploitative practices, and demonstrates non-Eurocentric education that emphasizes Indigenous resilience, justice, and community well-being (Hansen & Antsanen, 2016). With Indigenous Elders and Knowledge Holders from diverse nations, we share appropriate Indigenous Knowledge from our respective traditions by leading medicine-making workshops, and walks in the garden and forest. Collectively, we have created a space for resurgence, an urban Indigenous green space to facilitate interdisciplinary approaches to knowing in the context of food as medicine.

Although scholars in the Western, European tradition have developed notions of place-based learning, they do not address Indigenous ways of engaging wholistic, land-based ecologies. Until relatively recently, Western science has favoured compartmentalized, disciplinary knowledge over dynamic, interdisciplinary ecological knowledge. Indigenous scholars call for critical theories and applied research that re-imagine the interconnectedness of "all my relations" (Haig-Brown, 2009). Medicine Collective members express Indigenous Knowledge systems from their respective cultural understandings, demonstrating diverse ways of interrelatedness and application of Indigenous Knowledge when working in other peoples' Indigenous territories.

Our work at the Medicine Collective applies Indigenous land-based pedagogies to teach about dispossession from the land in both urban and rural settings, while suggesting alternatives to state dependence and Western socio-economic systems (Barker, 2015; Alfred, 2007). This way of teaching and learning points to the relational qualities of place, and presents ways of thinking and educating that encourages a different way of acting. For example, the Cedar Pedagogy model (Young Leon, 2015a), which was derived from work at a rural, land-based health education camp in northern Manitoba, considers social, economic, political, spiritual, and cultural influences on education, and promotes the goals of decolonization and resurgence. Cedar Pedagogy embraces the values of relationship, responsibility, reciprocity, relevance, and respect, particularly for Indigenous oral and intellectual traditions and inter-relationships of all the beings in Creation. More generally, Indigenous land-based pedagogies appear to share five principles or components. They guide educators to research and support Indigenous culture; prepare for land-based understanding; apply the pedagogy in a way that supports local Indigenous

communities; follow protocols and principles that emphasize orality; and reflect on relational ethics (Young Leon, 2015a).

Five Components of our Land-based Decolonizing Pedagogy

The following sections describe the five components of our land-based decolonizing model that illustrate how Indigenous pedagogical practices can be mobilized in an urban setting, and across disciplines and communities. We thus answer the scholarly critique which calls for more concrete, non-Eurocentric applications for Indigenous land-based education (Christian, 2011; Corntassel & Bryce, 2011; Coulthard & Simpson, 2014). We highlight x*mə θ k*əýəm community members and the various university bodies participating at the UBC Farm.

Research and support of Indigenous culture.

Indigenous Knowledge cannot be revitalized without a robust and healthy Indigenous culture, as research must be guided by local Indigenous Knowledge Holders (Wildcat, McDonald, Irlbacher-Fox, & Coulthard, 2014). Educators must understand how to provide appropriate access to local Indigenous Knowledge Holders and how to partner with appropriate local resource people for a decolonizing approach (Elliott, Jayatilaka, Brown, Varley, & Corbett, 2012; Little Bear, 2004; Vickery & Hunter, 2014). The Medicine Collective recognizes the nuanced distinctions between local cultures and acknowledges that many of us are visitors to unceded territories. Consequently, we are careful not to tell local cultural stories or songs unless we have explicit direction from recognized community Knowledge Holders who are named publicly in an oral consent format. We cannot just adopt the local traditions without an ongoing, multi-faceted relationship with the peoples of the territory.

Prepare for land-based understanding.

From an Indigenous perspective, earth, air, water, sun, and other parts of the environment are integral to a dynamic ecology. By developing local partnerships, educators learn how these elements interact with the people of a particular place and begin to understand how human genealogies are connected to territories, which supports an alternative sustainable ecology. In particular, all learners must understand appropriate ways to make space for and provide access to IK holders of the lands where the research is taking place (Cajete, 1994, 1999; Gomes, Young Leon, & Brown, 2013; Wildcat, McDonald, Irlbacher-Fox, & Coulthard, 2014). This means an in-depth engagement with the local community that respects their way of knowing on their lands.

