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Guest Editorial

Activism and Environmental Education

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Environmental education has a long and complex relationship with activism. Scholars of environmental education have explored this current of our discipline both explicitly and implicitly from a variety of perspectives. While some have proposed that environmental education is, by its very nature, political and activist-oriented (Stevenson, 1987/ 2007), others have critically pondered the role of environmental educators as activists (Jickling, 1991; 2003). Others still have advocated for the explicit rooting of environmental education in critical theory and pedagogy (Kahn, 2010). Additionally, or as an alternative, they have engaged in scholarship that questions and/or resists neoliberalism (Hursh, Henderson, and Greenwood, 2015), anthropocentrism (Lloro-Bidart, 2017) and anthropomorphism (Timmerman and Ostertag, 2011), colonialism (Tuck, Mckenzie and Mc-Coy, 2014), heteropatriarchy (Martusewicz, 2013; Russell, Sarick, and Kennelly, 2002), and other manifestations of social and ecological oppression. In this scholarly context, activism remains an important, yet controversial, mainstay of environmental education theory, research, and practice. As such, we sought submissions for this special issue from diverse perspectives that specifically investigate the relationship between environmental education and activism.

In the call for papers, we asked authors to consider questions such as:

- What counts as activism, and how does it relate to environmental education?
- What is the role of the activist-educator?
- How do we navigate the tensions of integrating activist environmental education into educational milieus that are viewed as politically objective spaces?
- What are the educational implications of the intersections of environmental activism and specific social movements (e.g., queer, Indigenous, decolonizing, environmental justice, anti-racist, feminist, animal rights, anti-poverty, anti-capitalist, peace)
- What are the implications for environmental education of increasingly visible activist movements such as Occupy, Idle No More, Standing Rock, Black Lives Matter, Arab Spring, and ongoing resistance to global trade accords like the G20 and NAFTA?
- What are the pedagogical elements, possibilities, or pitfalls of environmental activism?
- How might we be simultaneously subversive, caring, and compassionate through activist environmental education?
- What are the impacts of social media platforms and corporate culture on

activism and environmental education (e.g., slacktivism, corporate greenwashing of activism)?

We received a broad range of submissions that explicitly and implicitly engage many of these and other important questions and tensions in both Canadian and international contexts. As noted in our original call for papers, we were also open to general submissions not related to the special issue theme. As such, we are pleased to present the following articles. We have divided the journal into two categories. The first category comprises five papers that were submitted specifically for the special theme issue on activism and environmental education. The final two papers constitute general submissions, but both papers in their own ways gesture to the inherently activist qualities of environmental education.

In the opening paper entitled, "Apprentissage social et mobilisation citoyenne pour une gestion démocratique, équitable et durable de l'eau au Mexique," **Gerardo Alatorre-Frenk** discusses the recent rise of advocacy related to water rights and management in Mexico. Alatorre-Frenk considers the collaboration of grassroots organizers, scientists, academics, and Indigenous peoples in their interactions with government agencies and elected officials through a lens of environmental justice. He then juxtaposes a landscape characterized by significant natural beauty with one that is scarred by socioeconomic disparity and environmental degradation. Alatorre-Frenk also discusses the learning that occurred both during and as a result of an increasingly organized grassroots movement that emerged with the goal of fostering equitable water management in a spirit of "buen vivir." This is an approach that acknowledges the importance of multiple voices in the pursuit of universal social and ecological well-being (Gudynas, 2011).

In her paper titled "Cultivating an Aesthetic Sensibility and Activism: Everyday Aesthetics and Environmental Education," **Wanda Hurren** extends the ongoing conversation about the place of activism within environmental education by introducing possibilities for activist aesthetics as environmental education. She compares and contrasts public kinds of activism (like joining political parties and signing manifestos) with more private activisms that individuals enact in everyday ways, including how we view and tell stories about the world around us. She notes that one thread that connects all forms of activism is heartfelt engagement. She maintains that heartfelt and intentional engagement with the aesthetics of the world we inhabit is not only a legitimate form of activism itself, but also stands to inform the ways that individuals and communities come together in more publicly demonstrative activist undertakings. Hurren seizes on the notion of heartfelt engagement to characterize and explore the aesthetic sensibility as a personal activist engagement, which she takes up through her own narrative process called Mapwork. Mapwork is an aesthetically intentional drawing together of words and images that are "taken up as a way to promote embodied knowing, specifically within research and pedagogy on notions of

place and identity. It is a process that acknowledges how places and selves are interconnected" (p. 28).

Employing phenomenological analysis, **Rachelle Campigotto and Sarah E. Barrett** focus on teacher induction as experienced by teacher-candidates who have "a background, passion, or interest in environmental issues" (p. 45). Titled "Creating Space for Teacher Activism in Environmental Education: Pre-service Teachers' Experiences," this study's findings show environmentally-engaged teacher candidates wrestling with what it can mean to be both a teacher and an environmental activist. The findings emphasize participants' discomfort in claiming the identity of activist-teacher (or a complete refusal to accept the identity at all). Their discomfort originates in a variety of sources, but the most notable was in an internalized spectre of radicalism, extremism, and dubious teacher professionalism related to activism within educational contexts. It is significant that these findings show alignment between pre-service teachers' experiences and existing literature on practising teachers' conception of activist-teacher identities (Marshall & Anderson, 2009; Niblett, 2014; North, 2007; Picower, 2012). To close their article, Campigotto and Barrett offer recommendations made by their participants for pre-service teacher training programs. These teacher candidates suggest that B.Ed. and equivalent programs could make their programming more conducive to the development of activist-teacher identities by: emphasizing experiential approaches to teaching and learning; foregrounding environmental education content across their curricula; and honouring teacher candidates' prior activist or environmental experiences as valuable professional knowledge.

In **Thomas Macintyre and Martha Chaves'** paper titled "Balancing the Warrior and the Empathic Activist: The Role of the Transgressive Researcher in Environmental Education," the authors explore the existential stances adopted by scholars of environmental education. In a manner similar to Alatorre-Frenk as discussed above, Macintyre and Chaves also cite "buen vivir" as a motivating concept for scholars and community visionaries throughout Latin America. However, in reflecting on their experiences with participatory research in an alternative living community in Colombia, they grapple with their own eventual disillusionment and discuss the complex relationships encountered by many "transgressive researchers."

In the final paper submitted specifically for the special issue theme of activism and environmental education, **Lewis Williams and Nick Claxton** report on a gathering that brought together Indigenous and non-Indigenous peoples from Canada and elsewhere for several days on the traditional territory of the Tsawout First Nation on southern Vancouver Island. Titled "Recultivating Intergenerational Resilience: Possibilities for 'Scaling DEEP' through Disruptive Pedagogies of Decolonization and Reconciliation," the paper discusses a "Summit" that was developed with the support of the International Resilience Network (IRN). As described in their abstract, the IRN constitutes:

a community of practice which aims to collectively impact social-ecological resilience, in part through transformative pedagogical practices which simultaneously support Indigenous resurgence and develop epistemological and relational solidarity between Indigenous and non-Indigenous Peoples. (p. 60)

Williams and Claxton raise important questions and share illuminating insights regarding the possibilities and tensions inherent in the work of the IRN and other similar initiatives.

The final two papers in this special issue are general submissions but, as noted above, allude to an inherent activism in environmental education. In their article titled "Untrodden Paths: A Critical Conversation About Wilder Places in Outdoor Education," **Jo Straker, Tom Potter, and Dave Irwin** nuance place-based education discourses in New Zealand and Canadian contexts. They challenge contemporary place-based education calls for "IMBYist" ("in my back yard," Linney, 2010) outdoor-environmental learning experiences, arguing that wilderness learning experiences are neither better nor worse than local outdoor learning, and that wilderness offers unique opportunities for learning that may not be accessed through more "front-country" programs. The authors' dialogical method unfolds through literature-informed conceptual analysis that is interweaved with their decades of combined experience as practitioner-researchers of ecologically-conscious outdoor education. For these theorists, "wild" places offer rich and powerful opportunities for learners of all ages to think relationally about the world, and yet at the same time they challenge simplistic dichotomizations of "wilderness" from more developed or densely inhabited places, noting that what many Settlers would consider wilderness may simply be thought of as home for many Indigenous peoples. As editors, we hope that outdoor educators (and the broader readership) will find Straker, Potter, and Irwin's conversation a helpful prompt for thinking about how humans can live more sustainably in both front-country and back-country contexts.

In our final paper of this volume, **Laila Mnyusiwalla and Michal Bardecki** offer a comprehensive content analysis of place-based environmental education within Ontario's secondary school curriculum. In addition to analyzing the scope and frequency of compulsory curriculum expectations across school disciplines, the authors also assess student enrollment in courses that include place-based curriculum expectations. Their findings indicate an inconsistency in both the presence and emphasis of place-based environmental education in secondary school programming. The authors reason that such unpredictable inclusion of place-based environmental education may be connected with low student enrollment in courses where place-relevant topics are most frequently addressed. As well, they posit that many curriculum expectations that could be considered either place-based or environmental—or a combination of the two—are written so broadly that a teacher could "cover" an entire course's curriculum without engaging students in place-based environmental learning at all. The study's findings provide evidence of curriculum design problems that

pedagogues and policy advocates can use to challenge gaps between educational authorities' rhetorical commitments to environmental education and its quality implementation in Ontario and elsewhere.

In summary, the contributions made by the authors whose work constitutes this volume of the *Canadian Journal of Environmental Education* are both exciting and provoking. Their actions and ideas provide evidence for our supposition that environmental education is complexly bound up in socio-ecological change for a more just planetary future. This volume serves as a much-needed documentation of activist environmental education. Importantly, though, the most significant aspects of that work lie not in the digital pages of this (or any) journal, but in the agency of learners, researchers, teachers, and theorists to effect change. We stand in hope that in documenting such agency, we spur the enterprise of activist environmental education onward.

Acknowledgements

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Apprentissage Social et Mobilisation Citoyenne pour une Gestion Démocratique, Équitable et Durable de l'Eau au Mexique

Social Learning and Citizen Mobilization Towards Democratic and Sustainable Governance of Water in Mexico

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Resumé

*En 2012, la Constitution mexicaine a reconnu le droit humain à l'eau et il a été décidé d'élaborer une loi générale des eaux (*Ley General de Aguas*, LGA) pour garantir ce droit. À ce moment-là, les partis politiques et le gouvernement fédéral se sont mis au travail, en même temps qu'on assistait à un phénomène presque inédit : un large éventail d'acteurs –des scientifiques, des professionnels du secteur associatif, des cadres d'organisations de base, et autres– se sont organisés pour entreprendre un processus d'apprentissage collectif, d'échange de savoirs et de rédaction d'une proposition citoyenne de LGA.*

Les enjeux (en termes de qualité de vie, de tissu social et d'environnement) sont importants : des visions politiques et épistémiques tout à fait différentes se font face : d'un côté, celles du gouvernement fédéral et de la plupart des législateurs; de l'autre, celles des citoyens organisés.

Cet article analyse les processus de mise en réseau et d'hybridation de savoirs et de pouvoirs dans cette mobilisation sociale, afin d'en tirer des apprentissages qui puissent contribuer à l'action et à la réflexion des acteurs investis : les communautés, les organisations et les institutions de recherche.

Mots-clés : gestion de l'eau, apprentissage social, politiques publiques, réseau citoyen, participation citoyenne, éducation à l'environnement

Abstract

In February 2012, the Mexican Constitution recognized the human right to water, and a delay was fixed for a new Ley General de Aguas *(LGA) to be presented to Congress. While political parties and the federal government got to work, other social actors did the same; scientists, professionals from NGOs, and some grassroots organizations began to meet, exchange their knowledge and coordinate efforts at a national level to draft out a citizen proposal for a LGA, an initiative almost unseen previously in Mexico.*

Many important issues are at stake, in terms of life quality, social fabric, and environment; a sharp contrast in terms of political and epistemological positions is evident between the federal government and most members of congress, and that of organized citizens.

In this article the author analyzes the processes by which networks are created, allowing knowledge to flow and giving birth to new forms of social learning and of political organization between a diversity of actors.

Le Mexique est marqué par des paradoxes et un grand nombre de contrastes très frappants. Le pays est très riche en écosystèmes mais les dégâts environnementaux sont considérables; la majorité de la population est pauvre et ce sont quelques milliardaires et leurs représentants qui ont le pouvoir politique et économique. Ce genre de paradoxes et d'injustices se voit clairement dans le domaine de la gestion de l'eau : on trouve des terrains de golf verts toute l'année dans des régions où de nombreuses familles n'ont pas d'accès à l'eau en quantité et qualité convenables. L'eau du robinet n'est pas potable. C'est d'ailleurs l'une des raisons pour lesquelles le Mexique occupe un des premiers rangs mondiaux pour la consommation de bouteilles d'eau et de boissons gazeuses. En somme, il y a des millions de familles en situation difficile et des dégradations écologiques de grande ampleur; et en même temps, des élites dont les affaires marchent très bien. Tout cela dans un contexte politique de privatisation des services publics, notamment l'énergie et l'eau.

Cet article analyse un processus d'apprentissage et de cohésion sociale, épistémique et politique déclenché en 2012 à partir de la reconnaissance constitutionnelle du droit humain à l'eau. Ce processus s'exprime à travers la *Coordinadora Nacional Agua para Todos, Agua para la Vida* (Eau pour Tous, Eau pour la Vie : www.aguaparatodos.org.mx)[i]. Il s'agit d'un mouvement coordonné à l'échelle nationale dont le but est de conjuguer les efforts et les savoirs d'un ensemble hétérogène de personnes, d'organisations et d'institutions pour promouvoir ce que nous appelons un *buen gobierno del agua* : une gestion démocratique, participative, équitable et durable de l'eau.

Je ne suis pas un observateur externe du processus. Dans l'État de Veracruz, je fais partie d'une petite équipe constituée de collègues de plusieurs universités et de professionnels du secteur associatif qui assure la liaison entre *Agua para Todos* et un ensemble d'acteurs sociaux et de mobilisations communautaires de la région du Golfe du Mexique (www.lavida.org.mx). Le malaise social vis-à-vis des modes de gestion de l'eau va au-delà : nous cherchons à provoquer des changements politiques, environnementaux, sociaux, culturels qui permettent une gestion plus efficace et démocratique de l'eau et, en général, des territoires.

Devant les problèmes socio-environnementaux de ma région et de mon pays, j'adopte une position mixte : je suis un chercheur et en même temps un citoyen actif. Je partage le point de vue de Bouwen et Thaillieu (2004, p. 151) :

« Dans le domaine de la gestion des ressources naturelles il y a encore de très importants défis pour comprendre le travail qui va au-delà des frontières entre disciplines, entre groupes sociaux et entre acteurs investis (…) Le scientifique ou le

facilitateur devrait très probablement abandonner l'illusion de pouvoir rester neutre. Il ne peut que participer en tant que partie prenante parmi d'autres, s'intégrant au jeu de l'attention et de l'implication. Il peut inviter à la réflexion, pour créer des 'moments d'apprentissage' et ouvrir des espaces de transition où les ambigüités puissent céder la place à de nouvelles significations et de nouvelles appartenances. »

Les épistémologues du Sud (Escobar, 2002; Santos, 2006) déplorent l'écart entre la théorie et la pratique sociale, nuisible pour l'une et l'autre : une théorie aveugle ne perçoit pas les pratiques sociales; une pratique aveugle ne voit pas la pertinence de la théorie sociale. Cette approche est un appel à dissoudre la frontière entre les universitaires ou intellectuels, réputés être des producteurs de connaissances, et les activistes, réputés être des usagers des connaissances.

En ce sens, Sauvé *et al*. (2008, p.11 et 14) signalent que :

« Dans une perspective de transformation sociale, les valeurs d'équité, de justice et d'écojustice ne peuvent être envisagées en dehors de la sphère politique […] les rapports de pouvoir en ce qui concerne les 'choses publiques' – dont l'éducation et l'environnement – se jouent dans un espace politique où l'adoption d'une posture critique est de nature à débusquer et prévenir l'enlisement partisan. »

Martinez Allier (2008) parle des *connaissances activistes* et invite à analyser les injustices liées aux conflits environnementaux dans la perspective de l'écologie politique. Orellana *et al.* (2008) disent que :

« La recherche en éducation relative à l'environnement est appelée à se joindre aux efforts de revitalisation sociale et de réappropriation politique de la réalité, pour contribuer à une nouvelle lecture de celle-ci et à la transformation des situations socio-environnementales qui posent problème. »

L'éducation à l'environnement –dit Sauvé (2013)– peut stimuler l'engagement et contribuer au développement de capacités pour l'action sociale-écologique, aussi bien au sein de l'éducation officielle ou non officielle que dans les contextes d'apprentissage social non officiel; c'est-à-dire, l'apprentissage non planifié qui découle de l'interaction ou de l'action collective. Glasser (2009, p. 51) parle d'un apprentissage social *actif* et d'un co-apprentissage permettant la production de nouvelles connaissances et des innovations stratégiques pour faire face à des problèmes du monde réel.

Bawden *et al*. (2009, p.140) proposent le concept d'apprentissage sociétal pour désigner le processus par lequel les communautés, les groupes concernés ou les sociétés apprennent à innover et à s'adapter aux changements sociaux et environnementaux. Le principal enjeu, selon ces auteurs, concerne les capacités d'apprentissage critique des entités multi-acteurs qui font face à des problèmes complexes d'intérêt commun.

J'essaie d'apporter ma contribution en tant que chercheur citoyen, à travers des méthodologies de *recherche action-participation* et de co-apprentissage : le suivi collectif, la réflexion en groupe, la planification participative et la révision

constante des actions entreprises. Il s'agit d'approfondir le regard critique et auto-critique, ce qui implique d'organiser des séances de réflexion qui permettent de prendre du recul.

Pour orienter ma démarche, je me pose des questions comme : Quelles pratiques d'organisation, de gestion des informations et de communication favorisent l'apprentissage social? Quels sont les savoirs mobilisés? Quel est l'impact politique de ce processus?

Après avoir présenté le contexte, je décrirai la conjoncture qui s'ouvre lors de la reconnaissance du droit à l'eau dans la Constitution mexicaine, pour ensuite analyser les incidences de la confluence d'un large éventail d'acteurs dans l'élaboration de la proposition citoyenne de loi. Je présente brièvement les éléments clés de ce projet et décris le processus de négociation avec les pouvoirs législatifs, pour terminer en parlant des défis qui demeurent et des pistes pour de futurs projets de recherche ou recherche-action.

Les Antécédents Contextuels

Le Mexique est un pays de diversités. J'ai déjà mentionné ses contrastes sociaux et économiques. Les climats et l'accès à l'eau varient aussi beaucoup; les précipitations au sud du pays peuvent être treize fois supérieures à celles du nord; dans le sud, des villages sont inondés à chaque saison des pluies tandis que dans le nord, la sécheresse et la désertification font des ravages.

Les précipitations moyennes nationales sont de 775 mm par an, ce qui équivaut à 1 513 km^3 (CONAGUA, 2008). De ce volume, 1 084 km^3 retournent dans l'atmosphère par évapotranspiration, 400 km^3 forment des ruissellements superficiels (dont 47 km^3 sont exploités), et 78 km^3 s'infiltrent et rechargent les nappes phréatiques (dont 28 km^3 sont extraits). L'irrigation agricole consomme la plus grande partie de l'eau disponible (77 %); le secteur domestique en utilise 14 %; le reste est exploité par l'industrie (4 %) et les usines thermoélectriques (5 %) (Arreguin *et al.*, 2010, p. 54).

L'accès des familles à l'eau est loin d'être une affaire réglée. Si en 1950 la disponibilité d'eau *per capita* était de 17 742 m^3/an, en 2006 elle n'était plus que de 4 689 m^3/an (CONAGUA, 2007), une diminution attribuée aux gaspillages dans l'irrigation, l'exploitation industrielle, la pollution, les barrages et l'extraction démesurée pour approvisionner les grandes villes. Quarante millions de personnes subissent les conséquences de la surexploitation des nappes phréatiques (Arreguin *et al.*, 2010). En 2005, sur une population totale de 103 millions d'habitants, 3 millions ne disposaient pas d'un service d'eau potable, et 22 millions n'avaient pas de service d'assainissement (INEGI, 2005). Deux tiers des logements de familles rurales pauvres ne sont pas branchées au réseau d'eau potable (*ibid*, p. 429), et 23 % de la population (localisée au centre et au sud du pays) est confronté à des risques pour la santé liés à l'eau appelée potable (Jiménez, 2009, p. 277).

Le Mexique présente un très large éventail de situations en ce qui concerne la gestion de l'eau. Dans les *sierras* (régions montagneuses) habitées depuis des siècles par les peuples autochtones, on trouve souvent des organismes locaux autogérés (*Comités de agua*) chargés d'assainir les sources ou les puits et d'assurer l'entretien des infrastructures de stockage et distribution. En même temps, autour des mégalopoles, de gigantesques infrastructures de transfert et d'égout sont construites pour essayer de satisfaire les besoins.