To understand and reconcile with the land, educators/learners must recognize how the land has been degraded and how that affects all the beings on the land; industrial food production has harmed not just the environment but our bodies. For example, clear-cut logging practices have adversely affected salmon spawning areas; and mining, forest, and petroleum industries have negatively impacted traditional plant harvesting and hunting areas (Kimmerer, 2002). As traditional food species important to humans and non-humans rapidly diminishes, educators must understand and support this particular issue as vital to Indigenous food security and sovereignty initiatives. A return to salmon and traditional foods may help West Coast peoples to reverse their rapidly declining health.

Consequently, the Medicine Collective educates visitors about how the $x^wm\theta k^w\theta \phi m$ fished sustainably and protected the rivers and streams before colonization. As educators, we had to learn both about the land as it functioned historically, naturally and in balance with people, and how the land has been damaged and functions less than ideal for the health of all beings.

Apply pedagogy that supports local Indigenous communities.

For any initiative to be successful, educators must align themselves with local self-determining initiatives such as food sovereignty that includes access to healthy water and distributing foods as medicines. There must be a respectful engagement with local peoples and places, which includes attending and supporting local community events (Morrison, 2008). In the Medicine Collective's initiative, we have video-recorded local Elders and Knowledge Holders who share their connections to the Indigenous Health Research Education Garden. These recordings document their ongoing relationships as ecological and legal stewards of this land, and meet our objective of maintaining our nation-to-nation relational responsibilities while living on their lands as good relatives who support self-determined community initiatives.

We apply this decolonizing education framework by using the pedagogy to support land-based education and local community self-determined initiatives. Negotiating and reflecting on relational ethics during our outdoor sessions educates others on how they may also contribute.

Reflect on relational ethics.

Educators interweave their practices with Indigenous, ecologically sustainable, health enhancing, and decolonizing agendas that have explicit, mutually beneficial mechanisms (Castellano, 2004). The Medicine Collective members negotiate what is public knowledge (stories, songs, uses of plant knowledge) and what is private knowledge through a complex process of collective engagement that includes naming, determining orthography, and choosing forms of representation. This collective

approach often takes much longer than the timelines set in universities or by funding agencies. The principles or laws of engagement can be negotiated over time, and the Medicine Collective continues to learn and build space for local Indigenous Knowledge and peoples to develop a relational ethic (Ermine, 2007) determined by the place-based knowledge. We model the complex nature of how we engage with each other, within our nations, and with other Indigenous peoples and contexts.

Follow protocols and principles that emphasize orality.

Protocols refer to the way of doing things, according to local customs. IK is transmitted orally, providing an experiential and wholistic form of teaching that incorporates the body (senses), the mind (thoughts), the spirit (the ethereal energies that are difficult to articulate), and the environment (earth, air, water, fire, animal, and plant relationships). The story, ceremony, songs, prayers, spoken language, histories, sharing dreams, performance, and reciting genealogy become the primary modes of teaching. Orality connects our well-being to stories that impart essential teachings, and provide lessons that can help to change attitudes and promote critical thinking skills. In many traditional Indigenous cultures, people are taught that language comes from the land and you can begin to see the relationships by understanding the language structures, meanings, and sounds. The land is thus both a teacher and a pedagogical source. Ceremonies and other cultural practices provide and encourage a life-long relationship to all that exists in Creation (Apffel-Marglin, 2011). By using the languages in our introductions, in the songs, and in the prayers, we take responsibility for our own learning. Use of ceremony, song, story, performance, and Indigenous language helps us to get ready to receive the knowledge from the Ancestors and the lands. Stories often teach us about respecting animals and plants as relatives, and illustrate how humans rely on the relationships in Creation for their well-being. We deploy Indigenous Storywork methodology to make meaning from stories (Archibald, 2008).

To summarize, Indigenous Knowledge and Indigenous pedagogy depend on understanding the connection between the non-human ecology and the human spirit. Ethics and relational laws are embedded in Indigenous Knowledges, which are taught orally through stories, Indigenous languages, and cultural practices (Woodley, Crowley, Dey de Pryck, & Carmen, 2006). Indigenous Knowledge(s) and pedagogies are wholistic, lifelong, experiential, spiritual, linguistic, and communal.

As the Medicine Collective privileges the wholistic model of Indigenous Knowledge(s) (ways of knowing), we are creating a process that includes Euro-Western and Indigenous forms of knowledge working

together. The Canadian Council on Learning (2007a) endorses such a process and calls for relevant pedagogies to enable educators to work more effectively with Indigenous land-based knowledge.

How the Medicine Collective Uses the Principles

The general principles of Indigenous Knowledge(s) and Indigenous pedagogy inform the practices of the Medicine Collective at the Indigenous Health Research and Education Garden at UBC Farm. We conduct research, form partnerships, prepare for land-based understandings, adopt oral methods, work in ways that support the local community, and then take time to reflect on what has occurred in the process.

Research

Research into the local culture started for the Medicine Collective many years before the teaching and learning began at the UBC Farm. In 2009, as part of a class project in Dr. Jo-ann Archibald's doctoral seminar in Indigenous Knowledge Systems, UBC graduate students Shayna Plaut and Alannah Young worked with the Indigenous Health Research and Education Garden at UBC Farm. We also met local xwməθkwəýəm Elders Norma Rose Point, Larry Grant, and Jeri Sparrow to establish an ongoing nation-to-nation relationship. Together, we met with students, academic health education researchers, and local Indigenous community members to discuss how local Indigenous protocols could guide the development of an Indigenous land-based pedagogy. We learned the xwməθkwəýəm histories, languages, and relationships to the land while building trust and establishing reciprocal and sustainable educational relationships. We learned how to support events initiated by the x^wməθk^wəýəm community. Most importantly, we continuously discussed community access to and ownership of the knowledge (Schnarch, 2005), and developed our protocols and ethics accordingly.

In our consultation, we learned how to demonstrate colonization and how to affirm the Indigenous Health Research Education Garden as a continuous place of teaching, learning, and growth through reference to petroglyphs and local oral history. We reviewed Indigenous research protocol documents such as *Kwayask itotamowin: Indigenous Research Ethics* (Ermine, Sinclair, & Browne, 2005), and the x^wməθkwəyəm Memorandum of Affiliation agreement with UBC to facilitate sustainable relationships and ongoing dialogue between x^wməθkwəyəm and UBC communities (Ermine, 2007; Ermine & Hampton, 2007). We avoided distracting the Elders with requests irrelevant to their self-determined community agendas. For x^wməθkwəyəm community members, our collaboration marked

another effort to develop a decolonizing, place-based project at UBC to create more meaningful education relationships.¹

Preparation

We created a body of Indigenous community advisors and educators to help facilitate land-based teaching events, and to further a land-based understanding of where we were working. As one step in creating co-partnerships with local Indigenous communities, we chose local, land-based symbols to fit our particular landscape.

To reinforce a land-based understanding, we prepared educational materials and information about the land for students before and during their visit. Anyone requesting the Indigenous cultural and land-based activities was given these resources, ideally to use before experiencing the outdoor classroom. We provided printed articles (e.g., Gomes, Young Leon, & Brown, 2013), videos (Bedard & Hannah, 2013), and audio recordings (Simpson, 2011; Coulthard & Simpson, 2014). Depending on the group's interests and age level, they could also receive a visual map outlining the selection of plants at the Indigenous Health Research Education Garden according to medicinal uses and how the gardens are organized into sections that represented organs of the human body.

The Medicine Collective also distributed basic information about $x^wm \theta k^w \theta \theta m$ people and their relationship to the UBC Farm, at the farm itself and at the Indigenous Health Research Education Garden. We circulated brochures containing basic information about the Indigenous gardens, pre-contact native plant species, and histories of the area to prepare participants for more meaningful interaction on and with the land.

We asked participants to prepare for all kinds of weather and to bring garden gloves so they can give back by weeding and harvesting in the garden. During both the in-class and on-the-land activities, participants are asked to use their physical senses (taste, touch, smell, sight, and hearing) to inform and deepen their own relationship to the plants and their medicinal uses, thereby deepening their relationship to the land. During walks in the nearby forest and in the Indigenous Health Research Education Garden, the Medicine Collective references Young Leon's (2015b) Cedar Pedagogy model.

Protocols to Emphasize Orality

Consistent with our pedagogical emphasis on orality, we greet visitors using the local Indigenous language and provide a ceremonial welcome that includes singing local public Indigenous songs and giving respect to the territories where we work. Teaching from our respective cultural

Indigenous Knowledge frameworks, we employ languages, stories, songs, and genealogies to help people understand the complexities of diversity of protocols and cultural practices, and explain the ethics of IK. We then head out to the garden or woods where we introduce participants to the plants using oral descriptions, stories, ceremonies, and song. We might recount dreams, teachings given to us by our Elders, recite prayers, and use Indigenous languages whenever possible. We do this within a relational worldview, treating plants as food or medicine and as personal relatives. During the walk, we provide the garden map and encourage participants to use all their senses when interacting with the plants.