La législation de l'eau a connu des transformations importantes à partir de 2004, quand une certaine décentralisation s'est opérée dans les politiques publiques, ce qui a permis à des entreprises privées d'augmenter leur poids politique. Parallèlement, treize gigantesques « organismes de bassin » furent créés pour l'aménagement hydrique du territoire. Sous couvert d'un discours de collaboration société-gouvernement, les « conseils de bassin » –auxquels siègent des représentants des différents types d'usagers de l'eau– sont restés en marge de la prise de décisions importantes. Le gouvernement fédéral, à travers la *Comisión Nacional del Agua* (CONAGUA), retient le pouvoir de prendre les grandes décisions de politique publique, tandis qu'à l'échelle locale, les municipalités assument la responsabilité de l'approvisionnement en eau et de l'assainissement, en employant des procédés de gestion qui excluent la participation des habitants mais encouragent le clientélisme et la corruption (*Agua para Todos*, 2012). Il n'y a pas d'option de gouvernance de l'eau et des bassins, dit Dourojeanni (2004, p. 136) « si le système politique institutionnel d'un pays n'est pas suffisamment solide et ses politiques macroéconomiques ne sont pas cohérentes avec toutes les tâches qu'il doit réaliser ».

Le traitement des eaux usées est peu efficient : seulement 40,5 % des eaux usées domestiques et 15,85 % des eaux industrielles sont traitées (Arreguin *et al.*, 2010, p. 60). Aux problèmes de pollution des lacs et rivières s'ajoute le fait que dans plusieurs des états du nord du Mexique, l'eau extraite des puits est de l'eau fossile, souvent toxique.

Les approches dominantes dans la gestion gouvernementale de l'eau sont orientées vers la satisfaction de la demande et non pas vers la gestion de l'offre hydrique de chaque bassin; les autorités municipales utilisent à leur discrétion les fonds dérivés du service, et il arrive que des grands consommateurs d'eau –et des contacts dans les hautes sphères– soient « épargnés » des paiements. Le manque d'efficacité des organismes municipaux devient un prétexte utilisé par les grandes sociétés, avec le soutien des fonctionnaires, pour promouvoir la privatisation des services; et un grand nombre de compagnies voient s'ouvrir des opportunités de profit lorsque le gouvernement planifie la construction d'œuvres géantes pour stocker, distribuer ou dessaler l'eau.

Parallèlement, nous assistons au développement du contrôle privé de l'eau en tant qu'élément clé des systèmes techniques miniers et d'énergie. L'exploitation des mines à ciel ouvert, la production d'hydroélectricité et de biocarburant et l'extraction de gaz de schiste dépendent toutes du contrôle sur de grandes quantités d'eau.[ii]

Ces politiques publiques ont de lourdes conséquences sociales et environnementales, accrues par l'effet des contrastes climatiques signalés plus haut qui, en raison du changement climatique, risquent de s'accentuer encore plus.

Une Conjoncture clé : La Reconnaissance du Droit à l'Eau dans la Constitution Mexicaine

En juillet 2010, l'Assemblée générale de l'Organisation des Nations Unies (ONU) a adopté une résolution proposée par la délégation gouvernementale de la Bolivie dans laquelle le droit à une eau potable, salubre et propre est un « droit fondamental, essentiel au plein exercice du droit à la vie et de tous les droits de l'homme ». Le gouvernement mexicain a signé et ratifié cette résolution, et en février 2012, le quatrième article constitutionnel a été modifié pour inclure le droit à l'eau : « Toute personne a le droit à l'accès, la disposition et l'assainissement de l'eau pour la consommation personnelle et domestique de façon suffisante, salubre, acceptable et abordable. L'État garantira ce droit et la loi définira les bases, appuis et modalités pour l'accès équitable et durable des ressources hydriques, en établissant la participation de la fédération, des entités fédératives et des municipalités ainsi que la participation des citoyens pour la réalisation de tels objectifs... ». Le décret inclut aussi un délai de 360 jours pour émettre une nouvelle loi, la loi générale des eaux (*Ley General de Aguas*).

À ce moment-là, les partis politiques et le gouvernement fédéral ont entamé les travaux pour élaborer leurs propositions. Mais pas seulement eux; des experts du secteur associatif et des chercheurs de plusieurs universités ont vu une très bonne occasion de mieux gérer l'eau dans le pays et ont décidé d'entreprendre une aventure presque inédite : élaborer une proposition de loi issue des citoyens, sans passer par les partis politiques (dont la plupart de la population se méfie) : « une loi optimale et nécessaire, que nous pourrions lancer comme une épée vers le futur » (Burns, 2013, p. 3). Dorénavant, nous utiliserons le sigle ICLGA (*Iniciativa Ciudadana de Ley General de Aguas*) pour désigner cette loi.

Les lois mexicaines reconnaissent à partir de 2012 deux voies possibles pour les initiatives législatives en provenance des citoyens : la *Iniciativa Ciudadana* (soutenue par 0,13 % de la liste électorale, soit environ 104 000 signatures) et la *Consulta Popular*, qui prévoit l'inclusion de propositions soutenues par 2 % des électeurs dans les bulletins de vote d'une élection fédérale.

Agua para Todos, Agua para la Vida naît en 2012, et entreprend un travail intense. Des commissions thématiques sont formées, en fonction des domaines d'expérience et de connaissances des acteurs investis et, en s'appuyant sur un wiki, (http://www.agua.org.mx/wiki), ont rédigé des documents sur des thèmes clé : Gestion des bassins; Gouvernance de l'eau; Souveraineté alimentaire; Gestion des nappes phréatiques; Prévention de la pollution, traitement et réutilisation; Durabilité hydrique des villes; Économie de l'eau; Bassins transfrontières; Justice

hydrique, barrages et mines; Éducation et culture pour un nouveau paradigme. Ces commissions se sont appuyées sur des réseaux, des organisations et des scientifiques déjà mobilisés autour de problèmes ou conflits spécifiques. Il y a aussi des associations investies dans des projets d'aménagement des bassins versants (reboisement, contrôle de l'érosion, programmes de paiement pour services environnementaux, etc.)

Un premier congrès national « Citoyens et durabilité de l'eau au Mexique » a rassemblé en décembre 2012 environ 400 personnes pour présenter et débattre les textes provisoires. Elena Burns, très activement engagée dans l'organisation de ce congrès (et, en général, dans tout le processus), rappelle que l'intention était « de promouvoir un dialogue de savoirs entre des scientifiques et des praticiens d'organisations et communautés, au-delà des papiers-autopsies sur les fleuves, lacs, nappes et écosystèmes perdus ou menacés, qui occupent une place de plus en plus importante dans les forums et symposiums sur le thème de l'eau. Nous avons décidé d'organiser un congrès visant la proposition » (Burns, 2013, p. 1). Cet évènement marque le début d'un mouvement national autour du droit à l'eau, avec la participation de scientifiques, de praticiens et du secteur de base, c'est-à-dire des habitants organisés (dans les campagnes aussi bien que dans les villes) pour essayer de résoudre des problèmes liés à la gestion de l'eau.

Les résultats de ce premier congrès, ainsi que les documents produits par les équipes thématiques, ont permis de dresser le tableau de la situation puis de déterminer les principaux axes de proposition. Une équipe d'avocats s'est chargée de « traduire » et réorganiser les documents, de façon à satisfaire les exigences du langage juridique.

Le but immédiat était de rédiger l'ICLGA, étant entendu que le but ultime était de construire le *buen gobierno del agua*, la gestion équitable, démocratique et durable de l'eau. L'ICLGA a été (et demeure) un prétexte pour se réunir, échanger, et apprendre ensemble, au niveau local, régional, des bassins versants, et national. Tout le monde savait que l'ICLGA aurait du mal à se frayer un chemin dans les couloirs législatifs, et qu'une loi des eaux serait insuffisante pour assurer ce *buen gobierno*; il faudrait organiser de façon cohérente les politiques hydriques, économiques, productives, environnementales, foncières, etc.; et en même temps, assurer la transparence, les mécanismes de consultation populaire, d'audit et d'accès public aux informations nécessaires pour la prise de décisions à tout niveau.

C'est dans ce contexte que l'on peut donner un sens aux efforts pour avoir l'ICLGA : il s'agissait d'organiser un double agenda : celui des enjeux de haut niveau (les décisions qui doivent être prises par les autorités gouvernementales) et celui des responsabilités citoyennes pour entreprendre des actions dans les communautés, les organisations, les institutions, les bassins versants. « Le savoir-agir –disent Sauvé et Orellana (2008, p. 9)– ne suffit pas, il importe de développer et de s'approprier un pouvoir-agir face aux situations d'entrave et d'aliénation, en vue d'effectuer les changements qui s'imposent, vers l'émancipation ».

Une équipe interdisciplinaire d'une vingtaine de professionnels, qui souvent combinent le travail intellectuel et l'action dans le secteur associatif, assurent depuis 2014 la coordination nationale des travaux d'un ensemble hétérogène de personnes, groupes, organisations et institutions nommé *Agua para Todos, Agua para la Vida*.

La Mobilisation Sociale et Politique en tant que Processus d'Apprentissage Collectif

Comme je l'ai déjà expliqué, le but ultime du mouvement entourant l'ICLGA est d'établir ce que nous appelons le *buen gobierno* de l'eau, un concept plus adéquat que celui de *gouvernance*, utilisé dans des champs sémantiques et politiques très divers, et souvent contradictoires.

Le *buen gobierno* suit une série de principes éthiques, politiques, théoriques et juridiques : a) l'eau est conçue comme un bien commun appartenant non pas à l'État mais à la Nation, et doit être gérée durablement et sans but lucratif; b) la priorité est l'utilisation de l'eau par la nature; puis pour les besoins domestiques, et ensuite pour la souveraineté alimentaire; les autres usages ne viennent qu'après; c) un cadre institutionnel consensuel et légitimé, basé sur des entités échelonnées, assure la participation de la société organisée à côté des différents niveaux de gouvernement; d) les processus de gestion de l'eau (planification, exécution, surveillance, sanction) incluent la participation des communautés et des citoyens, en respectant les us et coutumes des populations, y compris leurs systèmes d'organisation sociale; e) la sécurité hydrique pour les populations humaines et les écosystèmes est assurée grâce à une gestion intégrale des bassins versants; et f) le principe de précaution est appliqué; toute activité ou projet qui peut présenter un risque pour les communautés, leur territoire et leurs eaux est soumise à leur consentement libre et éclairé.[iii]

Il ne s'agit donc pas seulement de l'exercice équitable du droit humain à l'eau, mais de la prise de décisions, de l'inclusion sociale, des co-responsabilités, de l'utilisation juste, de l'assainissement et des droits de la nature à l'eau (aujourd'hui reconnus dans la constitution de l'Équateur).

Les travaux des commissions thématiques, de trois congrès nationaux (celui de décembre 2012, le second en octobre 2014 à Guadalajara; et le troisième en octobre 2016 à Xalapa), de très nombreux colloques, forums et rencontres partout au Mexique et la communication électronique permanente permettent de concevoir des processus innovateurs d'éducation à l'environnement centrés sur l'apprentissage social où nous partageons une grande diversité de connaissances.

Il y a d'une part un processus interdisciplinaire : les approches sociologiques ou anthropologiques se marient à celles des biologistes, des hydrologues et autres experts des sciences naturelles, ainsi qu'avec les connaissances et les langages des juristes. Le résultat est une certaine flexibilisation épistémique

et méthodologique qui peut permettre de traiter plus profondément des phénomènes très complexes. D'autre part, des liens transdisciplinaires se renforcent entre des réseaux de chercheurs, des ONG, des groupes populaires et, dans certains cas, des fonctionnaires du gouvernement. Plusieurs échelles (Berkes, 2003) et approches de travail territorial se nourrissent ainsi les unes aux autres.

Autour d'un noyau –une vision théorique et politique de la gestion de l'eau et de l'exercice du droit à y accéder– des dialogues s'entament entre des visions différentes : l'optique macro des chercheurs qui travaillent sur les politiques hydriques au niveau national, les savoirs des communautés et des organisations de base, et les connaissances des professionnels engagés sur le terrain dans des projets liés à la gestion de l'eau. Ceci permet de tisser les savoirs et pouvoirs des différents acteurs (Long et Villareal, 1994).

L'élaboration de l'ICLGA et tout le mouvement pour un *buen gobierno del agua* sont des processus de collaboration multi-acteurs avec un caractère écopédagogique, dans le sens que lui donne M. Gadotti (2008, p.69) : « L'écopédagogie, insérée dans ce mouvement socio-historique, en formant des citoyens capables de choisir les indicateurs de qualité de leur futur, devient une pédagogie toute nouvelle et radicalement démocratique ». Ces affluences multi-acteurs ne sont pas nouvelles : la plupart des professionnels engagés dans *Agua para Todos* ont, dans ce genre de projets, une histoire qui leur a permis de tisser des relations avec des groupes mobilisés autour de besoins et espoirs précis : l'opposition à la privatisation des services municipaux d'eau et d'assainissement, aux aqueducs qui conduiraient l'eau vers les zones industrielles et urbaines, aux projets de transfert, barrages, exploitations minières et plus récemment, à l'extraction de gaz de schiste, qui s'additionnent aux problèmes de longue date : la pollution, les impacts d'infrastructures mal planifiées, etc.

Pour les organisations locales, l'ICLGA est l'occasion d'énoncer leurs savoirs et propositions dans un langage plus puissant, un discours structuré capable de communiquer leurs paris éthiques et politiques, leurs regards sur le pays, leurs projets de vie, et d'accroître ainsi leur incidence sur l'opinion publique et le changement social.

Dans les grandes villes, de nombreux groupes d'étudiants s'investissent très activement dans la collecte de signatures, une activité où ils peuvent apprendre beaucoup sur la gestion de l'eau et aussi communiquer ces apprentissages à un large public.

Les échanges multi-acteurs apportent en même temps une plus large visibilité et légitimité des savoirs cosmologiques des communautés paysannes et/ou autochtones qui incluent, entre autres, un système de significations culturelles associées à l'eau. L'approche théorique de l'ICLGA intègre une lecture aussi culturelle que politique des processus historiques de gestion de l'eau et des bassins. Le projet de loi puise dans les savoirs dits scientifiques aussi bien que dans les savoirs transmis de génération en génération, surtout dans la partie

mésoaméricaine du Mexique. Je perçois une convergence entre la sagesse des peuples autochtones et les théories de l'écologie lorsqu'elles constatent les dangers d'une relation irresponsable avec l'entité plus large dont nous faisons tous partie.

Dans nos visites dans les *sierras* de l'État de Veracruz, nous avons souvent écouté des histoires : « On dit que si quelqu'un vend l'eau, le puits va s'assécher » (Alatorre, 2015). L'eau est conçue et traitée comme un être surnaturel, qui a une volonté propre et la possibilité de sanctionner. On retrouve ici la plateforme du *Buen Vivir*, laquelle, d'après Eduardo Gudynas (2011, pp. 13-16), permet la rencontre de différentes ontologies, une plateforme qui se construit de façon interculturelle à partir des pratiques de construction d'alternatives au développement, autour de plusieurs axes : a) une éthique différente pour reconnaître des valeurs (celles de la nature par rapport à celles d'un monde matériel soumis à la logique marchande); b) la décolonisation des savoirs, qui rejette toute prétention d'un savoir privilégié à partir duquel on pourrait évaluer les autres; c) l'abandon de la rationalité de la manipulation utilitaire de ce qui nous entoure (aussi bien les personnes que la nature) comme des moyens pour arriver à nos buts; d) une vocation tournée vers la rencontre, le dialogue ou les interactions entre les différents savoirs; e) l'abandon d'une conception de la nature à titre d'entité extérieure aux êtres humains, et désarticulée en objets qui peuvent être gérés en tant que ressources; f) les communautés élargies : une place pour les êtres non humains (de l'environnement et même des esprits) parmi les acteurs ayant une expression politique; et finalement g) la reconnaissance de l'importance des émotions pour assurer que tous les mondes trouvent leur place dans ce monde.

La transition vers le *Buen Vivir* (Dávalos, 2008) est fortement enracinée là où les sources d'eau, les ruisseaux, les montagnes et la nature toute entière ont un caractère sacré, comme c'est le cas dans beaucoup de régions de notre pays et de notre continent, en particulier celles habitées par les peuples autochtones.

Les Éléments Clés de la Proposition Citoyenne de la Loi Générale des Eaux

J'ai signalé ci-dessus quels sont, dans la perspective de *Agua para Todos*, les critères théoriques et politiques du *Buen gobierno del agua,* qui sont à la base de la *Iniciativa Ciudadana de Ley General de Aguas*. La proposition de loi vise le renforcement, l'appropriation citoyenne et la démocratisation des institutions qui planifient, réglementent et surveillent l'accès à l'eau et son usage à plusieurs échelles (micro-bassins, sous-bassins et bassins versants). On associe cette approche aux apports conceptuels d'Elinor Ostrom (2011) sur la gestion des ressources communes. Il faut en même temps tenir compte du fait qu'il existe au Mexique de nombreuses racines culturelles de l'organisation communautaire liée à la gestion de l'eau. J'ai déjà mentionné les *comités de agua*. On constate dans de nombreux villages ruraux et dans les banlieues urbaines la validité des

us et coutumes en ce qui a trait à l'aménagement des puits et des sources d'eau, la construction et l'entretien des systèmes locaux de stockage et de distribution de l'eau, etc. Il s'agit de systèmes indépendants, auto-organisés et autogérés qui assurent la planification, la gestion et la surveillance.[ii]

Le programme politique de l'ICLGA pour une période de 15 ans inclut l'approvisionnement en eau pour les écosystèmes vitaux, de l'eau de qualité et l'assainissement pour tous, de l'eau pour la souveraineté alimentaire, la fin de la pollution des rivières et lacs, la fin de la surexploitation et de la destruction des nappes phréatiques, et la fin des risques et désastres provoqués par une gestion sociale-hydrique-environnementale erronée (*Agua para Todos*, 2013).

La réorganisation des bassins pour assurer le droit à l'eau passe essentiellement par la réorganisation et la redistribution du pouvoir entre les acteurs en présence. Le principal instrument pour planifier la gestion de l'eau serait le plan directeur de chaque bassin versant, élaboré par consensus en partant du niveau local (Burns et Moctezuma, 2013). Ce plan stipulerait, pour chaque bassin et à partir des usages prioritaires, la quantité d'eau à la disposition de chaque personne, et les mesures qui doivent être prises pour assurer l'exercice universel du droit à l'eau, en fonction des conditions. Toute décision concernant une infrastructure qui pourrait avoir un effet sur l'exercice de ce droit serait soumise aux conseils municipaux d'eau et d'assainissement. Et le système actuel de concessions qui donne lieu à la surexploitation des nappes phréatiques serait restructuré.

L'ICLGA prévoit en plus la création d'entités chargées de garantir le financement nécessaire pour l'exercice du droit à l'eau et à l'assainissement, à partir, prioritairement, de projets communautaires autogérés. Un organe d'inspection social formé par des citoyens veillerait à ce que la gestion publique de l'eau s'effectue de façon transparente et honnête. Cet organisme aurait un budget autonome et la possibilité de prendre des décisions contraignantes.

Les Négociations avec le Pouvoir Législatif

Le travail de *Agua para Todos* a débouché sur un projet de loi solide du point de vue technique, juridique, social, économique et politique. L'ICLGA a pu se frayer un chemin à la chambre des députés. Pendant dix-huit mois (en 2013-2014), la commission des ressources hydriques de cette chambre a repris presque intégralement l'ICLGA pour préparer sa propre proposition. En 2014, un groupe de députés de plusieurs partis politiques a approuvé un ensemble d'éléments essentiels que toute LGA devrait inclure.

En février 2015, deux projets très différents de *Ley General de Aguas* sont présentés au pouvoir législatif mexicain : celui de *Agua para Todos*, par le biais d'une quarantaine de députés solidaires et, peu de jours après, celui du gouvernement fédéral, à travers la *Comisión Nacional del Agua* (CONAGUA). Immédiatement, les partis dominants essaient en vain d'accélérer l'approbation

du projet CONAGUA. Cela est peut-être en partie le résultat du contrepouvoir que *Agua para Todos* a réussi à construire pendant trois ans.

Lors de la rédaction de cet article, les choses sont au point mort. La LGA du gouvernement fédéral n'est pas encore acceptée. Elle cherche à ouvrir la voie à la privatisation du contrôle sur l'eau et promeut les grands ouvrages d'infrastructure et l'utilisation des eaux pour l'extraction de combustibles et de minéraux, ainsi que pour l'hydro-électricité.

La pression politique pour une gouvernance démocratique et durable de l'eau adopte des formes diverses : des publications, des colloques scientifiques, du lobbying auprès de sénateurs et de députés, des forums et des manifestations. La collecte de signatures continue. En mars 2017, le bilan de la collecte est de 90 % du nombre de signatures nécessaires pour présenter la *Iniciativa Ciudadana*.

En tout cas, *Agua para Todos* n'est pas dupe : l'existence d'une loi en elle-même ne garantit rien. De nombreuses lois mexicaines, souvent bien rédigées et pertinentes pour les communautés et l'environnement, restent sur papier lorsque le rapport de forces favorise des pouvoirs factuels qui s'opposent à leur application.