An Application that Supports Community

By including local Indigenous Knowledge Holders, the Medicine Collective respects the local oral knowledge, adapting and applying local Indigenous Knowledge through the different levels of visitor engagement. The Medicine Collective does not assume to represent x^wməθk^wəýəm practices, such as acknowledging their genealogies and the corresponding knowledge about the land. Instead, we make space for local Knowledge Holders to represent their own knowledge. Before we determine the opening format, the local Indigenous Knowledge Holder leads the welcoming of the people to the territory and designates who introduces the cedar and tobacco. In our case, x^wməθk^wəýəm Elders Jeri Sparrow, Shane Pointe, and Larry Grant share how land and plant knowledge continue to support wholistic wellness for the xwməθkwəýəm people, and then present educational issues related to the land. The Medicine Collective, including the xwməθkwəýəm members, negotiate amongst themselves the order of the speakers and singers of songs for each event. In these ways, we modify our protocols according to local custom to remain congruent with local oral knowledge processes.

We also model how we included the interests of individual $x^wm \theta k^w \theta \phi m$ community members and their cultural gifts, whether it be weaving, wildcrafting plants and medicines, carving cedar house posts, or revitalizing the language. These can all be related to land, water, and sky environments so that visitors can witness the nuances of local cultural revitalization and experience relational face-to-face opportunities. The food and medicine teas, salves, and tobacco mix that the Medicine Collective and visitors harvest from the garden become part of the local community. By giving the items we make to the $x^wm \theta k^w \theta \phi m$ Elders and donating the medicine items as gifts, we support $x^wm \theta k^w \theta \phi m$ ceremonial and community events.

We support other forms of community as well, providing workshops to schools and other organizations that request wholistic wellness work-

shops, such as making tea or salves. Other academic communities from various universities reach out to us and regularly participate in the outdoor sessions. We often host visitors from faculties of pharmacy, social work, forestry, education, medicine, and other communities. Food harvested from the Indigenous Health Research Education Garden was shared at the monthly community Feast Bowl meal at UBC, uniting Indigenous students, staff, faculty, and supporters at the university's First Nations House of Learning Longhouse to cook and eat traditional and seasonal foods, thereby decolonizing our diets.

Reflect on Relational Ethics

Oral-based learning also presented ethical challenges and considerations, mainly since we also used other forms of communication media. We had to consider how we supported local, land-based learning, how we balanced local protocols with those of the nations represented in the Medicine Collective, and how we negotiated UBC institutional requirements with our decolonizing agenda.

Ethical relational protocols and principles forbid exploitation of knowledge by creating "outsider" non-Indigenous misrepresentations of Indigenous Knowledge and instead encourage a transparent, decolonizing framework. For example, we discussed how x^wməθk^wəŷəm Elders could provide an oral tour of the Indigenous Health Research Education Garden when neither they nor we were available to present this information. UBC could provide digital audio technologies but providing a recorded tour just didn't satisfy the Indigenous relational ethic. Intern student Keisha Amanda Charnley from the Katzie First Nation explains why a pre-recorded audio tour did not adequately represent the knowledge of the Elders:

Transmitting knowledge in ethical ways that align with Indigenous protocols poses some challenges that must be continually managed. Teachings must be shared that highlight the local responsibilities that we must be accountable to within the community, recognizing that our work is carried out on unceded $x^w m \theta k^w \theta \phi m$ territory. Because this knowledge must be shared within the context of relationship-based agreements, garden tours cannot be administered through the same standardized template model that is widely used at the UBC Farm. My research highlighted the fact that developing a tour of the Indigenous Health Research Education Garden could not be carried out using a cookie-cutter approach within the constraints of a finite timeline. Instead, the ways that we share knowledge about the garden must be dynamic, flexible, and adaptive; they must be grounded in patience, taking the time that is needed to build reciprocal relationships with learners while creating space for community members to share their own knowledge through Indigenous methods. The knowledge that the leaders of the Indigenous Health Research and Education Garden hold is sacred and actively respecting those who carry this knowledge by ensuring that this work is done in a good way is an act of decolonization itself. (personal communication, 2015)