Quelques Conclusions, Défis et Pistes

Le mouvement mexicain autour de la gestion de l'eau a permis aux organisations de passer de l'opposition aux propositions, ce qui a déclenché des dynamiques d'apprentissages diversifiés, un processus d'éducation à l'environnement où nous sommes tous des éducateurs et des apprentis. Nous nous instruisons sur les écosystèmes, sur la législation et les politiques publiques, et nous apprenons à collaborer avec la diversité d'acteurs qui interviennent dans les conflits socio-environnementaux : les fonctionnaires, les chercheurs, les organisations de base communautaire, les étudiants, les ONG, la presse, les religieux et autres. Devant la criminalisation des luttes citoyennes, très grave au Mexique, les organisations et les communautés mobilisées renforcent leurs mesures de sécurité. Et, en dépit de l'hégémonie de plus en plus serrée du gouvernement, allié avec les agences multilatérales et les corporations, nous nous soutenons mutuellement pour maintenir l'espoir d'un changement, possible parce qu'indispensable, dans la politique de gestion des eaux et des territoires.

L'enjeu principal est la mobilisation de savoirs (Sauvé, 2013) et la constitution de sujets politiques légitimes dans chaque région, ainsi qu'à l'échelle nationale, qui soient capables d'assurer la transition vers une gestion durable, équitable et démocratique de l'eau et des bassins. Ceci implique des modifications des rapports de forces qui penchent aujourd'hui vers les intérêts corporatifs.

Un vrai mouvement national est né autour des revendications pour le droit à l'eau. Sa vigueur politique est liée à des confluences de plusieurs sortes : une

argumentation technique et juridique soigneusement élaborée rejoint les savoirs et les efforts de nombreuses communautés locales, assurant ainsi la viabilité sociale, culturelle et économique de la *Iniciativa Ciudadana de Ley General de Aguas*. L'eau est par ailleurs un élément charnière entre différentes problématiques et luttes : les problèmes d'approvisionnement en eau des populations ont non seulement un impact direct sur l'exercice ou le manque d'exercice du droit à l'eau, mais aussi sur la santé et la sécurité alimentaire. Une mauvaise gestion de l'eau et des bassins accroît la vulnérabilité des populations et des écosystèmes face aux perturbations climatiques, de plus en plus fréquentes et violentes. Autour de l'eau se tisse un réseau de problèmes, de longue date ou plus récents : aux impacts de la pollution s'ajoutent, comme nous l'avons déjà dit, les menaces de projets miniers, hydroélectriques, d'extraction de gaz de schiste, etc.

Pour construire une gestion durable et démocratique de l'eau il faudrait des accords entre toutes les parties impliquées. Il y aura certainement des acteurs qui ne s'assoiront à la table des négociations uniquement s'ils font l'objet de pressions. L'important est d'avoir des accords sur des questions essentielles, issus de ces espaces de discussion et prise de décisions, légitimés par un certain consensus, ce qui permettra –en plus d'avancer vers des modes plus durables de gestion des bassins et de l'eau– de récupérer la cohésion du tissu social.

Mon travail peut donner des pistes aussi bien pour la recherche que pour l'action organisée des citoyens. D'abord, l'expérience de *Agua para Todos* montre les vertus et les limites d'une approche qui lie la recherche à l'action. Les défis d'une gestion durable et démocratique des bassins et de l'eau sont complexes. Il est souvent difficile d'éviter des asymétries entre les savoirs, les responsabilités et les motivations des différents acteurs sociaux et politiques; le co-apprentissage et le travail transdisciplinaire ne sont pas évidents.

Un exemple éloquent est le fait que l'ICLGA n'a pas encore été examinée dans des langues autochtones du pays. Au Mexique, 7,4 millions de personnes parlent une langue autochtone; le nahuatl est la langue maternelle de presque deux millions de personnes, et le maya de 860 000. Il existe plus de 70 langues actuellement. Une tâche à court terme devrait être la révision de la proposition de loi par ceux qui pensent à la réalité dans ces langues, pour recenser les différents systèmes de signification et les visions culturellement enracinées qui pourraient nourrir le dialogue interculturel transdisciplinaire.

Il serait important d'approfondir la compréhension sur la portée et les limitations du mouvement *Agua para Todos* et des initiatives semblables qui se développent dans d'autres pays du monde. Il faudrait connaître et analyser la résistance qui surgit au Mexique face aux tendances vers la privatisation des organismes chargés de fournir les services d'eau et d'assainissement. Une étude très motivante dans ce sens est l'ouvrage de M. Pigeon et de ses collègues sur la Remunicipalisation (2013). Il conviendrait d'effectuer des recherches centrées sur les modes d'organisation institutionnelle et administrative pour la gestion démocratique de l'eau, et de faire des études comparatives permettant de mieux

comprendre les interactions et les négociations entre les différentes forces en présence : les sociétés multinationales, les organismes et agences internationaux, les gouvernements nationaux, les universitaires, les organisations citoyennes, les gouvernements locaux, les entreprises, les organisations de base et les acteurs communautaires. Une affaire assez complexe, sans doute.

Notes

i   Une carte montrant les effets sur les ressources hydriques au Mexique se trouve en ligne, à http://cartocritica.giscloud.com/map/444276/veracruz-agua-en-peligro

ii   Définition élaborée par l'auteur à partir de plusieurs documents de *Agua para Todos*, notamment les résultats du travail de la commission thématique « Gouvernance de l'eau » (2014).

iii   Ceci n'exclut pas qu'il puisse y avoir actuellement des problèmes de corruption dans certains de ces organismes.

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Cultivating an Aesthetic Sensibility and Activism: Everyday Aesthetics and Environmental Education

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Abstract

The place of activism in environmental education is an ongoing conversation among educators. In this article I highlight an area that has received minimal attention within that conversation: aesthetics and activism. While activism can be enacted at the personal and public levels, I focus on the personal level of activism as I discuss links between everyday aesthetics and activism and the importance of cultivating an aesthetic sensibility. I then share narrative, poetic, and photographic excerpts from a mapwork project titled Bodies of Water: Partial Companion to a Prairie Atlas. *This project enacts aesthetics and activism on a local, everyday level, and has implications for the global, public level. I invite educators to consider similar approaches to activism by paying attention to local ecological components.*

Résumé

Les éducateurs débattent régulièrement de la place de l'activisme dans l'éducation à l'environnement. Ces conversations ont tendance à laisser dans l'ombre la relation entre activisme et esthétique, relation que je me propose de mettre en lumière ici. Si l'activisme peut aussi se déployer dans la sphère publique, je m'intéresse surtout à sa place dans la sphère personnelle et à ses liens avec l'esthétique du quotidien. En quoi, par exemple, l'activisme nourrit-il la sensibilité esthétique? Je présente également des *passages poétiques et narratifs, de même que des clichés photographiques tirés d'un projet cartographique intitulé* Bodies of Water : Partial Companion to a Prairie Atlas. *Ce projet met de l'avant différentes manifestations locales et quotidiennes de l'activisme et de l'esthétique, qui ont aussi une incidence dans la sphère publique, de manière plus vaste. J'invite les éducateurs à considérer ce type d'approches en portant attention aux composantes* écologiques *locales.*

Keywords: aesthetic sensibility, everyday aesthetics, activism, environmental education, mapwork, prairie

> *We are one spirit, one song, and our world will be harmonious only when we make the time to care. For ourselves. For each other. For our home. You don't need to be a Native person to understand that—just human.*   Richard Wagamese (2011, p. 37)

For the first time in my life, at the wonder-filled age of 58, I became an official member of a political party: the BC Greens. It was then I also began signing manifestos, my first being the Leap Manifesto.[1] Why did I wait so long? Overall, I was comfortable honouring and caring for the environment in my own way,

and I didn't think I needed to join a political party or sign manifestos to do that. What made me change? Two reasons are at the heart of this matter.

Firstly, as part of my work as an Associate Dean in a Faculty of Education, I organized several "educator-in-residence" programs that focused on caring for places, colonial legacies within education and within local territories, and living in the world in sustainable ways. A collective of educators-in-residence made up of poets, artists, educators, farmers, activists, innovators, and scientists shared their work, and I saw that while activism can take many forms, there is one key component that needs to be present for change to take place: heartfelt engagement. And the older I get, the more I am called to focus on what is close to my heart.

Secondly, over the last ten years, due in large part to colonization, I have been living and working on the unceded territories of the Lekwungen and SENĆOŦEN language speaking peoples. I want to respond to that colonial legacy with reciprocity, including aligning my pedagogical and personal life to address recent Truth and Reconciliation Commission (2015) recommendations on educating for reconciliation, especially regarding Recommendation 62 (ii), which calls for "post-secondary institutions to educate teachers on how to integrate Indigenous knowledge and teaching methods into classrooms" (p. 331). Honouring places and acknowledging our connections to places are strong components of Indigenous knowledges and teachings. Incorporating an ecological imperative in my curricular work in teacher education is one technique for honouring both the environment and our local places. It also serves as a helpful approach to educating for reconciliation. Taking a personal stand and joining larger collectives to support these same imperatives is another way for me both to respond to the aforementioned privilege of living and working on these territories and to answer the call for reconcilliation. I want to act in support of the things that are closest to my heart, and I know my best chances for doing that require calling on both my personal and pedagogical ways of being in the world (which are most often poetic and artistic), and joining with like-minded larger public collectives.

Regarding environmental education and activism, I am inviting readers to consider two seemingly disparate notions that, when they work together, hold possibilities for ecological care at the local and global levels and encourage heartfelt engagement. These two notions are *everyday aesthetics* and *activism*. After discussing these notions, I share narrative and poetic passages and photographs from a mapwork project (Hurren, 2008, 2009, 2014) about bodies of water on the prairies. Mapwork[2] is a process I have taken up as a way to promote embodied knowing, specifically within research and pedagogy on notions of place and identity. It is a process that acknowledges how places and selves are interconnected. The mapwork process disrupts standard/colonizing cartographic forms of maps and atlases by incorporating narrative, photographic, and poetic components. This mapwork project about bodies of water calls on a form of bioregional narrative (Cheney, 1989), one that is localized and connects people and communities. In the project, I have been compiling related facts, stories,

poems, and photographs that focus on the presence or absence of water on the prairies. The stories are not meant to be "tales of universal truth, but of local truth, bioregional truth," as Cheney has encouraged (p. 133). My reasons for taking on this project stem from an ongoing fascination with "all things prairie," and an attempt to disrupt stereotypical notions of prairie as dry and arid, instead highlighting, within my research and pedagogy, the intricate connections between people and places—especially bodies of water in those places.

The impetus for sharing my ideas in this article and including excerpts of mapwork in the form of narrative, poetry, and photographs grows out of an imperative, and more specifically out of what I believe was a call for activism issued by Rishma Dunlop in a special issue of *Canadian Journal of Environmental Education* (2008). As guest editor of that issue, Dunlop stated:

> I believe that the best new writing about the environment and ecological concerns are necessarily driven by narrative, by stories in which we as human individuals are strongly present . . . . These kinds of narratives provide the potential to connect to the environment or reconnect to the environment in ways that are vital to ecological concerns in the 21st Century. (p. 5)

Like Richard Wagamese, Rishma reminded us that caring for the earth is a human imperative, and I believe she was calling for activism of the narrative kind—a form of activism that engages individuals as storytellers. Dunlop's call for stories and narrative forms of engagement within environmental education was situated within an ongoing conversation within the field, wherein she and others have continued to champion the importance of stories.[3] Along with joining political parties, signing manifestos, and aligning my pedagogical life with what is in my heart, my choice of writing style, combined with my choice of arts-based research and pedagogy using a mapwork approach, are forms of activism that arise from the (my) personal, human level, and address a public audience.

Everyday Aesthetics and Activism

Terms such as *militant*, *take action*, *stand in opposition*, *conflict*, and *change* are often included in delineations of activism. For the most part, the word "activism" connotes aggressive, assertive behaviours often associated with protests, marches, and stand-offs. Amassing large numbers of supporters to join in the action is also associated with the term. In general, curricular and pedagogical discussions related to activism evoke the ethical issues surrounding educational decisions, and induce questions about objectivity versus responsibility. As educators, we are encouraged to be cautious about promoting our own agendas as we teach to cultivate efficacy among students. Jickling (2003) outlined the dilemmas facing educators as they negotiate a path between "leaning toward value neutrality and value-free education practice and delineating their positions, and

then acting on them" (p. 23). Where there are at least two sides to an issue, we have been cautioned about monitoring community issues and not adding fuel to the fire; examples of such controversial community issues are forestry, fishing, agriculture, mineral extraction, organic farming, and water use. We have debated the benefits of disclosing our own positions regarding controversial issues or remaining "neutral" or "objective," (Chamberlin & Glassford, 2008; Clark, 2016; Clarke, 2005; Jickling, 2003; Werner, 2016). Moreover, especially within social studies education, we have explored possible links between activism and citizenship (Cassidy & Ferguson, 2016; Clark & Case, 2016; Sears, 2004). One conversation that has not made many inroads into discussions of activism and environmental education is that of aesthetic engagement as a form of, and even requirement for, activism.

Though not always acknowledged or recognized, "the aesthetic" is often employed and activated in the cause of political, social, and commercial agendas. This has been the case throughout the ages, be it in the form of literature, music, or visual arts. Poets and writers continue to be imprisoned for their resistance writing, artists are sometimes required to evade authorities (e.g., Salman Rushdie, Ai Weiwei), and politicians shape national narratives through images, films, stories, exhibitions in national galleries, etc.

Articulating the notion of aesthetics has long been the labour of philosophers, and is not the purpose of this article. However, I do want to share some ideas about how I am taking up the notion of aesthetics. In a recent discussion of aesthetic concepts, especially in relation to the environment, Porteous (2013, p. 22) makes a useful distinction between sensory aesthetics ("sounds, colours, textures, and smells"), formal aesthetics ("appreciation of the shapes, rhythms, complexities and sequences of the visual world"), and symbolic aesthetics ("meanings of the environment that give people pleasure or otherwise"). I believe the process of cultivating an aesthetic sensibility requires acknowledging each of these three areas of aesthetic engagement—sensory, formal, and symbolic.

Dewey (1934) admits, "We have no word in the English language that unambiguously includes what is signified by the two words 'artistic' and 'esthetic'" (p. 47). According to Dewey, *aesthetic* refers to "experience as appreciative, perceiving, and enjoying" (p. 47). Rather than a focus on notions of "artistic" or art-centred objects, attention to appreciation, perception, and enjoyment frames my use of aesthetics in this article. I am using *aesthetic* to mean something that would enliven and engage our senses, and I am employing it in opposition to *anaesthetic*—something that would dull our senses and result in disengagement.

As Jacobsen (2010) reminds us, "Humans appreciate a wide range of entities aesthetically: . . . food, machinery, habitats and various objects of everyday life" (p. 184). In linking everyday aesthetics and activism, I am focusing on those entities that are not overtly created or made for aesthetic appreciation. Rather, they are the everyday components of places that already exist. An example from an environmental context is that of a wind turbine. While it was not conceptualized

or constructed as an aesthetic object, depending on the sensibility of those who encounter this technology, it could be appreciated for its aesthetic effect as well as for its environmental impact.

Cultivating an Aesthetic Sensibility

In a discussion of everyday aesthetics, Yuriko Saito (2007) distinguishes between formal art appreciation objects and aesthetic objects in everyday life. She makes the point that any object can be considered an aesthetic one, depending on the attitude and aesthetic sensibility of its viewer. She suggests that attending to everyday aesthetics is a way to cultivate an aesthetic sensibility, adding that a well-developed aesthetic sensibility is ecologically necessary for the well-being of all. This imperative is related to Yi-Fu Tuan's (1974) notion of "topophilia," in that before we can act with care for our places, an appreciation and emotional attachment to our places is necessary.

Cultivating an aesthetic sensibility is an action that requires slowing down our minds and paying attention to what is right in front of us, and developing an appreciation for what we see in our everyday worlds. In a delineation of the ideas of various educational philosophers from Plato to Whitehead, Caranfa (2007) links contemplation and quiet thought with the development of an aesthetic sensibility, and further suggests it is necessary for the good of all—for optimum living, learning, and working. Cultivating an aesthetic sensibility does not require formal art lessons, nor is it an act of creating art. It is an activity, or a way of being and appreciating, that people can develop as they go about their daily routines, as long as they are paying attention and noticing. Inviting students or colleagues to walk down a hallway in the early morning and notice the light, or the silence, or the feelings they encounter, is an example of such an activity. A walk along the banks of a local creek or dugout and noticing the various lifeforms, sounds, and emotions that arise is another example of paying attention to the everyday and cultivating an aesthetic sensibility.

Educational Context

As noted above, everyday aesthetics is concerned with those experiences that are right in front of us, rather than having to look elsewhere for aesthetic experiences. A parallel can be drawn between acknowledging the importance of everyday aesthetics and, within the environmental education world, acknowledging the local environment, rather than giving preference to, or requiring fieldtrips to, "wilderness" and "last frontier" environments elsewhere. Although she is referring to the overall discourse of environmentalism and not to environmental education, Yuriko Saito (2007) reinforces the importance of attending to our everyday places as we learn to cultivate an aesthetic sensibility when she states:

This dominance of wilderness aesthetics in environmental discourse consequently eclipses the equally, or even more, crucial significance of our aesthetic reactions to our backyard as well as to everyday objects and activities, which generally do not provide memorable experiences or occasions for reflection. We thus tend to overlook their unexpectedly significant role in affecting, and sometimes determining, our ecological awareness, attitude and ultimately actions, thus literally transforming the world. They appear trivial, innocent, and insignificant, when in fact they are not. (p. 57)

Two caveats. One: If the everyday aesthetic in the backyard of your community is of the "wilderness" variety, this is a valid locale for people in classrooms and communities to cultivate an aesthetic sensibility. The goal is to pay attention to what is right around us. Two: If what is right around us is largely altered landscape, reflecting the ongoing ravages of neoliberalism and the subsequent loss of natural areas in urban centres (or the construction of fake natural areas in urban centres), I am not advocating for acceptance of such alterations or an uncritical stance. While it is the case that cultivating an aesthetic sensibility is an activity undertaken in order to notice the aesthetic that is right in front of us, noticing, for example, the shadows cast from a wall of scaffolding along a walkway does not pre-empt also asking about the reasons landscapes are altered and for which/whose purposes. This active, analytical approach to everyday aesthetics heeds the call from Derby, Piersol, and Blenkinsop (2015) for a critical place-based pedagogy, and attends to their cautions against settling for colonized environments with artificial fountains in "parkettes."

In relation to pedagogical contexts and environmental education, David Orr (2004) reminds us:

Virtually all environmental activists, even those whose work is focused on global issues, were shaped early on by a relation to a specific place. What Rachel Carson once called "the sense of wonder" begins in the childhood response to a place that exerts a magical effect on the ecological imagination. And without such experiences, few have ever become ardent and articulate defenders of nature. (p. 161)

Orr also suggests that awareness about the local watershed is practical knowledge for everyone, regardless of location.

The ubiquitous presence/absence of water and the many environmental issues related to water are perhaps some of the most contested environmental issues in the world today. What goes into water, what gets transported on water, what gets taken from water, diverting water, damming water, water quality, and water "management" are just a few of the current environmental concerns. On a local level, getting to know the bodies of water in and around a community, and caring for those bodies of water, is a simple approach to cultivating an aesthetic sensibility and attending to everyday aesthetics. Water is a theme that appears in many local stories and legends (stories of fishing, swimming,

holidays, mishaps, vistas experienced around water, etc.). When undertaking a study of local bodies of water with students, you might collaboratively compile a list of the local bodies of water, and then invite students to choose one of those bodies of water and conduct an aesthetic inquiry related to it. The inquiry could take into account information gathered from the natural environment surrounding the body of water, stories and legends local people tell related to that body of water, historical and current facts, sketches, photographs, and collage work that incorporate natural elements found near, in, or on that body of water.

On the following pages I include selected excerpts from a mapwork project that explores bodies of water on the prairies. The bodies of water mapwork project is a collection of facts, stories, poems, and photographs. I have arranged the collection alphabetically, into the format of a "companion" to an atlas. For the most part, the entries in the companion are based on fictional accounts, a number of facts and rumours, and local history and lore. Each entry consists of a body of water, or a term related to water that is accompanied by a definition. Some of the entries also include stories and poems along with the definition, and I have included samples of these. The excerpts on the following pages were selected to illustrate bodies of water that occur naturally on the prairie landscape (e.g., lakes, sloughs) and those occurring on account of human intervention (e.g., dams, dugouts).

The North American prairies are often equated with dry, arid, sometimes drought-stricken lands. This generally flat region is an area that throughout various eras of geological time held networks of shallow inland seas and glacial lakes. Were it not for the pre-historic presence of these expansive bodies of water, the prairies would not exist today. In geological terms, vast areas of the dry and flat northern plains still carry the memory of water in their settler nomenclature—Williston Basin, Glacial Lake Agassiz, Regina Lake Plain—and place names of Indigenous and settler origins reveal a reverence for moisture: Drinkwater, Goodwater, Swift Current.

Water is called up in the language used to describe prairie vegetation. References to "drowning in a sea of wheat" and "rolling waves of wheat" are ascribed to large expanses of croplands that now cover what used to be vast stretches of inland seas. As the prairies were populated with settlers and eventually cultivated, the presence or absence of water became the impetus informing farming practices and settlement. Likewise, its presence or absence influenced the overall mindscape of the people living there. Perhaps the excerpts of mapwork on the following pages will serve as a starting point for similar "activist" environmental education as well as for the cultivation of an aesthetic sensibility in classrooms and communities.

Excerpts from: Bodies of Water: Partial Companion to a Prairie Atlas

August Puddle in a Prairie Lane

AN•CIENT **L**AKE **B**ED [ān' tshënt lāk bĕd]
1. A large area of low flat land once covered by a prehistoric lake. The dry and arid plains region of North America exhibits the remains of these fresh water lakes. What was once lake is now referred to as prairie or plains. *n*.

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BA•SIN [bā' sën]
1. A large area of low flat land holding a network of waterways (rivers, creeks, lakes) and drained by these same bodies of water. *n*. 2. A shallow bowl, most often made of plastic. Many prairie basins were blue-ish green and plastic (circa 1950-1965), sometimes located in the porch, or on a kitchen counter. People used them to wash up when they came in for coffee, lunch, and supper. Also used for washing dishes and babies. Children used them to cool off on hot summer days—filling them with cold water for water fights or *who-can-hold-their-face-under-water-the-longest* contests. *n*.

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DAM [dăm]

1. A reservoir of water blocked at one end, to hold spring runoff and divert creeks and rivers. Dammed water is often used for parks and recreation, irrigation procedures, and to power hydroelectricity generating stations. *n., v.*

Rare, Endangered Fauna and Flora in the Dam Area[1]

cooper's hawk sparrow burrowing owl eastern bluebird great gray owl loggerhead shrike peregrine falcon piping plover whooping crane prairie long-tailed weasel hall's bluestem red three-awn whorled milkweed side oats small white lady's slipper heavy-fruited sedge rigid sedge engelmann's spike rush prostrate spurge jerusalem artichoke white-flowered prairie parsley prairie false dandelion small yellow monkey-flower smooth cliff-brake western spiderwort white milkwort tumble grass gama grass buffalo grass witch grass

© Photo by W. Hurren

Rafferty Alameda Dam Cite/Sight

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[1] Adapted from *Rafferty-Alameda Project Technical Report (1989) Vol. 1: Initial Environmental Evaluation.* Regina, SK; Environment Canada

Dug•out [dŭg' öut']
1. A large scooped out depression in the land, created to hold rain and moisture run-off from a surrounding area. Dugouts range in size, the average being slightly larger than an Olympic swimming pool, and with a depth of 15–20 feet. Following a decade of drought during the 1930s, the Prairie Farm Rehabilitation Act (PFRA) facilitated the excavation of over 250,000 dugouts on the prairies.[2] These dugouts also served as reservoirs for work crews building roads across the prairies. For this reason, many dugouts are situated close to grid roads and highways. Now legally required to be fenced in, dugouts provide a water supply for livestock, gardens, lawns, cisterns, farm operations, etc. *n*.

Five Reasons Never to Swim in a Dugout
1. Many dugouts do not have sloping edges. The steep banks make it difficult for someone to scramble out.
2. Weeds grow exceptionally long as they reach for the light at the surface of a dugout. These weeds can cause trouble for swimmers.
3. As a body of still water, the surface of a dugout is warmed by the sun, but just a few inches below that, the water is very cold. People jumping or falling in from a raft or inner tube encounter the frigid water below the surface and involuntarily gasp, beginning a cycle of breathing in water instead of air.
4. Dugouts are a sure source for "the itch."
5. Parents usually punish children caught swimming in a dugout.

They were heading towards the far end of the dugout when their only paddle slipped out of Gary's hands. It was a metal shovel that had lost its edge. Gary found it in the junk pile behind the chicken coop. When the others saw it sinking down, they hollered to grab for it. But too late. And they all knew better than to leave the raft and go in after it. The shovel quickly disappeared in the dark water.

Remembering that long ago spring morning, Julie sometimes gets stuck in a loop of *what ifs*. *What if* they had taken turns instead of all five piling on the raft together? *What if* she had slept late that morning instead of meeting to ride over to Gary's farm? *What if* someone had seen their bikes hidden in the caragana hedge and ordered them out of the dugout?

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[2] See *Qualtiy Farm Dugouts* (2002). Edmonton AB: Alberta Agruculture and Forestry.

Julie offered a plan. "What if we all move real slow and each take a side of the raft? I'll go to the middle for balance. Then you guys each put an arm in the water and paddle us back to the edge and we can get out."

"I say we start hollering for help as loud as we can," said Gary. "Maybe someone will be out in the yard and hear us."

They all said no to that and to the heck they would get for being in the dugout. Careful not to cause the raft to tip, they each moved towards an edge. Julie sat in the centre, for balance. Gary said he could give some extra help by sitting at the back edge and using his feet to kick and add propulsion. Since he was the one who dropped the shovel. They all agreed. The raft began slowly moving back towards the long weeds near the edge from where they had launched it.

In the hours and days and weeks that followed, they could not explain or remember for sure what made Gary lose his grip along the back edge. Maybe his legs brushed against long weeds in the water and he got spooked and let go. Maybe he was just fooling around and thought he would scare them. Maybe there was an argument about moving over to make more room and a quick shove. But once he was in the water not one of them could forget what happened next. They saw Gary's eyes grow large in the icy water. They tried reaching out to him, but as he struggled he slipped further under the surface. He wasn't waving and splashing wildly like in the movies, but their arms just couldn't reach him. When all the commotion made the raft start to tip, not one of them dared jump in to try and help Gary out of the water. Before his face went under for the last time, they had never seen anyone look that calm. And that's when the four of them started hollering for help.

When they realized no one would hear them, it took 40 minutes of maneuvering, using just their arms as paddles, to get back to the steep, weedy edge and scramble out of the dugout. Leaving their bikes in the caraganas they ran around the hedge and across the farmyard up to Gary's house. His mom saw them first.

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Slough [slü]
1. A body of fresh water that collects in low-lying areas of prairie fields. Formed by rain and snowmelt, in wet years sloughs are resting places for migrating geese and ducks. Flocks of Sandhill and Whooping Cranes [see also *Crane*] are a special sight on prairie sloughs in the spring and fall. Because of the large areas encompassed by sloughs, and the seemingly random locations, roads are built to go around sloughs, creating curves along what are usually very straight roads. Vehicles that fail to negotiate these curves sometimes end up in sloughs. Sloughs are not used for recreational purposes because of the swampy soil under the shallow water. *n*.

My Grandfather's Memory of a Local Slough

In 1919 and '20 I worked for Mr. Shire, a bachelor who lived just west of town. He had two cows and two horses and needed hay for them. I got a dollar a day helping Mr. Shire put up hay. We went three miles east of town to a place we called "The Stanley Farm." John Stanley was the weed inspector for the municipality. We had lunch together, and then went out to cut some hay in his slough. It was a turtle-back slough so rough you had to wrap your legs around the mower seat to stay on. In normal years there was water in the slough, but this year it was dry. The hay was short but good. That night we brought two loads home. Mr. Shire didn't have any water on the farm so he watered at the town windmill. Mr. Shire was ahead of me. He went on home and my team went to the well. I was asleep on the load and didn't know this. The water trough was empty so the horses waited at the well and that's where Mr. Shire found me. When I didn't show up with my load of hay, he came looking for me.   *-Jim Groshong*

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THE LAKE [thë lāk]
1. A generic term applied to most prairie lakes. Locals assume others will know which lake they are referencing. *n*.

© Photo by P. Cooper/W. Hurren

At the Lake

The Lake, After a Sunday Drive
Back then, the sand was not so fine. Small rocks made blankets necessary.
Even a car blanket would do.
Scratchy wool a small price to pay for sunshine and hot dogs.
Purses and sandals piled to the side, we stretched our legs and leaned back.

Even a car blanket would do.
He looked like he could be anybody, my father without his white undershirt.
Purses and sandals piled to the side, we stretched our legs and leaned back.
No towels for drying, we ran from the water shivering and huddled.

He looked like he could be anybody, my father without his white undershirt.
A photograph shows my grandparents sitting side by side.
No towels for drying, we ran from the water shivering and huddled.
Their shadows falling across my aunt with her newspaper.

A photograph shows my grandparents sitting side by side.
My older sister squinting into the sun, hair drying in fine curls.
Their shadows falling across my aunt with her newspaper.
Behind us, cartoon cars lined up along wooden stump barricades.

My older sister squinting into the sun, hair drying in fine curls.
Scratchy wool a small price to pay for sunshine and hot dogs.
Behind us, cartoon cars lined up along wooden stump barricades.
Back then, the sand was not so fine. Small rocks made blankets necessary.

Notes

[1]   The Leap Manifesto (Klein, Suzuki, Cohen, Sutherland; https://leapmanifesto.org) calls for respecting the inherent rights and title of the original caretakers of this land and Indigenous communities, for energy democracy, and for localized and ecologically based systems. It declares, "Now is the time for boldness. Now is the time to leap" (2015). While signing an online manifesto might be labelled "slacktivism" by some, the manifesto is also promoted through community events and gatherings, and along with individual signatures, there is a growing list of Canadian organizations signing on.

[2]   Mapwork as an Approach to Exploring Notions of Place ad Identity, Social Sciences and Humanities Standard Research grant, Principal investigator Dr. Wanda Hurren [401-2005-298].

[3]   See *Canadian Journal of Environmental Education, 7*(2), 2002, Special Issue: Telling our Stories; see also Gaylie, 2014; Howard, 2010; Blenkinsop & Judson, 2010; Piersol & Timmerman, 2017.

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Creating Space for Teacher Activism in Environmental Education: Pre-service Teachers' Experiences

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Abstract

Ontario, Canada mandates integrating environmental education (EE) into all subject areas from K-12, but pre-service teachers receive little to no instruction on how to do so. This study focusses on the experiences of 13 pre-service students who demonstrated their passion for EE through their own activism and volunteerism. Findings include the participants' definition of activism, lack of acknowledgement of activist experiences within the program, and participants' worries about being positioned as radical. Further, participants expressed a need for support, space, and time within the pre-service program to discuss these experiences and share ideas and resources within the teacher community. Suggestions to augment teacher education programs and for further research are provided.

Résumé

L'Ontario intègre l'éducation à l'environnement à toutes les matières de la maternelle à la 12e année, mais les enseignants en formation ne reçoivent que peu ou pas d'instruction à cet égard. Cette étude relate les expériences de 13 étudiants en enseignement qui ont montré *de l'intérêt pour la cause environnementale en s'impliquant dans leur communauté. Ils nous font notamment part de leur définition de l'activisme, du peu de reconnaissance que cette expérience reçoit au sein du programme, et de leur crainte d'être* étiquetés comme radicaux. *En outre, ces étudiants aimeraient être épaulés et profiter de plus de temps et d'espace pour partager leurs expériences, idées et ressources avec leurs pairs. Les auteures offrent des suggestions pour améliorer les programmes de formation des enseignants et orienter les recherches futures.*

Key words: environmental education, activism, curriculum, teacher identity

Introduction

This paper presents findings from a phenomenological study of how pre-service teachers (n = 13) reconcile an activist identity with their teacher identities. Activists are defined in the literature as individuals who play a role in social movements and form a community, or a collective "we" against a problem; this community may focus on the creation of new ideas (Starr, 2010). Generally, activists seek to alter a problem or issue, and the resulting action depends on the identification of who or what is to blame (Benford & Snow, 2000). While

there are many types of activism, such as those that focus on gender, sexuality, different abilities, and equity, this paper aims attention at activism related to the environment. The definition of EE has historically included some tie to action by an individual or group wanting to change an aspect of the environment (UNESCO-UNEP, 1978). This paper also presents the argument that schooling must be more democratic if educators are to realize the vision whereby teachers can safely express their environmental ideals and activist endeavours.

Through a series of open-ended interviews with 13 teacher candidates enrolled in a large initial teacher education program, we sought to explore the experiences of activism in the candidates' terms, allowing them to define what they meant by activism and how they viewed it in the light of their emerging teacher identities. In what follows, we briefly discuss both environmental education in Ontario and democratic schooling before sharing the findings from our study. The literature is interwoven throughout. We end with implications for teacher education and suggestions for further study.

Environmental Education in Ontario

In 1998, the environmental science course was removed from the Ontario curriculum, an act accompanied by a dramatic decrease in attention to environmental issues in secondary schools (Puk & Behm, 2003). Puk and Makin (2006) show that, in the same year, 88 % of elementary school teachers taught EE two hours or less per week. Despite this apparent lack of attention to EE, Canadians have become increasingly aware of environmental issues and have thus grown more interested in including environmental learning in all sectors of society, including the classroom (Russell & Burton, 2000). The Ontario Ministry of Education (2009) has responded to this interest through the publication of "Acting Today, Shaping Tomorrow," which mandates the inclusion of socially relevant, culturally appropriate environmental issues into every subject from kindergarten to grade 12. This document also calls for integrative curriculum, which aims to link real world experiences with curriculum across subjects. Pre-service education programs, however, rarely offer courses to help pre-service teachers develop interest in, knowledge about, or teaching skills for EE (Puk & Stibbards, 2010). This lack of training in EE integration is a major cause of curriculum failure in the classroom and one of the most important issues facing EE (Goldman, Yavetz, & Pe'er, 2006). Pre-service teachers are thus left to rely on their prior experiences with respect to environmental causes, such as their activist endeavours.

One could interpret the action-oriented approach to local environmental issues championed in "Acting Today, Shaping Tomorrow" (Ontario Ministry of Education, 2009) as encouraging teacher activism. However, dominant discourses in education tend to exclude the possibility of an activist identity, leaving teachers who do identify as activists fearful of being identified as mavericks

(Barrett, in press). Indeed, dominant discourses about what constitutes a good teacher favour individualistic and apolitical educators (Barrett, Ford, & James, 2010) over teachers who are oriented toward the "group action" characteristic of activism. Further, despite efforts and policies created to reform teacher training by breaking down hierarchical views of academics, practitioners, and community members, most institutions still value following dominant societal views of teachers and their roles (Zeichner, 2010). The current ethos of public schooling, with its claims to benevolent neutrality, is not conducive to teachers' recognizing themselves as political actors. Indeed, official gestures through policy and curriculum changes towards educating students for active citizenship tend not to see teachers as political agents.

Democratic Schooling and Environmental Education

Democratic approaches, where the discourse encourages the open flow of ideas, faith in the collective to resolve problems, and a critical reflection on policies and procedures, could provide the conditions necessary for both teacher and activist identities to emerge (Beane & Apple, 1995). Teachers are involved in curriculum and policy creation and reflection, and this can help empower teachers to reconcile their identity as teacher with their identity as activist; this approach could also be applied early on to pre-service teachers (Beane & Apple, 1995). Democratic conditions can also lead to communities of practice where activist identity is safely expressed and used to define pedagogy that facilitates respect and collaboration among teachers (Sachs, 2001). This collaboration could counteract the barriers educators face when teaching EE, such as lack of resources or support, or fear of controversy (Barrett, in press). Teachers could use personal experience to teach EE, regardless of barriers and available resources, and without relying on school curriculum or formal support (Astbury, Huddart, & Theoret, 2009).

Both authors have integrated EE into our work in different ways. One taught science for a decade, using a passive approach to EE. She deliberately included environmental education throughout her teaching, without engaging in individual or group activism in the community. As a professor, her research has focussed on new teachers' struggles to include, or grapple with, social justice issues in their teaching. The other author went to graduate school following a pre-service program, spending time working as a naturalist and conducting research in food literacy and education. Our backgrounds' serve as evidence of our interest in the topic and provide context for our analyses. Although the bracketing required by phenomenological studies cannot eliminate the influence of our interests on our analyses, declaring them allows readers to recognize how our experiences influence our depiction of the participants' experiences.

Methodology

We chose a phenomenological approach, based on Creswell's (2000) guiding framework, to gain insight into how pre-service teachers make sense of their teacher education experiences. Following Creswell's (2013) model, the authors honoured the participants' views as complex and authentic, informed by places and experiences they encountered during their education and activism, either currently or historically.

We recruited participants through email, class visits, and social media. Two participants, as disclosed on the ethics report, were former students of one researcher. Inclusion criteria was: being a teacher candidate and having a background, passion, or interest in environmental issues (See Table 1).

Table 1: *Participants*

Participant*	Age	Sex	Certification Grade Level	Activist Identification	Subject Specialty
Alex	19	F	7-12	Y	History
Thea	19	F	K-6	N	n/a
Casey	28	F	K-6	Y	n/a
Diana	20	F	4-10	Y	English
Ella	20	F	7-12	Y	Environment/French
Finn	28	F	7-12	N	Geography/Environmental
Grace	27	F	K-6	Y	French and German
Holly	43	F	K-6	N	n/a
Isabelle	23	F	K-6	N	n/a
Sam	X	F	K-6	Y	n/a
Smith	24	M	7-12	Y	Drama/history
Kim	21	F	7-12	Y	Geography/English
Beth	30	F	7-12	N	n/a

*Pseudonyms

Each participant completed a demographic questionnaire and took part in two semi-structured interviews (30-60 min). Each interview was audiotaped and fully transcribed. For data analysis, we used NVivo (data analysis software) to aid in coding the emergent themes. A list of non-repetitive and non-overlapping significant statements was coded from the transcripts (Holstein & Gubrium, 1995). Themes within significant statements were then coded in NVivo. For example, under activism, significant statements, including phrases such as extreme,

passion, and passive, were coded. Themes that were common among partici-pants were grouped, allowing patterns to emerge. Each theme was considered individually. We then developed a written description of participants, including verbatim examples from the transcripts. As data analysis was ongoing, we con-tinued to recruit participants until data saturation was reached.

Validity was established by: (1) providing transcripts and researcher notes to participants, allowing them to verify the text and clarify the meanings of their experiences; and (2) having multiple sources for the same concept.

Findings and Discussion

We identified three themes, each of which we will discuss in detail below: (1) identifying as an activist; (2) being an activist teacher; (3) activism and teacher education

Identifying as an Activist

Participants were involved in a variety of activities/activism such as conservation work, local cycling initiatives, food policy in schools, outdoor education, food justice organizations, women's shelter, guerilla gardening, sustainable co-operative, public health research, YMCA, and an Ecoclub. The questions "do you identify as an activist?" and "how would you define activism?" were asked of each participant. In total, 8 of the 13 pre-service teachers identified as activists—either as environmental activists or as food activists, or as both (Alex, Casey, Diana, Ella, Smith, Sam, Grace, and Kim). Overall there was no explicit pattern between teachable subject area and willingness to identify as an activist. Participants defined activism variously as someone who: (1) cared about the environment; (2) took measurable and grand action; and (3) sought to spread awareness.

Participants saw an activist as someone who cares about the environment, noting that activists "want to make a difference" (Alex) and "make the world a better place to be in" (Sam). Alex expressed frustration about the lack of caring amongst people in her courses. She explained, "I find a lot of people are like, 'Who cares? [Environmental damage] is in the past.' But it does matter and… it still spills into modern day. Especially with the environment, it has such a big effect."

Smith stressed the importance of caring about the environment, stating, "For myself I would define [activism] as an interest in the environment and try-ing to pursue the care of and conservation of it." One way to express this care of the environment, and its' betterment, is to be an activist who is involved in making a change. Sam believed an activist looks outward to find "ways you can improve" the world for others, and to "be the change that you want to see" in the world.

Pre-service teachers believed that activists are action oriented, usually in formal ways. Grace believed that "as an activist you are supporting the advancement of that organization...through writing their MP/MPP or attending rallies." She believed that activists take "it a step further" than merely displaying passion. This is a typical interpretation in the literature, in which social movements and their members are often defined as a group that has a formal organizing principle, and who defines a problem and aims to fix it through action (Benford & Snow, 2000; Starr, 2010). The relationship between environmental issues and action is often a key component of environmental education (UNESCO, 1997).

There were some discrepancies amongst the participants' explanations of what counted as action. Casey assumed that only her "larger scale" and "formal" involvement counted as activism. She explained, "I definitely would consider myself an activist but perhaps on a 2 or 3 level scale out of 4. Like 2.5." This was indicative of the tendency amongst participants to define an activist as someone who makes grand or extreme gestures. It was an interesting revelation to Casey that the smaller scale, personal choices that she makes "on a daily basis" would count as activism. Diana expressed similar sentiments. At the beginning of the interview, Diana expressed that an activist "lived for the cause." As our conversation progressed, she reflected on her lifestyle choices. She decided that "choosing to eat healthy and not litter, and being conscious of your decisions" was not something she would have considered activism, but she now recognized it could be defined as such.

This lack of certainty about what is accepted as activism and what is not is also prevalent in the literature. Traditionally, activism or social movements are defined by organization and collective—by a group of people undertaking large projects to make an impact (Marx & McAdam, 1994). Lifestyle movements, which focus on the changes individuals make to their everyday lifestyle (as opposed to focussing on mobilizing the public to make changes), is becoming more accepted as activism (Haenfler, Johnson, & Jones, 2012). Another participant, Finn, also exhibited activism through lifestyle choices such as not "eating certain foods or buying certain products, based on where they come from or the company that owns that product." These actions may be small and informal, but they are still tied to environmental work.