Clearly, we could not audio-record our tours for visitors to use whenever they arrived. However, we still faced ever-changing students, community, and staff learners that clashed with our need to establish active long-term engagements with local Indigenous peoples and places. In 2010, Marissa Muñoz and Alannah Young worked with Indigenous Elders and Knowledge Holders to produce a short video on place-based education used in the Indigenous Initiatives at UBC Farm. The video was made as part of a community service-learning project for Dr. Tracey Friedel's course on place-based curriculum and pedagogy. Rather than risk misrepresentation of the Elders' voices, the Elders agreed to record the discussion as a form of collective knowledge building that included our Indigenous perspectives as the videographers. Our discussion focused on an ongoing, everyday process of decolonizing our thinking and ways of being while living as guests in the homelands of other Indigenous peoples, and how we may contribute to the regeneration of our relationship to Indigenous peoples, places, and plants through pedagogy consistent with Indigenous ontologies and oral traditions. So, although we did not create a prerecorded tour, we did record Elders' voices as part of the introduction to the land.

We also had ethical challenges trying to balance our own familiar protocols and cultural values while supporting those of the local nation. For example, the cedar tree occupies a central and complex place in xwməθkwəyəm (and West Coast) culture that takes many years to appreciate fully. In contrast, other nations recognize tobacco. To acknowledge the significance of this plant, Dr. Lee Brown planned to grow non-genetically modified tobacco in the garden. To Dr. Alannah Young, this plant had even greater importance because her Nehiy/naw-Anishnabekwe homeland resurgence initiatives require her to grow tobacco to support her Midewiwin Life Way (Good Life Way) ceremonies. To balance the significance of these two plants, Young plants tobacco and disseminates the seeds while the xwmə0kwəyəm people emphasize cedar plant knowledge. We then discuss the similarities and the differences of how both plants relate to the land within our culturally specific contexts, demonstrating the relational ethics of coexistence. Tonya Gomes reflects on how the Indigenous Health Research Education Garden and Medicine Collective members respect personal and local values:

Through Alannah's respect of her traditional teachings to begin all things with her relationship with tobacco, other members of the Medicine Collective came together in support of Indigenous right to utilize land-based learning opportunities. Within the urban settings, access to land is privileged by settler institutions, and it is an act of Indigenous affirmation for Indigenous peoples to make available usable space to cultivate strong Indigenous leadership

and knowledge transmission. Alannah and the then Director of the Institute of Aboriginal Health, Dr. Lee Brown, made the stance for Indigenous right to decolonizing practices at the Farm and this enabled the Medicine Collective to come together to live their practices and share Indigenous pedagogy, thereby contributing to the resurgence and revitalization of Indigenous knowledge, a commitment they had made to their Indigenous teachers as part of the reciprocal nature of Indigenous learning. (personal communication, 2016)

Working at a university also raises ethical considerations because of their historical practice of ignoring or exploiting the wisdom and the teachings of our Ancestors. The Medicine Collective researchers deeply understand the problem of scholars parachuting into Indigenous communities, siphoning out knowledge, and leaving to advance their personal academic careers. Furthermore, as Corntassel (2012) suggests, efforts to decolonize and regenerate Indigenous Knowledge in colonial institutions have not improved the lives of most Aboriginal peoples. Consequently, Medicine Collective members committed themselves to research that supports the Indigenous community that generates the knowledge, even though our homelands are far from x^wməθk^wəýəm territory (Young Leon, 2015a). Our resistance to colonial forms of research and our commitment to resurgence, and even to help others prepare a de-colonial practice, is a small part of an ongoing challenge that requires many strategies in multiple sites within and beyond the academy to demonstrate the essence of how these relational ethics and strategies work in day-to-day situations (Donald, Glanfield, & Sterenberg, 2012).

Another ethical consideration we encountered was the design of the garden itself and how it affected our relationship to it. After several years of reflection about the gardens, our work, and our objectives, we agreed that a new design needed to be negotiated with the community. $x^wm \theta k^w \theta \theta m$ Elder Jeri Sparrow suggested a spindle whorl design, as this tool inspires and enables world-renowned $x^wm \theta k^w \theta \theta m$ weavers, carvers, and artists.

A timely request came from a graduate student of UBC's Landscape Architecture program when he approached the Indigenous Health Research Education Garden to discuss the possibility of a garden landscape project. The natural next step was to meet with Elder Jeri Sparrow, the Medicine Collective, and local x*mə θ k*əýəm Knowledge Holders to negotiate a new garden design that embodied local knowledge traditions, ecologies, and contemporary community education interests. Dr. Lee Brown recalls how the garden itself was decolonized and replaced with a spindle whorl design (see Figure 2):

When the garden design was decolonized through student suggestions from rows to a $x^w m \theta \theta k^w \theta \theta m$ weaving design with a spindle whorl at the centre, Knowledge Keeper [Holder] Shane Pointe, $x^w m \theta \theta k^w \theta \theta m$, came forth with a rock, which was placed at the centre

of the spindle whorl. It is from this rock, at the centre of the garden, that the youth teachings begin each year. It is upon this rock that tobacco is placed as an initial offering to become the yearly planting cycle. And it is to this rock that we return again and again throughout the planting and harvesting cycles to express acknowledgment and thanksgiving for our relationship with the plants, medicines, teas, and foods that the students grow with each year. [It was] at a later date when discussions were being made and a protocol was expressed between



Figure 2. The re-designed, decolonized Indigenous Health Research Education Gardens (IHREG). Photo source: Taisha Mitchell, 2013.

the Indigenous garden and $x^wm \theta k^w \theta \phi m$ First Nation to acquire a name for the garden that Knowledge Keeper Shane Pointe suggested that a larger rock be placed at the site with the $x^wm \theta k^w \theta \phi m$ name for the garden etched upon the rock. This is at once the assertion of Indigenous naming centred in Indigenous space upon an Indigenous place. The assertion of Indigenous space in non-Indigenous institutions is a primary site of struggle. To name Indigenous space from which Indigenous voices can be raised in a foundational accomplishment to the Indigenization of the institutions of North American Turtle Island and society, something that needs to happen if we are to endure as a human species on the planet. (personal communication, 2016)

Next Steps

If UBC is to honour its commitment to Indigenous relations, Indigenous food security and sovereignty, and the revitalization of Indigenous cultures, the university must continue to provide opportunities and environments for Indigenous land-based education, and to develop research that supports and recognizes the contributions of Indigenous communities and their knowledge. By doing so, the Medicine Collective, the Indigenous Research Partnership initiatives, and the Indigenous community working at the Indigenous Health Research Education Garden at UBC Farm can continue their decolonizing approach to education, and encouraging alternative relationships with plants and foods so participants might reclaim lost connections to people and places.

UBC has an opportunity to support and even expand our work. The numbers of students and community participants engaged with the Indigenous Health Research Education Garden are rising. Many visitors have not previously engaged with anti-colonial discourse analysis and are interested in how the Medicine Collective works to regenerate Indigenous Knowledge. Students and Indigenous Health Research Education interns are eager to engage with the Medicine Collective Knowledge Holders and the Indigenous communities and organizations at the garden, creating a demand for strategic mentoring, research, and educational opportunities (Howell, Auger, Gomes, Brown, & Young Leon, 2016). More dedicated environments and educators will be required to facilitate access to culturally appropriate and decolonizing education, and opportunities to interact with urban Indigenous Knowledge Holders who know how Indigenous knowledge must be preserved, protected, translated, and mobilized (Simpson, 2014). Despite this promising growth, however, universities, as noted earlier, have historically not respected Indigenous peoples, their forms of education, or their relationships to the land. If our initial successes are to continue, UBC's strategic plan must include sustainable, long-term strategies to support Indigenous spaces, land-based education and research, and food justice for all peoples.

Additional research to apply and extend the five Indigenous pedagogical learning pathways discussed in this article will improve our capacity to mobilize Indigenous land-based knowledge and, ultimately, improve Indigenous food security and food sovereignty in urban contexts. At UBC, this would mean developing Indigenous research protocols and strategies for engaging with local Indigenous communities to continue our work, support traditional knowledge keepers, and document the experiences of participants. The implementation of the proposed Indigenous pedagogy should help to extend decolonizing approaches to Indigenous land-based education, and also provide evidenced-based examples of how to co-exist in meaningful and reciprocal ways in a territory of a Nation that is not your own.

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Notes

 1 Other examples include Larry Grant's $x^wm\theta \theta k^w\theta \phi m$ welcome figure at Allard Hall, UBC School of Law, and the decolonizing project by UBC students Sarah Ling and Spencer Lindsay to present place names that evoke relationships with the Indigenous peoples whose territories UBC now occupies. For more information see:

http://fnis.arts.ubc.ca/research-resources/knowing-the-land-beneath-our-feet/ and http://ctlt.ubc.ca/2014/02/19/həmləsəm-and-qələxən-house-films-released/

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