One could criticize the notion that purchasing products is an expression of an individual's activist and environmental ideals on the grounds that the citizen–consumer hybrid is unbalanced. The action addresses the consumerist aspect more than it suggests that an environmental citizen is making an actual difference (Johnston, 2008). EE has long been linked to a neoliberal framework that transforms an environmental issue into an economic one, thus making the solution consumerist based (Hursh, Henderson, & Greenwood, 2015). The problem is that this neoliberal framework of environment seeps into the curriculum, reducing the focus to things like purchasing hybrid cars or the "right" light bulbs (Hursh, Henderson, & Greenwood, 2015).

Our participants defined activism as action and personal experience, an attitude that supports the role of the teacher described in "Acting Today, Shaping Tomorrow" (Ontario Ministry of Education, 2009). In this publication, that role is to guide "field-based pedagogical skills" and "develop knowledge and perspectives about environmental issues" (p. 11). The document also acknowledges that "student engagement and leadership are central to environmental education" (Ontario Ministry of Education, 2009, p. 25). Moreover, it recognizes the valuable educational opportunity that community partnerships can provide students (Ontario Ministry of Education, 2009, p. 25). However, it fails to acknowledge the role the teacher could play in enriching this process by exposing students to new experiences, sharing their own passion and activist endeavours in the classroom, and bringing new partnerships to the school.

From the participants' perspectives, passively integrating environmental activism into the Ontario school curriculum was appropriate and stayed true to her style of teaching and her identity as a teacher. Grace approached EE by "just [embedding] it into everything we do," but she also considered that form of EE to be "passive," claiming that activism, by contrast, "implies that you are actively doing something." Casey also hinted at this relationship of passive/active activism when she described "different levels" of activism. Holly used the same terminology, explaining that even though she makes a point of linking her environmental ideals and work in the classroom, it is not activism: "What I am doing is embedded in [the Ontario school] curriculum across the board. It is subtler than that I think. I have never thought of myself in that way. Not as an activist." Diana seemed very dismissive when talking about her method of incorporating her environmental work into the classroom, wondering "if it even counts." Making an active choice, to link their activism and environmental values to the curriculum, was downplayed by participants as a passive, less impactful action. This may relate to how teachers, who are often passionate about the environment, not only feel they are acting in isolation but also fear they are appearing in an unflattering professional light (Pedretti, Nazir, Tan, Bellomo, & Ayyavoo, 2012).

Participants discussed the definition and role of an activist, which included information sharing and raising awareness. Isabelle explained that an activist's role "would be defending or trying to make people aware of a certain topic…you are trying to spread awareness or make a change in certain areas." An activist, as defined by Ella, makes it a goal to be "involved in issues and informing yourself on issues" that are important. Finn explained that she tried "to share with people who will listen, what I think, and what I have learned," though she was unsure of the impact. Writing is also a form of educating on environmental issues; Isabella recounted writing about her experience attending a march against Monsanto and harmful agricultural practices. She said, "I also posted about that on my blog which is also a part of activism as well." She understood an activist to be knowledgeable on an issue they are passionate about and to act on this

knowledge. This notion helped some pre-service teachers feel able to identify as "activist teachers."

Even though participants exhibited actions that aligned with their definitions of activism, most did not use this term to describe themselves. This was due, in part, to their belief that society paints activists as extreme or radical. For example, Smith believed others defined activists as being "the people …who are chaining themselves to trees, and making sure they are not eating any animals, or not wearing any fur, or almost environmental extremism." He found that his interest in the environment "scares people."

Despite making several lifestyle changes, including adopting a vegan diet to protest factory farming, spearheading several EE initiatives, and advocating for environmental policy changes on campus, Ella shied away from identifying as an activist. She joked that an "activist is not as bad as eco-activist or eco-terrorists." She believed people often use the term *activist* in an effort to be politically correct, when they really believe that the described action is extreme. Holly agreed that there is negativity surrounding the term:

> I think activism has gotten this negative connotation to it. It is interesting because there is research that says if you get really militant about things people will actually do less. They pull back more. It gets too scary, too big, I can't do it. I think that is maybe a little bit of it.

Participants tended to downplay their involvement in environmental issues on account of the negative connotations—including extremism—associated with such activism. Finn explained that while she does many things to help the environment, she avoids activities that may be perceived to be radical:

> I don't go out into the picket line and hold a sign and chain myself to trees. When I hear "activist" that is kind of what goes through my head, that is what I picture…but I guess you could almost be a silent activist and I think that is more of what I am.

Likewise, Beth tended to downplay her involvement in the environmental movement saying:

> I know a lot of people that are involved in things, and they talk to me about it all the time. I am aware of things, but other than just remaining aware and helping them if they ask, I haven't done much.

The discourse of what it means to be a teacher that pre-service teachers encounter, both in the Bachelor of Education program and in the Ontario classroom, may be the root of their discomfort and the reason for the way they are dismissive of their own related actions. As previously mentioned, a democratic approach to education could enable educators to more comfortably identify as both a teacher and an activist since it fosters this dual identity and supports creation of a community based on experiences (Beane & Apple, 1995). They

form a basis of meaning and identity for pre-service teachers and impact the way they teach (Melville, Bartley & Weinburgh, 2012). If pre-service teachers encountered a school structure that supported their activist work and interest in EE, they might feel more confident and less uncomfortable integrating EE into their teaching.

Being an Activist Teacher

In interviews, some participants saw themselves as educator–activists, as individuals who raised awareness and educated the public, but others were afraid to blend education and activism, citing their fear of being political or inappropriate in the classroom as cause for caution. Smith broached this issue by stating, "I know we are not supposed to be political as teachers, but environmental issues are political." Kim noted, "There is a risk of identifying as an activist. For people who want to be formal educators in classrooms, those identities can be problematic to bring into the space where your principal and superintendents can view it." This is especially true if they want to be viewed as doing their job properly (Jickling, 2003).

Some participants believed that society needs to be aware of EE and aim to create change as part of the activist role. Many, however, dismissed their own role as activist/educators; they did this even while they articulated their belief that information sharing and educating the community - activities they already engage in - was part of the role of an activist. For example, despite integrating EE into her teaching, Diana did not feel that teaching in and of itself sufficiently comprised "activist" activity. She explained, "I take an interest in this stuff but I don't feel I have done anything proactive that would make me an activist." Holly noted that "activist" is not a title she used, explaining:

> I have never used that label about myself. And it is certainly not the way I think about myself. So, when you think of an activist, you think of them physically doing something or mentally doing something to change or support or to educate in a more formalized way.

School is a formal way to educate and certainly takes mental effort to accomplish, yet these efforts are diminished by the participants. Despite referencing attributes that both a teacher and an activist need to have, Holly still does not consider herself an activist.

Sam seemed to be alone among the participants to embrace the idea of being a teacher and an activist. She explained that when she thinks of her own teaching philosophy she believes she is "an activist":

> I would consider myself to be an activist. If I am a teacher and I am talking to my students on an everyday basis…I see that I am relating this [environmental issue]… on a scale of one to ten I would put myself an eight.

Here, Sam emphasizes how her dialogue and daily actions as a teacher are impacted by her activist ideals.

Activism and Teacher Education

Study participants believed that if there were space to share their activist experiences in their initial teacher education program they would feel that their activist work was valued and supported in the educational context. Grace suggested that allowing pre-service teachers to make links between their volunteer work and classroom assignments was one way for the teacher education program to help pre-service teachers to be ready to teach EE. Kim thought that pedagogy should make explicit links between social justice and environmental issues. Providing space for pre-service teachers to guide their own learning could be an effective way for EE and activism to become part of the B.Ed. program.

One large-scale Canadian study found that to teach EE, teachers needed to place less emphasis on new classroom curriculum, instead developing community partnerships and maintaining their own support networks (Astbury, Huddart, & Theoret, 2009). This notion was framed as "innovation on the margins" (Astbury, Huddart, & Theoret, 2009, p. 167). The experience of teachers in this study seems to support this idea.

EE does not necessarily fit into a curriculum box which makes it difficult for pre-service teachers to do EE, when they feel pressure to follow set curriculum guidelines (Johnston, 2009). This made it hard for participants to find space to explore environmental issues and, more importantly, to believe they had agency to create their own space. Even established teachers often feel that there is already too much material to cover, making teaching EE across disciplines—an effective method for educating about the environment—difficult (Barrett, 2007; Barrett, 2013). Teachers often feel they do not have the authority or ability to exercise independent judgment when it comes to the mandated provincial curriculum, especially as a pre-service teacher (Klaus & Jaritz, 1996). Sam believed that her main priority would be to "go with the [Ontario classroom] curriculum" despite being interested in sharing her activist experience. The pressure to follow the curriculum often makes it difficult to approach the interdisciplinary topic of "environment" practically within the classroom (Feng, 2012). Grace suggested that the new French and Geography Ontario curriculum could help create space to link environmental experiences and "a lot of those barriers [to EE] will dissipate."

Participants acknowledged the importance of past experiences, such as activist work, past employment, and familial upbringing, as essential to helping teachers to feel prepared to teach EE. Past experiences, too, would be "innovation at the margins," where pre-service teachers can use personal experiences to make direct connections to EE, rather than relying on written documents or formal support (Astbury, Huddart, & Theoret, 2009). Volunteer work and numerous environmental experiences prepared Grace "to be a vessel for" the

environment in her teaching; she felt this experiential learning helped her develop as a teacher. Alex believed her volunteer work had "given [her] more experience, with students and their parents." Holly also felt prepared because of her "own interests and research but not through the program. There has been nothing, absolutely nothing throughout the program." Finn felt prepared "to a point," but this feeling of preparation came, once again, from her past courses in environmental studies. She wondered if "[her preparation] would be as thorough or [if I] would be as passionate about it as someone who does not have an undergrad in it, or the environmental science teachable." Sam felt she was prepared due to her work in the [International] system of education: "My knowledge has come from there, not from something at [the university]," she stated. Smith felt prepared to teach EE due to his upbringing:

> I feel prepared because I have the parents I did. I didn't take EE ever as a course, I have done some self-research on it but growing up I have had two parents who are interested in it and cared about it and who made sure I was outside.

Feeling prepared has many dimensions. While Casey felt the B.Ed. provided her with resources to teach EE, she ultimately believed that, compared to her passion and activism, it did little to prepare her to be an environmental educator. She stated, "I would say most of it comes from my own passion and fund of knowledge. But has school made me prepared? I don't know. Probably two out of ten."

An increase in experiential learning, such as community partnerships and field trips may increase knowledge. This is typically how EE is addressed in Canadian schools, though doing it effectively requires time and space (Breuing, 2013). Past encounters with experiential learning impacted how pre-service teachers felt about being environmental educators. These experiences were often tied to the reason they began doing activist work and hoped to continue doing EE in their classroom. While Alex lacked a formal background in EE and "wasn't really aware of that stuff" growing up, she recounted field trips she took in school. This experience inspired her to volunteer at the site of that trip, and she felt that this experience has "given me insight…and more experience, with students and their parents."

Similarly, Thea recounted an experiential learning experience where she was taught

> how to eat environmentally friendly. Like using re-useable bins and stuff. That was really fun, I still remember feeding black capped chickadees from my hand. I think that is important to remember these experiences and remember why the earth is important to you and what you want to do to save it.

Isabelle also reflected on the relationship between experiential adventures and her ability to teach EE. She recounted, those experiences:

I went to [a local] conservation area and we stayed on an overnight trip and went cross country skiing and made a fire and learned about animals and those experiences, those trips…made [more of] an impact on me than what my teacher said in the classroom.

The emphasis on experiential learning, and the impact it has on knowledge and interest in EE is one avenue to explore for pre-service education.

Participants' Recommendations

Participants made several recommendations for integrating EE into their pre-service curriculum and for the support they needed. The B.Ed. program should provide opportunities to engage in experiential learning since field trips and hands-on experiences were found to be impactful and meaningful. It should also include discussions about how to integrate the materials and resources related to activism into the classroom. This could be done in a variety of ways, including art, written assignments, self-reflection, or group discussions. Furthermore, participants felt they had interesting and unique experiences that were not being recognized. Not only would recognition increase confidence to incorporate EE, it would also place value on these experiences.

Ultimately, pre-service teachers observed a lack of discussion about environment and their activism in their program. This shortcoming marked a missed opportunity for pre-service teachers to learn about environmental issues and for activist teachers to share experiences and resources and to make useful connections with others. Creating collaborations between community organizations and passionate teachers is a way to support teachers who want to use a variety of methods to teach EE (Astbury, Huddart, & Theoret, 2009). These collaborations enrich the classroom, infusing it with new ideas and new materials, and may help fill gaps caused by any individual teacher's lack of confidence. It also reinforces the ideals in EE, where EE is defined as action and making a difference.

Another recommendation is to make the connection and reconnection between past experiences and current pedagogy by engaging in reflective processes. This "enables educators to refine their practice, in response to the contextual circumstances of their work, and supports continuous development of effective pedagogy, processes and policies in schools in response to changing knowledge in the field" (Daniel, Auhl, & Hastings, 2013, p. 159). But the responsibility of raising awareness and sharing experiences need not fall solely on the professors in the education program. Students have a variety of experiences and resources to share, yet many feel there is little opportunity to do so. Casey specifically mentioned a way to share ideas with her peers that she believed would be helpful:

if there was a group that I could become a member of, where all we did was talk about how we could take our learning and transform it into practice, like I would go every week. I definitely would take any opportunity to take help and resources to make my ideals a reality. So, are there opportunities? I feel bad saying it but maybe limited opportunities.

Students may need to generate these opportunities themselves by creating a community of practice. Here pre-service teachers could share feedback regularly, reflect on their experiences together, and examine how concepts are understood in the current system (Han, 1995; Hatton & Smith, 1995). A structural approach could be implementation of cohorts. Students interested in specific themed areas could be provided with opportunities and courses in these areas. Students could use social media forums to facilitate online or face-to-face meetings as a club or informal group. One study found that a creation of communities of practice in a B.Ed. program provided helpful and uplifting feedback, and that individuals sharing their experiences in these communities made them more aware of its impact and relevance to teaching (Daniel, Auhl, & Hastings, 2013).

Conclusion

In this study, participants defined activism as a formal and measurable action that resulted in a change or made a difference. This action could take a variety of forms, through leadership, information sharing, and lifestyle changes. Many participants felt activism could be construed as negative or extreme, thus not fitting into the image of a "well-mannered" teacher. Moreover, they made explicit links between "action" and goals to inspire change and spread awareness via their teaching and lesson plan creation, but they did not view these efforts as activism. Even so, based on the experiences and opinions of pre-service teachers, it is possible to link one's activist experiences to EE. They value their experiences and are already reflecting on how they can be incorporated into the classroom, yet they are lacking confidence that doing so is an acceptable practice. Jickling (2003) urges teachers to integrate their activist experiences into the classroom, warning that limiting these ideas may imply that environmental issues are unimportant, further feeding into the idea that environmentalism is radical and should be avoided. If new teachers are going to have an impact on political issues, teacher education should be an "empowering transformative process," not one that accepts the reality of the system as it stands (Yogev & Michaeli, 2011, p. 313). If pre-service teachers were asked to explore, connect, and share their previous experiences, it would demonstrate to them that these experiences are valuable. Further, a B.Ed. program that makes direct linkages between activist passions and resources would help strengthen the belief that these experiences are worthwhile. More exposure to EE-focussed placements

and critical discussion of current school EE policies (such as EcoSchools and EcoClub) may also help pre-service teachers formulate their own strategies and beliefs about teaching EE.

Here, we make a case for a democratic approach at the pre-service level. To prepare teachers to make connections to their activism and include this experience in their teaching, we believe that pre-service teachers must believe in their own power to effect change (Kugelmass, 2000). In this study, some pre-service teachers dismissed their actions as small or unimportant, undervaluing their power to make change through their teaching. To resist the "dominant ideologies" of the school system, pre-service teachers need to make connections to their past experiences in what Kugelmass (2000) describes as spiritual preparation. If pre-service teachers are indoctrinated into the skills and methodologies of the dominant school culture, they lose this connection (Kugelmass, 2000).

One of the main goals of this study was to find out how pre-service teachers defined terms, based on their experiences, and what supports they needed to teach EE based on how they viewed the teacher education program. The knowledge gained from this study could serve as a basis for addressing the isolation felt by activist teachers.

Further research needs to be done on the ways in which pre-service teachers integrate their activist identities into their teacher identities. Teachers are in positions of influence, and the ways in which they bring controversial issues and calls to action into their teaching need to be discussed more explicitly within teacher education programs. It would be beneficial to conduct research that focusses on specific interventions within teacher education programs with respect to the handling of controversial issues and, specifically, with the goal of helping pre-service teachers prepare to integrate environmental issues into their teaching in a way that honours both teacher and student autonomy.

Notes on Contributors

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Recultivating Intergenerational Resilience: Possibilities for "Scaling DEEP" through Disruptive Pedagogies of Decolonization and Reconciliation.

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Abstract

In the face of declining human-ecological systems, as well as intercultural and interspecies trauma, we are currently witnessing a renaissance of activist-orientated environmental education. In Canada, this work is increasingly viewed as part of a broader healing response of "DEEP" reconciliation work between Indigenous and non-Indigenous Peoples, and ultimately humankind and the planet. This article locates these themes of healing human-ecological trauma and Indigenous - non-Indigenous relationships, within the work of the International Resilience Network (IRN)—a community of practice which aims to collectively impact social-ecological resilience, in part through transformative pedagogical practices which simultaneously support Indigenous resurgence and develop epistemological and relational solidarity between Indigenous and non-Indigenous Peoples. Through our story of the IRN's inaugural summit, we share our learnings of such pedagogical practices amidst the tensions and paradoxes inherent within a decolonizing agenda.

Résumé

Confrontés au déclin des systèmes écologiques et humains, et à un traumatisme interculturel et inter-espèces, nous assistons actuellement à une renaissance de l'activisme au sein de l'éducation à l'environnement. Au Canada, on considère de plus en plus que cette approche relève d'un processus de guérison plus vaste, visant une profonde réconciliation entre les Autochtones et non-Autochtones et, au bout du compte, entre l'humanité et la planète. Dans notre article, nous relevons l'importance de ces thèmes dans le travail de l'International Resilience Network (IRN), une communauté de praticiens cherchant à favoriser la résilience socioécologique, notamment grâce à des pratiques pédagogiques transformatrices qui soutiennent la résurgence autochtone tout en développant la solidarité relationnelle et épistémologique entre les peuples autochtones et non autochtones. À travers un compte rendu du premier sommet de l'IRN, nous dégageons des leçons sur ces pratiques pédagogiques qui fleurissent parmi les tensions et les paradoxes inhérents à cette colossale entreprise de décolonisation.

Key words: Indigenous, pedagogy, activism, reconciliation, cultural change

Photo Credit Robin Haig

Figure 1. Dawn at the Pit Cook, TIX̱EN Spit

Introduction

The "Eighth Fire" (Simpson, 2008) Anishinaabe prophecy reminds us of the possibility of a new peace and friendship, hinged on a radical renewal of kinship relations, between Indigenous and non-Indigenous peoples in Canada. This vision provides us with an evocative set of images: the scorching, cleansing, and eventual re-plenishing of the land, metaphorically leaving the soil ripe for the many re-generative possibilities for Indigenous resurgence. Drawing on this theme, the editorial of an earlier issue of the *Canadian Journal of Environmental Education* articulated the possibility of an "Eight Fire Future" for environmental education, shaped by an Indigenizing agenda (Korteweg & Russell, 2012, p.7).

Our paper locates and explores the possibilities for further igniting the flames of the "Eighth Fire" (Simpson, 2008) through our story-telling about "DEEP" reconciliation efforts. We deliberately use and capitalize the term "DEEP" to convey the multi-levelled nature of reconciliation necessary to transform relations between Indigenous and non-Indigenous Peoples. "DEEP" is also intended to emphasize the depth of cultural transformation necessary to articulate our

vision of reconciliation, which we argue must occur at epistemological, relational, and ultimately material levels not only between people, but between all life forms as well. This "DEEP" reconciliation work formed the philosophical and pedagogical bedrock of the "Resilient Places–Resilient Peoples: Elders' Voices Summit" (hereafter called the Summit), held on the traditional territory of the Tsawout First Nation on what is now known as the Saanich Peninsula at the southern end of Vancouver Island, British Columbia. This four-day, Indigenous-led sustainability education forum, which served as the inaugural meeting of the International Resilience Network (IRN), was attended by over 100 people, aged between 17 and 80 years. The attendees came from Canada, Aotearoa (New Zealand), Australia, and Scotland (Williams & Turner, 2015). IRN's primary goal is to increase social-ecological resilience (the harmonious co-evolution of human and ecological systems) through connecting and supporting locally based innovations in participating regions (International Resilience Network, 2016). At the heart of this work is the resurgence of Indigenous territories and communities (Corntassel, 2012), Indigenous knowledge systems, and related ways of being "in place" within all cultural groups (Armstrong, 2015; Williams, 2012).

Our "DEEP" reconciliation work occurs at a time when many people—both non-Indigenous and Indigenous, and with varying degrees of connection to territory and traditional roots—have to some extent "lost the capacity to experience the deep generational bond to other humans and their surroundings"; it is a time of "collective disharmony and alienation from the land" (Armstrong, 2006, p.467). The roots of these now deeply fractured kinship relations are embedded within the psychic and institutional fabric of societies around the world; they are historically entwined with neocolonial establishments' systematic attempts not only to enact the cultural genocide of Indigenous Peoples but also to erase the last traces of Indigenous memory within all cultural collectives, which are now intergenerationally disconnected from place (Stewart-Harawira, 2005). These developments have inevitably prompted profound existential questions concerning what it means to fulfil our responsibilities to our human and other-than-human kin. We do not intend to displace the colonial realities and subsequent place-based-work of many Indigenous communities in our articulation of these erasures. Rather in what follows, we suggest that the resurgence of Indigenous territories and Peoples is key to remedying the previously described global tendency towards widespread disconnection that has been brought on by colonial processes.

Reflections of this nature lie at the heart of IRN's "DEEP" reconciliation work and are pivotal to theoretically grounding the Summit's pedagogical approaches to decolonization and reconciliation within Greenwood's[i] "Critical Pedagogy of Place" (2003, 2010). This conceptual framework emphasizes the restoration of place-based relationality and concomitant transformation of dominant settler paradigms according to non-commoditized cultural patterns within the bounds of the earth's ecological limits. In keeping with these concepts, intergenerational

resilience—the processes whereby people ensure to the best extent possible that the next generations of human and other-than-human relations have what they need to flourish—became the Summit's "hinge" theme. Implicit in this idea is intergenerational knowledge transmission within and between species.

IRN's 5-7-year vision is an established community of practice which, through intercultural, intersectional, and intergenerational approaches, draws on a range of world views, creative synergies, and resource opportunities. It does so in ways that mutually transform and enhance respective local methodological approaches, enabling collective impact on social-ecological resilience. In social innovation terms, a necessary key emphasis of IRN's work, particularly initially, is "Scaling Deep" (cultural and relational transformation) as a necessary pre-cursor to "Scaling Up" (impacting laws and policies) or "Scaling Out" (impacting numbers) (Riddell, & Lee Moore, 2015). This decision was made not only because of the widespread need for environmental education work based on decolonizing and reconciliation approaches, but also because of social innovation's primary roots in Western empiricism, human-social systems, and related constructions of citizenship—and consequently the decolonial imperative to avoid "moves to innocence" (Tuck & Yang, 2012, p.10) that decentre Indigenous Peoples and exacerbate their struggles. In this vein, Tuck and Yang have argued that articulating decolonization work primarily as metaphor "kills the very real possibility of decolonization" (2012, p.3). Our emphasis on "Scaling Deep"—or, attempting critical cultural transformation in ways that re-centre Indigenous metaphysics and relationality—is therefore intended to avoid "resettling Whiteness" (i.e., settler cultural and political dominance) (Tuck and Yang, 2012, p.3).

IRN's work critically intersects with research by Indigenous scholars (Alfred & Corntassel, 2005; Coulthard, 2014), both of which illuminate the increasingly insidious nature of colonization and the entangled relationship between the Canadian state's reconciliation agenda and neoliberalist modes of development. Also contextually significant are the colonizing structures of racism: Common to the Indigenous Peoples whose territories lie within each modern nation state represented at the Summit is a history of British colonial domination authorized through powerful racialized discourses of Anglo-Saxon exceptionalism (Edmonds, 2015; MacKinnon, 2017). While "Whiteness"—privileging White bodies and Western modernist views of reality—is a major part of colonialism's weaponry, it is not the foundational issue as far as the work of social-ecological resilience is concerned. Rather, we propose the fundamental issue regarding the collective continuance of all life forms is an onto-epistemological one, that is, the way in which individuals and institutions conceive the nature of reality and enact it (Williams, 2012). This is not to say that we do not highly value critiques of "Whiteness" (Arvin, Tuck & Morrill, 2013; Edmonds, 2015); these are essential to dismantling colonial structures.

We are mindful of the challenges related to navigating the terrain of de-colonization and reconciliation, particularly whilst reconciliation efforts remain

circumscribed by what Dene scholar Glen Coulthard refers to as the "Colonial Politics of Recognition" (Coulthard, 2014): the accommodation of Indigenous identity-related claims within the machinery of the settler nation state in ways which effectively reproduce colonial relations, including the production of neo-colonial subjectivities in Indigenous Peoples. Even the best-intentioned decolonization and reconciliation work risks re-producing the very forms of domination it seeks to subvert. Accordingly, we do not pretend to be immune to the possibility that colonizing elements may at times unconsciously find their way into the IRN's practice. Rather, we consider this paper to be more of a critical retrospective piece as we consider IRN's next steps in the ongoing struggle to create decolonial alternatives.

Our intention in this article, therefore, is to offer some early reflections on environmental education as activism through the lens of "Scaling Deep" and IRN's development methodology to date, as practice examples of decolonization and reconciliation. We do so within the context of the Summit. The Summit was not a neat and seamless activity; the findings and reflections presented here are not definitive. Rather, they are illuminative of the processual and pedagogical summit elements—i.e., *what* led to *what*—and are definitely a work in progress.

Standpoint: Self and Place

We preface this narrative by naming our own standpoints. Lewis Williams is the initiator and Founding Director of IRN, and key organizer of the Summit. She has a herstory of community-based education, intersectional decolonizing work and activism. Nick Claxton is an IRN Co-Director, and educator, committed to decolonizing pedagogies. Williams is a White, Indigenous, migrant woman who embodies both Indigenous (Ngāi Te Rangi tribe) and settler (Celtic and Gaelic[ii]) origins and over time has had to reconcile these respective epistemologies, psycho-spiritual histories, and respective dynamics of power and culture. Hers is a story of deepening relationality to country and kin (Williams, 2012) that narrates the entanglement and movement of epistemology, identity, and place. Williams' story provides possibilities of epistemological change over time (Kovach, 2009). Nick Claxton is Indigenous, from the W̱SÁNEĆ Nation. He was born and raised in his territory and, with this solid cultural grounding, is able to combine a traditional Western academic tradition with traditional W̱SÁNEĆ beliefs and teachings. Currently Claxton's scholarship and activism focus on the revival of W̱SÁNEĆ traditional ReefNet fishing methods.

While our respective lineages and positioning shape each of us, our interactions with others, and ultimately the ways in which we might engage in disruptive pedagogies of reconciliation (educative practices which disrupt Euro-western normative understandings of place and people), we suggest that the bedrock of experience is always place, and the ways in which place engages with our being

and subsequently shapes learning. Indigenous and non-Indigenous scholars (Battiste, Bell, Findlay, Findlay & Henderson, 2005; Watts, 2013) articulate this as "Thinking Place" and "Place-Thought" respectively—a distinctive physical location which recognizes the interconnectedness of thoughts and place (Marker, 2000). Place is also central to our own Celtic, Gaelic, Māori, and W̱SÁNEĆ lineages, and it includes the Māori concept of *Whare Wananga*—a traditional school of learning for the purpose of transmitting tribal lore which often narrated and engaged deeply transformative practices within the context of human and other-than-human kinship relations. The W̱SÁNEĆ concept of SKÁU ŁTE similarly expresses the inseparability of the land on the one hand, and learning, teaching, language, beliefs, ways of being, and laws on the other.

Tsawout Territory as *Whare Wananga*

Tsawout is one of five bands comprising the Saanich peoples (or in their SENĆOŦEN language, the W̱SÁNEĆ Nation) who, over thousands of years, have continuously occupied the Saanich Peninsula on Southern Vancouver Island and the surrounding Gulf Islands and San Juan Islands of the Salish Sea, in the region now known as Southwest British Columbia and Washington State. Relying on the lands and waters of their territory to sustain their language, culture, and traditions, the W̱SÁNEĆ are known as the "Salt Water People." After their sacred mountain ŁÁU,WEL,NEW̱, (The place of refuge) emerged following the great flood, they also became known as the "Emerging People" (Horne, 2012). Historically, the W̱SÁNEĆ comprised a single group, or knot, of extended families who shared the SENĆOŦEN language and a cultural order that revolved around their relations with all parts of their territory, including marine creatures, plants, terrestrial animals, spirit beings, and one another.

Tsawout means "Houses Raised Up," a name derived from the way its villages appeared to paddlers entering Saanichton Bay. Just as it is with Māori, the practice of naming places and locations as they would appear to people approaching by canoe is a perfect illustration of how fundamental the traditional marine territory is to the W̱SÁNEĆ world view and traditional way of life. The Cordova Spit (which in the SENĆOŦEN language is called TIX̱EN) is a sparsely vegetated spit which lies at the water's edge, about 2 kilometres from the main village of Tsawout. A place of physical, emotional, and spiritual sustenance, TIX̱EN is the provider of traditional foods and medicines. It is also the site of sacred burial grounds. A place for spiritual reflection and traditional teaching, TIX̱EN was our place of learning for our day-long gathering on the land, whilst the community gym and band headquarters in the main village provided the "Thinking Place" for most of the rest of the Summit.
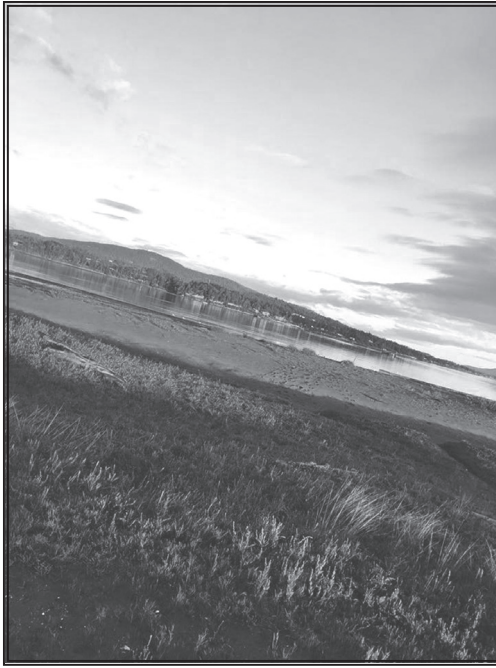
Figure 2. TIX̱EN̲ Spit, Saanich Peninsula

The resilience of the land and its peoples has persisted despite colonial imposition. Whilst the Douglas Treaty (1852) guaranteed Indigenous Peoples' rights to hunt over unoccupied lands and continue with traditional fishing, these developments resulted in the theft of much of the W̱SÁNEĆ people's traditional lands and the eventual banning of ReefNet fishing, the centre of their traditional social and spiritual economy. These economically-driven incursions endure. During the Summit, the Tsawout Nation were preparing a submission against the building of a major oil pipeline through their land, an initiative which is predicted to have many negative impacts on the well-being of the Tsawout territory and its people. It was this complex, rich, and difficult history, together with the resilience of the territory and its peoples, that formed the bedrock of our *Whare Wananga* during our time together at the Summit. By using the term *Whare Wananga*, we intend to emphasize the epistemological lacing within the Summit methodology of Māori and W̱SÁNEĆ thinking. In this instance, the *Whare Wananga*'s previously described relational and sacred practices of learning occurred in the "Thinking Place" of Tsawout territory. Our multi-layered account of place is also significant in understanding what often differentiates Indigenous perspectives of intercultural dialogue (such as those of the Summit) from dominant Euro-centric approaches. Indigenous perspectives ground often

abstract discussions of cultural power dynamics in the "distinctiveness of local stories that contain the deep and concrete aspects of reality" (Marker, 2000, p. 401). Given that we wished to avoid abstract discussions of colonialism and Indigenous resurgence and reconciliation, the framing of learning in an actual physical, sentient place that is very much alive, formed an important conceptual aspect of our methodology.

Theoretical Context, Concepts, and Pedagogical Approach

Building on Donald's (2009) concept of "Indigenous Métissage," a key goal of IRN's work is place-situated "ethical relationality" that simultaneously combines Indigenous philosophies, ethics, and ways of knowing with an effort to engage mutual understanding of relative positioning, perspectives, and knowledge systems as constituted by both Indigenous and colonial narratives of past and present.

The two concepts of decolonization and re-inhabitation which constitute Greenwood's "Critical Pedagogy of Place" (2003, 2010) are also central to IRN's work. Decolonization encompasses deconstructing and transforming dominant settler paradigms, such as the anthropocentric constructions of land and citizenship, in favour of relational and reciprocal constructions of people and land (Corntassel, 2012) (decolonization of the mind). It also embraces the recovery of Indigenous lands and sovereignty, and renewal of non-commoditized cultural patterns such as intergenerational relationships. Re-inhabitation involves "maintaining, restoring and creating ways of living that are more in tune with the ecological limits of a place" (2010, p.19). Our third key concept is reconciliation, which views Indigenous place-based education as a practice of social and ecological justice (Scully, 2012). Reconciliation requires deepened relationality between cultures along epistemological, cultural, and political axes. Collectively, these three concepts underscore the need for a radical re-orientation of awareness and place relationships, a position also taken by Canada's Truth and Reconciliation Commission (TRC, 2015).

Cultural remapping—the recovery of Indigenous cultural ecologies, knowledge systems, and ways of being in ways that significantly re-map dominant understandings of the cultural-ecology of place (Williams, Stuart & Reedy, 2015)— was key to our pedagogical approach. In this article, we focus on two primary forms: 1) The remapping of socio-historical narratives that involve the disruption of dominant settler colonial narratives of the ecology of culture and place through a re-surfacing and repositioning of Indigenous narratives of country, culture, and kin; and, 2) The remapping of ontology and epistemology in an embodied sense upon the human psyche through the dreamtime, ceremony, stories, and simply being one with country. We use the term "mapping" (Williams et al., 2015) to suggest the impression or representation of country and kinship relations on the human psyche and being. "Remapping" (Williams et al., 2015) refers to repeated patterning and re-engagement that inevitably leads to a deepened sense of

relationality between the human and more than human world. Essentially, we are rebuilding our relationship with the natural world.

Cultural remapping acknowledges the complex mixture of Indigenous guardianship of place and non-Indigenous connections to place (Sommerville, 2010); in other words, it recognizes the simultaneous multiple and contested realities which co-exist regarding connection to place (Donald, 2009). In turn, it endorses the need to draw on critical approaches to the reproduction of culture in place (Kraidy, 2002). We differentiate between processes of attachment and identification with place that can be achieved through signifying practices—repetitive practices and memories that form over time (De Certeau cited in Fredericks 2010)—on the part of migrant communities, and the depth of epistemological rootedness in and knowing of place (being of country) that is more often the case for Indigenous Peoples (Heinamaki, 2009; Royal, 2003).

Finally, a central axiom of IRNs work is the re-indigenization of all peoples to the earth as a living being (Ausubel, 2008). We aim to restore an understanding of the innate capacity of all peoples to deeply and reciprocally connect to the earth. This axiom draws on the shamanic onto-epistemological foundations of virtually all societies (Williams, 2012). We also draw on Okanagan scholar and summit speaker Jeannette Armstrong's (2015) work on the centrality of the concept of Indigeneity ("society-wide knowledge of the requirements of the places we live in") to our ecological futures. We argue that a grounded and authentic connection to place arises through "a learned way of interrelating with a specific place to achieve consistent health and consistent health system renewal" (Armstrong, 2015). This includes orientating to the stories, world views, and laws of Indigenous Peoples as the epistemological bedrock of place; and, it requires reconnecting with epistemologies of interconnectedness that lie in one's own cultural roots, whether one identifies as Indigenous or settler. Thus, we argue for the value of, and the pedagogical challenge related to, digging through identity politics to reach more fundamental issues of ontology (the nature of reality), epistemology (how we know reality), and axiology (the values and ethics which underpin our actions) (Wilson, 2001). This is especially vital in the face of rapidly declining social-ecological systems and widening inequities among differently positioned groups. We also maintain that it is crucial to hold contemporary forms of colonization and attendant dynamics of culture and power to account.

In the use of the term "re-indigenziation," we are not advocating for neo-liberalist forms of naturalization of settler peoples as becoming Indigenous to what is now known as Canada; a now common dynamic which Tuck and Yang (2012) name as one of several "settler move[s] to innocence." Such a move would result in further territorial dispossession of Indigenous Peoples. Neither are we advocating for a "return of the commons as a redistributive counter strategy to neoliberalism's new round of enclosures" (Coulthard, 2014, p.12). Rather, locating onto-epistemology and the ethics of relationality (axiology) as

the primary undercutting challenges of social-ecological resilience provides a crucial way forward and a form of guidance for those who no longer know what it is to be Indigenous to place. Specifically, it opens the way for reconnecting with place in authentic and grounded ways which have resonance with one's own cultural roots.

We are interested in building "epistemological" (Williams & Hall, 2014) and "relational solidarity" (Gaztambide-Fernandez, 2012) between Indigenous and non-Indigenous peoples. Building the latter, Gaztambide-Fernandez argues, requires the constant negotiation of boundaries in ways which recognize the complex and sometimes contradictory locations and histories of people. These ideas sit within the broader context of tightly-wound global conditions that constitute and displace—whether through external forms (e.g., forced migration) or internal forms (e.g., racialization)—colonial subjects, who nevertheless still occupy and settle stolen Indigenous land. In this regard, we also draw theoretically (although not exclusively) on Tuck and Yang's (2012) concept of "incommensurability," which suggests the collective work of decolonization is often an "uneasy, reserved, and unsettled matter" (2012, p. 3).

Overview of the Summit

The "Elders Voices' Summit" was framed by IRN's broader aims: 1) Restoring intergenerational knowledge transmission and relationships between people, and between people and nature; and 2) Integrating these perspectives within innovations intended to heal and restore fragmented human-ecological systems. In supporting these aims, the Summit primarily focussed on three of four intended objectives: 1) Building relationships among network members; 2) Deepening participants' understanding of diverse perspectives and agency imperatives; and 3) Refining key themes to ensure collaborator relevance. Due to time constraints, we were unable to give much focus to a fourth intended summit objective, the development of ethical framing and protocol to guide the ongoing work of IRN. We will prioritize the fourth objective in near-future IRN development activities.

The Summit's preparation was supported by a local organizing committee and IRN's International Advisory Group. Each group consisted of university, not-for-profit, and government partners. In the year prior to the Summit, our local organizing committee worked closely with W̱SÁNEĆ Elders and Tsawout representatives to support the inclusion of Tsawout community members and to ensure Tsawout protocol was followed for the Summit. The spiritual foundation provided through the land and the W̱SÁNEĆ Elders was essential to enabling such a diverse group of people to assemble and create a space not only of trust, but also of emotional and analytical depth. This notion of holding relational space was also (implicitly) extended to the land, waterways, and kinship relations.

Cultural remapping was an integral aspect of the Summit's programming,

and was interwoven throughout the Summit's four days as we progressed our way through four themes: 1) Preparing the Ground; 2) Indigenous Knowledge and Resilience; 3) Holistic Approaches to Learning; and 4) Innovations of Indigenous and Inter-peoples' Resilience (the strengths and capacities that can develop as a result of different cultural groups engaging in the collective work of social-ecological resilience). While some days tended to emphasize cultural remapping in narrative (for example, Indigenous knowledge and resilience) and others prioritized epistemological terms (for example, holistic, land-based learning), both elements were present on each day.

Methods

We did not set out to directly research the effectiveness of pedagogical approaches to intergenerational resilience. Instead, the idea for this paper emerged as a result of being "participant observers" (Davis and Craven, 2016) of the Summit's development and implementation. This was particularly the case for Williams as she worked with co-author Claxton and the Tsawout community to develop the Summit program. Prior to the commencement of the Summit, the University Committee for Ethics in Human Research (UCEHR) of the University of Saskatchewan (where Williams is an Associate Adjunct Professor) was sent an overview of the project in order to ascertain the need for ethics approval. Whilst ethics approval was required and obtained for focus groups on youth resilience at the Summit (not drawn on here), we were not required to obtain ethics approval for the remainder of the Summit because it was deemed to be occurring in a public space. On the advice of the UCEHR, however, we asked plenary and keynote participants to sign a two-stage consent form for video recordings. We also undertook an evaluation of the Summit through participant questionnaires issued at the time of the Summit. As the Summit evaluation was a quality assurance project and participants contributed to it on the understanding that their comments would be included in a publicly available summit evaluation report (see http://www.internationalresiliencenetwork.com), we were not required to obtain ethics approval for this component. The Facebook posts arising from the Summit were spontaneous occurrences that we had not previously considered might serve as possible resources for evaluation. In the two cases where we have drawn from these, the Summit participants have granted permission.

In summary, the data drawn upon for this article are from the Summit programming notes, summit evaluations (20 % response rate), Facebook posts by participants, and videos taken during the Summit. Findings were coded into key thematic areas, some of which can be found in the Summit Evaluation Report (Williams and Turner, 2015). The development of these themes was guided both by the pedagogical objectives underpinning the Summit and multiple readings of the data.

Participant quotes, presented here anonymously, are verbatim. In order to ensure that participants were satisfied with the way in which the information they provided is represented in this paper, each person was sent a copy of their quotation together with a copy of this article, to enable them to review the context of their quotation if they wished.

Findings: Disruptive Pedagogies of Decolonization and Reconciliation

"Re-charting the space of what constitutes intellectual work was a fine intervention." (Non-Indigenous participant, Canada)

The above quote is by a summit participant from an academic background. It alludes to the overall nature of the Summit's holistic, pedagogical approach—one which worked to re-constitute the typical Euro-western learning space. The Summit incorporated academic components and was attended by university staff and students. Findings are presented below in sequential order, according to the Summit program. Due to space limitations, not all activities are covered; rather, some of the most salient examples of IRN's "DEEP" reconciliation work are provided. We believe these instances demonstrate impactful aspects of the Summit's pedagogical approaches and its associated tension points.

Preparing the Ground (Day One)

Participants frequently commented that the Summit had a profound impact on them, but they struggled to articulate why. To illuminate their thinking, they spoke about the deeply transformative nature of the "Thinking Place" (Battistte, et al, 2005; Watts, 2013) and related summit events. We have briefly alluded to the powers and enormous depth of relationality inherent in Tsawout territory and the W̱SÁNEĆ people despite their complex and difficult history. Along with the powerful spiritual foundation provided by the Elders through prayer and ceremony, the Summit's occurrence on this powerful land and among the W̱SÁNEĆ people cultivated a sense of the sacred and a respectful intent for engagement. One Gaelic participant from Scotland, spoke to this specifically. He felt that "the related emotional and analytical depths which we explored and shared in our sessions was supported and held by the use of ceremony."

This grounded space was intended to nurture diversity. It facilitated the recognition of different identities and perspectives, and it allowed for the common goal of shining a light on the successful Indigenous resurgence initiatives and the collective processes of re-Indigenization that are critical to all living beings. Following the Summit, participants commonly referenced the significance of the multi-dimensional nature of the pedagogy. One non-Indigenous woman of Gaelic ancestry from Aotearoa articulated this in the following terms:

Gathering [together was] immensely powerful....The connections I made and strengthened there will support and inform my continuing research….In such a safe and co-created place, we were able to access a depth of emotion that surely made shifts within all of those who resonated with the ideas, imagery, sounds, and stories we shared.

These approaches, combined with the theoretical articulations of collective decolonization and Indigenous resurgence work with Indigenous and non-Indigenous Peoples, produced some significant realizations for participants. As one Scottish participant who identifies as coming from a Western culture noted:

The most poignant moment for me was Dr. Jeannette Armstrong's comment: "We are out of our Indigenous minds." This made so much sense to me and solidified what I had been feeling for a long time.

Our first day focussed on remapping the relational space. We relied on cultural excavation activities to illuminate Indigenous ecologies and histories, colonial traumas, and resilience. These activities acted as a kind of "ground clearing" that was conducive to deep listening and relationship-building. They consisted of the "Colonial Reality Tour" (CRT), "Elders' Time on the Land" (revealing Indigenous ecologies), "Youth Dialogue Circles" (on meanings of resilience), and our opening event, "The Whole of Human Relations" (arts-based contributions which included representations of Indian Residential schools Survivors).

Colonial Reality Tour: Led by a Songhees Nation member, the CRT took summit participants on a tour of culturally significant sites for the Lekwungen Peoples in the Greater Victoria area. The Lekwungen and the W̱SÁNEĆ Peoples are part of the Straits Salish Peoples, and they speak different dialects of the same Straits Salish language. This tour introduced participants to sacred sites, the harsh realities and impacts of colonization, and the ways in which the First Peoples are reclaiming the past, present, and future. Open to both Indigenous and non-Indigenous participants, the CRT and other ground-clearing activities affirmed Indigenous realities and strengthened the space for intercultural and intergenerational dialogues on the following days. Speaking of her experience, a non-Indigenous university professor from Canada remarked on the significance of having the opportunity to walk the Lekwungen lands:

These practice-based sessions led by Aboriginal leaders gave a concrete experience of place from a First Nations perspective through stories told on sites of cultural importance. Being there and hearing and seeing these has far more impact than reading a book or hearing this on a panel.

A young Māori participant whose lands were confiscated in 1864 by the colonial government of New Zealand spoke to the direct impacts on her psyche and spirit in witnessing the stories of the Lekwungen territory and Peoples:

Today was absolutely soul fulfilling. We walked on native lands, we heard the truth in their stories. I felt the mamae (pain), the trauma, the strength and the wairua (spirit). Nothing that was done to our native whānau (family) here on these lands was justified; it was and IS abuse.

Cultural remapping is evident above in both narrative and epistemological terms. Walking the land provided an embodied experience for participants: Experience of place was re-constructed through Lekwungen stories of displacement and resurgence. The first participant's reflection on the CRT above, although holistic and multi-sensory in orientation, speaks in particular to the power of narrative "in place." This is in contrast to typical academic learning forums which often tend to occur in "sterile" Euro-Western-style environments that are divorced from everyday spiritual, social, and physical realities. The second quotation speaks strongly to the visceral reality of being on land and an embodied form of re-orientation and remapping from the direct onto-epistemological experience of the sentience of place.

Indigenous Knowledge and Resilience – Intergenerational Dialogue (Day Two)

The Intergenerational Resilience panel was preceded by two plenary sessions: "The Radical Human Ecology of Resilience" and "Unpacking the Challenges – Stirring the Potential." The first session discussed Indigenous resurgence and reconciliation as a counter to neoliberalist forms of economic fundamentalism and disconnection from place. The second session provided a critique of dominant sustainability discourse and the importance of cultivating Indigenous ways of knowing and being both in Canada and globally.

Photo Credit Jason Gullie

Figure 3. Panel on Intergenerational Resilience

The panel on intergenerational resilience between Elders and youth continued to deepen relationships. Comprising nine Indigenous and non-Indigenous Elders and youth from Canada, Aotearoa, and Scotland who shared their experiences of intergenerational resilience, it constituted a powerful and mutual form of cultural remapping across generations. Whilst the theme of human-to-human intergenerational resilience remained foremost, the transmission of knowledge between species was an important secondary theme. Loss of these practices as well as their re-generation in the face of colonization was described by Indigenous Elders and youth. For example:

> We are like a library…think of the knowledge you all carry….We (the Haida Nation) were 30,000 before diseases came…by 1936 we were less than 600 people. That's like having a massive fire in your library and losing all of about 600 books…periodicals, journals, books of knowledge, ideas. Then you try to put it all back together again. Every one of you has a responsibility to donate your own book of knowledge. (Indigenous Elder, Canada)

Speaking of her family's efforts to nurture resilience, one young Indigenous woman from Canada said:

> Instead of holding onto anger…they held onto love….The art of connection….The honouring of all our relations, not just with the people, but with plant nations and the water nations, and that art of connection is resilience….Resilience is love.

This panel enabled one Gaelic participant to make sense of his own national context in Scotland, a country just beginning to recognize its lost Indigeneity:

> Hearing Iain MacKinnon's contribution as part of the discussion—his understanding of the 1,000 year old internal colonization process that's been happening in Europe and Scotland…and the motivations for 18th-century onwards European Emigration/empire building/colonization was hugely helpful.

Other generative practices as part of this panel included a young Māori man who used poetry in performance to contextualize intergenerational resilience within the broader theme of the importance of confronting the racism and poverty affecting many Māori. In the same panel, a woman from Ethiopia described practices of intergenerational resilience, such as the continuation and adaptation of cultural practices, as a migrant to Aotearoa. The exchange of stories and experiences enabled a global and cultural remapping of neocolonialism's various expressions.

Holistic Approaches to Learning (Day Three)

Some of the most poignant midwifing, which guided the manifestation of intended summit processes and outcomes, occurred on TIXEN Spit. Well before dawn, Tsawout community leaders, youth, and other summit participants

gathered at TIX̱EN to dig a traditional pit cook (earth oven). Once the pit cook was prepared and while the fire continued to heat the stones, some of this group travelled to Tsawout's sacred mountain (PKOLS) to collect *salal*, a plant used in cooking. Around 9:00 am, the rest of the Summit attendees arrived and, for the next six hours or so, the Summit unfolded on the sands of TIX̱EN. As the lunch cooked, Tsawout tradition carriers shared aspects of traditional knowledge from plant-lore to origin-stories. Each story stressed a message and a meaning to guide good conduct. Summit attendees frequently expressed the value of having the opportunity to be together informally on the land. Stressing how this enabled a "deepening of relationships" on many levels, one Indigenous participant from Canada said:

> Preparing the pit cook [was impactful]. We got to the beach in the early morning with a group of youth and spent time working together on the land. This type of low-key activity promotes comfortable and natural conversations that can produce amazing discussions and bonding between the people and the land.

Many participants noted that these teachings, together with the opportunity to experience the sentience and soul of place, were a kind of "medicine." For example, one young Indigenous attendee from Aotearoa noted:

> I want to express my endless gratitude to the Tsawout People First Nations People. I felt the synergies of their land and water flow through me.

This day proved particularly powerful for enabling the organic development of new relationships between both people and land and people. Its timing was also critical for interspersing discursive exchange (which can be very cerebral) with more embodied forms such as being with nature and the more immediate reality of the expansive Indigenous Life-World.

Innovations of Indigenous and Inter-peoples' Resilience (Day Four)

In this panel, Indigenous and migrant women from Canada and Aotearoa spoke about their experience with the Women, Migration and Well-being Project (WMWP). Held between 2011 and 2013, the WMWP brought Indigenous and racialized immigrant women (some of them Indigenous to their homelands and traditional knowledge carriers) together to draw out common understandings of well-being and land. The objective of the WMWP was to reframe anthropocentric and Western-orientated mental health programming within holistic approaches that are conducive to social-ecological resilience (Williams & Hall, 2014).

The feedback from summit participants indicates this was an impactful panel for many, with some remarking on its powerfulness in terms of opening up a critical conversation, whilst others indicated they found it unsettling. The panel highlighted the potential in efforts to build relational and epistemological solidarities (Gaztambide-Fernandez, 2012; Williams & Hall, 2014) across

cultural groups while also illuminating the tensions inherent in such a project. It also launched discussions about topics such as disruptive pedagogical practices in place-based learning contexts. Migrant panelists emphasized the displacement and marginalization of some immigrants, and the challenges of extractive, economically-driven immigration policies and dominant culture. In speaking about the experience of continually navigating the culturally "dominant space" of colonial society, one immigrant participant from Aotearoa noted the implicit expectation that their cultural norms would take a "back seat" to those of the dominant culture: "We are always navigating the dominant space…we get the message that we have to put our cultures, languages, our Indigeneity away." The same speaker also stressed the lack of consultation with Indigenous Peoples over migration policies as well as the negative images of Indigenous Peoples portrayed by media.

One Māori participant from Aotearoa noted her people's very negative experiences with (colonizing) settlers and, accordingly, a tendency for some Māori to view all migrants "with suspicion." Emphasizing the importance of continued efforts to re-assert Māori self-determination in ways that demonstrate compassion towards immigrants and, in particular, those displaced by forms of neocolonialism, she said:

> [Our] treaty is still not ratified in parliament…yet the expectation is that we should be welcoming to newcomers…we haven't learned to do that because we don't know what that means….if it is about women with children, mothers, family leaders coming together to prevent dysfunction….we can do that.

While to date many Māori are necessarily focused on decolonization and increasing the resilience of their own community members, some urban-based Māori who are more exposed to immigrant groups are aware of some of the parallels between members of their *iwi* (tribe) and working class, racialized immigrants. These resemblances include economic and cultural displacement.

Some participants found the session thought provoking and helpful, both with reference to the clearances and contemporary migration policy. For example, one young Gaelic participant from Scotland commented:

> In Scotland many of us are searching for an identity and the scars of the highland clearances are still unresolved after 200 years….[Hearing] the difficulties that Māori people face in understanding and engaging with new waves of migration to Aotearoa was…very helpful in trying to understand the socio-cultural tension in the Highlands and the Islands…. like Māori, people of Gael lineage face large-scale migration into communities.

Some summit evaluation feedback indicated unease with this panel. It suggested that some participants saw patterns of colonialism running through the panel's design and delivery. It may be that our pedagogical approach did not sufficiently outline the ways in which Indigenous and racialized immigrant women

are differently anchored in the broader political ecology (Williams, 2017). In this way we risked reproducing re-colonizing dynamics.

Conclusion

Imagining new ways of being together as we attempt to navigate these troubled times is both an individual and a collective endeavour. It involves acts of decolonization and reconciliation on many levels. This will inevitably mean different things to different peoples at different times. For Māori, the *waka* (canoe) is simultaneously a pragmatic and, symbolically-speaking, a spiritual vehicle; these are attributes we argue are central to and complementary within the nature of this work. In the W̱SÁNEĆ way, re-imagining modes of togetherness is about re-establishing and revitalizing those traditional life-ways of SḴÁU ȽTE and bringing them forward so that everyone can understand what it is like to live in ways that are deeply connected to the environment.

The Summit and IRN have shown promise in fostering the transmission of Indigenous knowledge and practices that help Indigenous Peoples and non-Indigenous Peoples to reconnect to the land in powerful and meaningful ways. The "learning place" of Tsawout traditional territory enabled a pedagogical forum that was conducive to cultural transformation, or, "Scaling Deep." It produced some considerable shifts in the "hearts and minds" of people (Riddell & Lee-Moore, 2015, p.12). Cultural remapping was important for informing activities such as remapping dominant cultural-power relations, as was evidenced in "Clearing the Ground." It also proved valuable in facilitating the weaving back and forth between narrative and embodied ways of being. It enabled meaningful community exchange and accompanying spiritual, emotional, and analytical depth between participants.

Indigenous attendees offered positive feedback about their experience; observing how the Summit had strengthened Indigenous resilience through heightening non-Indigenous participants' awareness of Indigenous beliefs and cultures. Echoing the thoughts of other Indigenous attendees, one Indigenous participant noted how it increased momentum for change through the coming together of many cultures in ways that "created a sacred space to be very open about spirit and identify the key healing aspects of decolonization."

There were at least two key takeaways for some of the non-Indigenous participants. The first was a realization of how much effort was necessary in order to catch up with the thinking and work of Indigenous Peoples on intergenerational resilience. The second was the need for further discussion on their own part. One participant articulated this second finding as follows: [we need] "further discussion for those of us without much connection to our Indigenous histories, how we can further support this movement and work."

Practices intended to cultivate social-ecological resilience in an era of reconciliation that has yet to move beyond "colonial politics of recognition"

(Coulthard, 2014) require vigilance in retaining a critical perspective and continuing to take great care in how we hold key paradoxes inherent in this work. Locating this project in the resurgence of Indigenous communities—in ways that enable all deep learning opportunities that are both about localized Indigenous practices and authentic connection to place—has the potential to lead to sustained and "DEEP" (epistemological, relational, and material) levels of intergenerational resilience and reconciliation. A critical aspect of ensuring the success of this work will be will be engaging with settler-migrant peoples and organizations to gain deeper insight and understanding of their cultural-power positionings within colonial structures. These will be important considerations for IRN as we take steps to develop IRN's ethical framing and protocol in support of IRN's long-term objective of a making a collective impact on social-ecological resilience.

Notes

[i] Greenwood's previous surname was Gruenewald, as in his 2003 article.

[ii] Linguistically, "Celtic" refers to an Indo-European language family made up of two branches: the "Q" Celtic of Scottish Gaelic, Irish Gaelic, and Manx Gaelic; and the "P" Celtic of Welsh, Cornish and Breton. Historically, all of the peoples who have spoken these languages have endured broadly speaking colonial processes to the extent, for instance, that there are now no native speakers of Manx and Cornish. The "Q" Celtic language family can be thought of as the languages of the Gaels. Celtic has also come to mean a broader sense of identity, identification and affinity with these minority groups, expressed, for instance, through the diversity of European and global artists and audience members attending the month long traditional music festival "Celtic Connections" held in Glasgow in Scotland each January. In direct reference to the Summit participants from Scotland, Scots peoples today adopt a variety of positions in relation to colonial processes as reflected in the various terms used and perspectives articulated in connection to the quotations in this article. For further information, see, for example, MacAulay (1992) and Durcacz (1983).

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Balancing the Warrior and the Empathic Activist: The Role of the Transgressive Researcher in Environmental Education

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Abstract

This paper explores the complex relationship between environmental education and researcher activism from the perspective of transgressive learning. With increasing interest within academia for more radical learning-based transformations for confronting sustainability challenges, come calls for more instrumental warrior stances in methodologies and research fields so as to more aggressively change ingrained unsustainable behaviour at the societal level. At the same time, in an increasingly polarized and unstable world, there is also a desire for more empathic learning approaches so as to build critical thinking and empowerment at the grassroots level through emancipatory learning. Based on case study research of a Colombian network of sustainability initiatives, this paper argues that key capacities of reflection, empathy, and courage are imperative in order for the transgressive researcher to address deep-seated socio-ecological challenges.

Résumé

Nous explorons le rapport complexe entre l'éducation à l'environnement et l'activisme scientifique dans une optique d'apprentissage transgressif. À l'heure où les milieux universitaires s'intéressent de plus en plus au développement durable et au besoin de transformations radicales reposant sur l'apprentissage, on s'attend à voir des prises de position plus *militantes dans les secteurs de la recherche et de la méthodologie, pour combattre avec plus d'acharnement les habitudes sociales qui, bien que profondément ancrées, vont à l'encontre d'une vision durable. Par ailleurs, malgré l'instabilité et la polarisation croissantes, on remarque* un élan pour les approches plutôt axées sur *l'empathie et développant l'esprit critique et l'autonomisation citoyenne par des expériences d'apprentissage émancipatrices. Les auteurs s'appuient sur des études de cas issus d'un réseau colombien d'initiatives de développement durable pour faire valoir comment le chercheur désirant transgresser le statu quo et s'atteler aux problèmes socioécologiques profonds doit impérativement savoir faire preuve de réflexion, d'empathie et de courage.*

Keywords: Transgressive learning, Environmental Education, Colombia, Activism

An introduction to learning and the status quo of sustainability

The status quo is nowhere more evident than in current sustainability debates. In times of global systemic dysfunction and impending ecological collapse, real change appears elusive. Quick fix technological innovations grab the headlines, while calls for fundamental changes to values and habits are met with institutional feet-dragging. Yet the fabled *Silent Spring* of Rachel Carson (1962) seems just around the corner. Every day, in a country such as Colombia, we hear about new species dying out, tracts of native forest and cultural sites ravaged by mega-mining and Indigenous rights violated (Calderón Sánchez, 2008). Perhaps more worrying than the silencing of Indigenous peoples and birds is the creeping realization that climate change—exacerbated by certain lifestyles—is making our planet increasingly uninhabitable not just for certain wildlife, but also for humanity. The further we consume our way into the Anthropocene—the epochal age of human induced climate change (Steffen et al., 2011)—the greater the danger that we burn the ecological bridges which connect us to the web of life.

Not long after Carson's *Silent Spring* roiled readerships worldwide, the field of Environmental Education (EE) emerged as a response to environmental concerns such as the impact of chemical pesticides. Initially based on raising awareness and understanding about environmental values and behaviour (mainly in Northern discourse), the field has developed to incorporate political, social, cultural, economic, and gender-based considerations (Korteweg & Russell, 2012; Martusewicz, 2015; Peters & Wals, 2016; Sauvé, 2005; Wals, Geerling-Eijff, Hubeek, van der Kroon, & Vader, 2008; Wals, 2011). Although EE in higher education is steadily gaining traction in countries in the global South such as Colombia (Barraza, Duque-Aristiza, & Rebolledo, 2003), it is the political branches of EE which have found especially fertile ground in environmental thinking and action. From the call for "soil, not oil" by Indian environmental activist Vandava Shiva in her book of the same name (2015), to the demands of the Indigenous Zapatistas in southern Mexico for a "world where all worlds fit" (Shenker, 2012, p. 432), grassroots social movements that are deeply committed to environmental concerns are flourishing.

Alongside advancements in grassroots environmental activism are interesting developments in state level discourses in terms of group world views on the environment. Latin America is what Escobar (2010) describes as "the only region in the world where some counter hegemonic processes of importance might be taking place at the level of the State at present" (Escobar, 2010, p. 1). In a bold institutional move, Ecuador amended its constitution in 2008 to declare the rights of nature. The following year, Bolivia declared itself a plurinational state, thus recognizing the coexistence of various nationalities within its borders (Gudynas, 2011). Both constitutional amendments are affronts to modern paradigms of development, and are inspired by the emerging concept of *buen vivir* (roughly translated as *the good life*), which represents more

biocentric, communal and relational means of understanding and being in the world (Chaves, Macintyre, Verschoor, & Wals, 2017a).

What is becoming increasingly clear, however, is that providing information, raising awareness, or even institutionalizing nature rights is not enough to facilitate any major changes in human behaviour: There is a recognized gap between the stated desires/values of people and their everyday behaviour (Glasser, 2007). This can be seen in consumers' daily actions; for example, they may "green the world" through recycling, but they nevertheless fail to question some of their more fundamental (over-)consumptive habits. This gap is also evident at the state level, where despite the Ecuadorian constitution declaring the rights of nature, the government's recent approval of a mining law and the proposal of a water law arguably contradict the principles of *buen vivir* by placing economic development over the rights of nature (Walsh, 2010).

Closing the gap between value and action is an important aspect of EE, and a fundamental consideration is the *types* of learning that are most effective in addressing current sustainability challenges. On one side are instrumental approaches based on changing human behaviour through, for example, education and government regulation. In a context of planetary upheaval, and societies' resistance to change, it is argued that we must use all available tools and means to change human behaviour before it is too late. On the other side are more emancipatory approaches which argue that societal members need to understand the system they are part of in order to be able to change it. Instead of the government or educational system taking the role of moving society towards predestined directions, the goal should be for educators to develop capacities for critical engagement with people, encouraging individuals to more actively reflect on actions and assumptions which maintain the status quo. This would facilitate personal and collective change (human development) within one's own socio-ecological context.

In environmental education, both approaches are used and can be combined, depending on what type of change is needed and desired (Wals et al., 2008). Yet as learning specialist Arjen Wals notes, "deeper and more fundamental societal change will be more sustainable than quick fixes, short-term thinking and a focus on behavior without consideration of the deeper issues and values" (Peters & Wals, 2016, p. 183). Although instrumental approaches may well be needed to guide societies in a predefined direction, education promoting emancipatory learning has the potential to lead to a critical citizenry, one which questions basic assumptions. This in turn may lead to a greater planetary consciousness.

Environmental activism and the "transgressive" researcher

Addressing the deeper and more fundamental societal change mentioned above is the focus of this paper, in which we argue the researcher plays an important

role as an environmental activist. A typical definition of environmental activism is "organized participation in environmental issues, comprising an example of environmentally friendly behavior rooted in the political realm" (Marquart-Pyatt, 2012, p. 684). Despite the friendly wording of this definition, activism is a loaded term; depending on our assumptions and affiliations—influenced by the media, grassroots organizations, and academia—environmental activism can spark enthusiasm or repulsion. Yet, while environmental activism has traditionally been associated with engagements at the international level—think Greenpeace activists boarding a whaling ship—there is an increasing recognition within academic and activist circles that environmental activism has a much broader political character (Wapner, 1995). Such a spectrum of environmental activism encompasses an extreme range of actions: from dismantling the industrial economy through concerted attacks on industrial infrastructure (Jensen, McBay, & Keith, 2011), to community garden initiatives in the Bronx (Krasny & Tidball, 2012), and even to the simple act of defiance against consumerism by living a low impact lifestyle (Chaves, Macintyre, Riano, Calero, & Wals 2015).

Based on the recognition that environmental activism is inherently value-based, we will explore the tensions involved in competing values through the two emotive approaches of the *warrior* and *empathic* activist. Employing the term *warrior* evokes different feelings in people depending on cultural context. Some Indigenous understandings, for example, highlight the deeply spiritual nature of the term. Alfred and Lowe note the English-Kanien'kehaka translation of the word warrior—*rotiskenhrakete*—literally means "carrying the burden of peace" of the Indigenous Kanien'kehá:ka/ Mohawk peoples of North America (2005, p. 5). This definition starkly contrasts those that emphasize the warrior's qualities of power and strength that are apparent in Western dominant activism. The rubber dingy filled with black-clothed activists racing to cut off a whaling ship is a good example of the against-the-odds "fight"— raising short-term public awareness of an environmental issue. We can understand the Western approach to activism, replete with a touch of hubris, as taking the side of more instrumental approaches to learning as it seeks to change behaviour through predetermined ideas of what is right or wrong. It is in this Western sense that we will use the term warrior in this paper.

By contrast is the *empathic* approach to activism, characterized by qualities of care, nurture and empathy, and perhaps tinged with a shade of naivety. A good example of empathic activism can be found in the Salt March of 1961, led by Mohandas Gandhi, whose non-violent, symbolic opposition to the British crown galvanized India's resistance movement. Such activism has the potential to change perceptions in societies about what is possible or not (in this case, defying the British Crown), whereby the ability for the masses to connect with a cause can lead to a more emancipatory approach to activism and learning.

It is important to note that both warrior and empathic approaches are useful and valid in particular contexts: after generating international awareness to

India's fight for independence, Gandhi then had to sit down at the negotiation table with instrumental demands for the British. The question we want to address in this paper is: *how,* in the context of sustainability challenges, do these approaches generate tensions and contradictions in the researcher and subject, especially in terms of addressing sensitive topics such Indigenous rights, sustainable lifestyles and, ultimately, world views and ontologies?

The rest of the paper is structured around five characteristics of the emerging concept of transgressive learning, which we will use as a means of addressing the question that closed the previous paragraph. This will be explored via case-based studies and experiences from four years of research into a Colombian network of sustainable initiatives called CASA (The Council of Sustainable Settlements of Latin America). The respective characteristics representing each section are as follows:

1. Ethics of transgressive learning is based on a philosophy of caring which balances the *warrior* stance of activism with the *empathic* pose of vulnerability.
2. Transgressive learning, based on disrupting structural hegemonies of power, is a form of transformative learning.
3. Transgressive learning addresses *wicked* sustainability issues characterized by their complex, fluid, and transient nature.
4. Transgressive learning as a methodology is normative and characterized by "ecologies of knowledge."
5. With their emphasis on participatory, reflective and narrative approaches, transgressive methods are performative by nature.

Within each section, we will describe the characteristic, place it within current research in Colombia and discuss the role of reflection, empathy, and courage, in what we describe as essential aspects of the transgressive researcher. We will conclude this paper with some final remarks on what a not-so-silent spring may look like for all of us.

Characteristic 1 - Ethics of transgressive learning are based on a philosophy of caring which balances the warrior stance of activism with the empathic pose of vulnerability.

Change seems to be the talk of the town. After millions of years of incremental geological changes—with glaciers emerging and receding, and continents meandering across the seas—the human footprint is dramatically affecting the rate of change on Planet Earth. The sheer extent of this footprint is not only accelerating human progress, but also hastening planetary changes, ushering in what some are labelling the new geological epoch of the Anthropocene (Steffen et al., 2011). The advent of the so-called Anthropocene raises profound ethical

questions about humanity's relationship to the natural world, and how we should move into the future (Hourdequin, 2013).

This is especially true when taking an advocacy approach to, and participatory stance on, research—when trying to give research subjects a political voice and facilitate and promote positive changes in their lives. Researchers must ask themselves, do we do this through an empathic pose? In other words, do we take the form of a reflexive and sensitive practitioner who is *empathically* versed in engaged practice - an approach that is able to facilitate participative parity within social learning spaces that are often aimed towards the sensitive areas of justice and emancipation (McGarry, 2014)? Or, do we instead risk tension and conflict by questioning and challenging what we see around us? In other words, do we take a *warrior* stance following the dissonance and seek opportunities for personal transformation and even collective transgressive learning (Chaves et al., 2016)?

Before adopting an activist role, one must consider the fundamental ethical responsibility of the researcher to "do-no-harm." For how can we break hegemonies of power without causing tension and conflict between and within the people and communities we study? For example, when searching for an interesting topic of research, the second author of this paper clearly remembers the suggestion of her supervisor: "Go where the conflict is!" And indeed, this present research has found that conflict and dissonance are fruitful avenues for exploring disruptive pathways that lead to transformative and transgressive learning-based change. In the words of co-researcher Jorge Calero, "transformative fires" maintain the activities of the community dynamic (Chaves et al., 2015, p. 29). Yet how can we square such a *warrior* attitude with a planetary need for cultural and ecological reconciliation?

Addressing this dilemma, McGarry et al. (2016) have put forward the idea of expanding moral action to move beyond "do-no-harm" and towards a practice of care. Through positioning the researcher as a "reflexive justice practitioner" (Kulundu, 2012), and an "empathetic apprentice" (McGarry, 2014), an ethical framework based on the practice of care situates moral action and ethics as an ongoing dynamic relationship between the researcher and actors—both human and non-human. In practice, this ongoing relationship demands substantial reflection by the transgressive researcher. A fundamental (though disconcerting) consideration is whether the researcher is addressing the problem, or is part of the problem itself. Paraphrasing David Orr, the people with the biggest ecological footprints are not the ones who received no formal education and are living in poverty but are the ones with undergraduate and graduate degrees (Stone & Barlow, 2005). As educated researchers, we have both a comparatively high awareness about sustainable development and a highly unsustainable lifestyle that is at odds with intergenerational global, social, and environmental justice.

As a means of addressing this ethical paradox, the authors of this paper lived among the members of the ecovillage Atlántida, located in southern Colombia (see

Chaves et al., 2015), joining them in a life characterized by voluntary simplicity. In a small, 12-square meter house with a dry toilet, situated in a stunning rural setting and embedded in a community fabric of chores and celebrations, we tried to live a form of *buen vivir*—a life connected to the natural world—leaving as small a footprint as possible. Despite temperamental electricity, mediocre internet, and infuriating outbreaks of lice, we managed to create a life in spite of community turmoil. But consistent with the wicked nature of sustainability challenges, our situation changed as new factors emerged, thus rendering this life untenable for us. These lived and embodied experiences, however, proved invaluable for highlighting the importance of having the courage to step off the beaten path, confront other ways of living and being, and put into practice being a critical, reflexive and engaged transgressive researcher.

Characteristic 2 - Transgressive learning, based on disrupting structural hegemonies of power, is a form of transformative learning.

At the conceptual level, the surging awareness of the damage humans are doing to our ecological home, and the need to do something about it, has led to increasing discourses of transition (Escobar, 2015). A popular example of a collective transition discourse is that of transition culture, based on the empowerment of grassroots communities to address peak oil and energy use (Haxeltine & Seyfang, 2009; Hopkins, 2008). In research policy, this has been framed as socio-technical transitions (Geels, 2010) which notes that sustainability is difficult to achieve because of lock-in mechanisms that maintain poverty and social injustices; it posits that radical sustainability innovations instead occur in niches. At the individual level, there is also an increasingly strong focus on personal growth, empowerment and self-help literature, which from a learning perspective, is encapsulated by the theory of transformative learning. With a frequent focus on cognitive and personal change, this theory promotes the importance of transformations in beliefs, values and points of reference (Mezirow, 1997).

Building on the numerous "T" terms of "Transition," "Transformation" and "Transgression," is the research project titled "Transgressive Social Learning for Social-Ecological Sustainability in Times of Change" (referred to as the T-Learning project). Funded by the International Social Science Council, this international multi-case study project aims to investigate the "emergence and qualities of transformative, transgressive learning processes and their role and contribution to sustainability transformations at the food-water-energy-climate-social justice nexus" (Lotz-Sisitka et al., 2016, p. 53). This project is based on the recognition of the important roles of education and learning in leading human development and societal transformations (Engeström & Sannino, 2010); it is also rooted in a belief in the importance of more radical forms of learning-centred transformation (Wals, 2007), which, as the Intergovernmental Panel on Climate Change (IPCC) (2014) reports, is strongly needed for climate change adaptation.

Characterized as a form of transformative learning that addresses structural

forms of power, transgressive learning is a "concept in construction" based on exploring the *types* of radical learning that have the potential to disrupt ingrained norms of unsustainability (Lotz-Sisitka et al., 2016). As one of nine case studies from around the world, the aim of the Colombian case study is to explore the stream of transgressive learning characterized by new social movements, post-colonial and decolonization theory. It builds on the authors' investigation into the sustainability network CASA Colombia (CASA, 2016), an intercultural organization made up of ecovillages, Hare Krishna devotees, Indigenous communities, and urban professionals. CASA is actively working to create intercultural learning spaces, where shared sustainability challenges such as mega-mining, food sovereignty, and territorial defense are addressed.

An inherent tension in this research has been between the "aggressive" nature of transgressive learning—confronting basic assumptions of inequality and environmental degradation in society—and the need for understanding and respect for other worldviews and realities. As a form of collective learning, transgressive approaches require substantial reflection on what structures should be disrupted, how learning can contribute to such disruption and, importantly, the consequences for people and the environment of changing the status quo. For although it takes courage to confront the system, empathy is also vital for recognizing that even if disruptions may be necessary, they will always involve uncertainty and pain for those who are not ready to change.

Characteristic 3 - Transgressive learning addresses wicked sustainability issues characterized by their complex, fluid and transient nature.

The uncertainty referenced in the previous paragraph has led policy makers and academics to employ the term "wicked" to describe the quagmire of the sustainability concept (Australian Public Service Commission, 2007; Krasny, 2013). Rather than single, all-encompassing solutions to resolving sustainability challenges (for instance, technological development), there is an increasing understanding within sustainability circles that multiple perspectives and types of knowledge, worldviews and strategies are needed to address interconnected nexus challenges such as food sovereignty, social justice, water and energy needs.

The complex nature of wicked sustainability challenges suggests that a routine problem solving approach is insufficient, as the effort to reduce the problems of the world into smaller, manageable chunks negates the interconnected nature of the world. Instead, it is argued, we need more systemic and reflexive ways of understanding our ever-changing environment. Wals et al. (2008) note, however, that critics of such an emancipatory view argue that we already have a good idea of what is sustainable or not, and by the time we have all gone through the process of self-emancipation, it will be too late.

Our research has shown that although society may have a somewhat shared understanding of what is sustainable at a discourse level, day-to-day realities in

situated contexts are far more nuanced. Research into the ecovillage Atlántida—a member initiative of the network CASA—has shown that even in a seemingly homogenous community of people intentionally living together to fulfil shared visions of sustainability, tensions and dissonance were generated over time on account of differences in worldviews, work rhythms and sexual practices (Chaves et al., 2015). From a flourishing community of over 20 people, this community ultimately collapsed. Through collective reflection sessions, remaining residents acknowledged that their original visions of living a communal and harmonious life had changed over the years, and due to a lack of communication and emotional management, these differences had unwoven the social fabric of the community.

From a researcher perspective, it was enlightening (though tough) to research and be part of the Atlántida community. On one side was the strong *warrior* feeling of being part of a community outside of mainstream norms and society. We were activists, courageously fighting the system not only through talking, but also through walking the path of sustainable living. Such resistance to modern conventions involved relearning how to live with the cycles of nature, and opening oneself up to processes of personal growth and spirituality. It also involved the fickle challenges of living *together* with people in a community—of confronting the dominant narrative of individuality. Although romantic at times, this *warrior* approach proved problematic. Like the example of the Greenpeace activists up against a giant whaling ship—of David versus Goliath—this type of activism reinforce the dominant divide between *warrior* activists and the population at large.

In many ways, communities such as the ecovillage Atlántida represent an ideal, though unattainable, way of living in harmony with Mother Earth. The experiment of the ecovillage Gaviotas, in the eastern savannas of Colombia, further demonstrates the challenges of such initiatives. Gaviotas comprises a group of engineers and scientists who have attempted to create a model of sustainable living (Weisman, 1998). Despite multiple innovations such as hand pumps capable of tapping deep sources of water, and a massive reforestation project, maintaining a long-term community in the face of complicated political and social realities has proven difficult, and Gaviotas constantly faces an uncertain future.

Rather than fighting the system, our experiences have demonstrated the importance of empathic forms of activism, whereby sustainability is viewed as a process-oriented negotiation between ways of being in the world. Although a "sustainable ecovillage" sounds powerful in a report, we consider it impossible in practice. What appears more attainable are the capacities of critical self-reflection, as well as the ability to empathize with fellow human and non-human actors. To the transgressive researcher, such decolonial perspectives place a great focus on experiential learning, where ethical engagement and theoretical stances are embodied in practice (Bhaskar, 1993). With respect to experiential

and process based learning, we thus need to be careful not to label initiatives such as the community Atlántida and Gaviotas as "failed." Although the original community of Atlántida collapsed, such experimental spaces are an inspiration to many people who visit and live for periods of time in these communities, such as the authors of this paper. In the case of Atlántida, new people are moving to the community with new ideas and skills, demonstrating an organic process of death and rebirth.

Characteristic 4 - Transgressive learning methodology is normative and characterized by "ecologies of knowledge."

Building on the need for multiple perspectives and types of knowledge, the T-Learning project is co-designed (Lotz-Sisitka et al., 2016). It seeks to explore transgressive learning *in situ* across cultural contexts. Methodologies focus on transdisciplinary research, with an emphasis on boundary-crossing academic, civil society, government and even non-human realms (Akkerman & Bakker, 2011). Its epistemological basis is on "ecologies of knowledge" (Sousa Santos, 2011), which focus on establishing cognitive justice between modern and non-modern worlds. The general goal is generating and contributing to new or marginalized narratives of sustainable good lives. Such narratives have the potential to represent innovative "keys" for helping to unlock the nexus challenges mentioned earlier in this paper. In this way, transgressive learning is explicitly normative—it challenges taken-for-granted social norms.

In this section we discuss the ontological aspect of activism arising out of the Colombian case study. As noted by Lotz-Sisitka (2009), ontology plays an important role in EE, influencing how and why we come to particular forms of research. It also provides a reflexive referent for our epistemic endeavours, i.e., it helps us to understand that our *thoughts* about being may not always be the same as *actually* being. This is significant for the activist researcher because it brings into sharp focus the oftentimes epistemic and ontological disjunctions of politics, forcing us to consider the meaning of ontological politics anew, i.e., compelling us to examine the politics of being. Moore (2015, p. 9) proposes that ontological politics of modern world history may be typically and incorrectly cast as "a history of relations with environmental consequences." Through review of four decades of environmental thought, Moore proposes to counter this, suggesting that a new framing of such politics is possible : "modernity does not only act *upon* nature, but develops *through* the web of life" (p. 9). The object of modern crisis is therefore "a relation of organising and reproducing life, power and capital"—all of our activity *is* "environment making" (p. 9).

The methodological considerations of the performativity of ontological politics became apparent through the authors' active participation in the 2015 gathering of the CASA network called *El Llamado de la Montaña* (The Call of the Mountain). This took place in the Indigenous University of Misak in the southern

Colombian territory of Guambía. Central to the cosmology of the Misak people is the notion that the territory is alive—that it is living and breathing. Living a *buen vivir* means harmonizing relations between territory, the community and oneself. Many participants of this intercultural event were challenged by such an ontology, instead embracing a more modern ontology—one that is far removed from daily relations to spirits, territory, and energy levels. To demonstrate these otherworldly encounters, we provide a narrative of the harmonization ritual the Misak medicine men conducted to cleanse participants for the territory:

> Late in the afternoon, the cleansing of participants was programed. Participants were asked to sit in a horizontal line behind a group of medicine men who were "speaking" to the territory. Without explanation, people accepted the situation and waited for something to happen. After two hours nothing had "happened." The medicine men stood gazing out into the mountains, whispering softly to the wind, while participants began to feel cold, tired and bored...Eventually a thick mist began descending from the mountains enveloping everyone, further decreasing the temperature and silencing the singing. Many participants, tired and cold, started leaving for their tents. At last, a medicine man explained that the mist was the actual cleansing. He brushed each person front and back with a branch soaked in water infused with medicinal plants. The ritual was over; the remaining people stumbled back to their tents in the dark, some confused, some contented, and most just ready for bed. (Chaves, Macintyre, Verschoor, & Wals, 2017b, p. 7)

As Moore (2015) points out, the translation of the philosophical position that being in the world is an environment-making process requires care and development in terms of methodological premises, narrative strategies and theoretical frames. The above narrative demonstrates some of these considerations for the transgressive researcher. First, the premise that there are "other" worlds—in what some academics describe as the "pluriverse" (see Escobar, 2011)—demands the researcher to remain open-minded, accepting that although we may not be able to "see" or understand other worlds, they still exist. This may sound poetic, but as the anecdote demonstrates, there are politics in these encounters which are not always so comfortable or understandable. A *warrior* approach to investigating these other ontologies, and judging them, risks the reflexive pitfalls of thinking that we actually understand them. Perhaps more useful, though much less definite, is a more *empathic* approach, which requires a relational, critical and transgressive style of ontological politics. This is emergent in a type of research that is experiential and reflexive as an environment-making process in the web of life. Sometimes, as researchers, we need to have the courage to sit back and acknowledge that we do not understand what is happening; we need to accept that we are part of the web of meaning being performed by a multitude of actors, of which humans only make up a very small part.

Characteristic 5 - With their emphasis on participatory, reflective, and narrative approaches, transgressive methods are performative by nature.

A recurring theme in the sections above is the notion that social life is performative, or "environment-making," as Moore (2015) describes it. This complements the increasing skepticism in the postmodern world regarding the objectivity of the researcher, the generalization of knowledge claims, and the naive realist agendas where the researcher is put above the subject and the method is prioritized over the subject matter (Spry, 2001). This is nowhere more clear than in the field of methods, where authors such as Law (2004) argue that methods do not just describe social realities, but help make them. This highlights the *performativity* of the researcher, where, through our researcher narratives, we are producing storied performativity (Blaser, 2014).

Method deals with how the researcher goes about collecting the information which constructs these stories. In this respect, knowledge co-production is an important aspect of the T-Learning project—and not just as co-designed research, but also in terms of creating knowledge *together* with research subjects. In the Colombian case study in Atlántida, we embraced Participatory Action Research (PAR) so as to become part of the social lives of the study. Beyond action research as a method, Fals Borda (2006) emphasizes the added participatory involvement of the researcher in what he describes as "praxis-inspired commitment," whereby the researcher goes through a process of decolonization from the dominant expert-based institutional logic, and assists intellectual and political movements for people's self-reliance and empowerment.

In the case of Atlántida, we attempted to adopt this method through joining the community as residents and partaking in active decision making processes, while at the same time upholding our role as researchers. An important result of this approach was the willingness of two of the residents to become co-researchers. These community members wrote reflections on their life in the community, one of them conducted interviews with other community members, and both contributed as co-authors to the publication of a peer-reviewed article (Chaves et al., 2015). This was rewarding to us as researchers, as it provided a real means of including the community members in the knowledge we were generating. However, in line with what Gottlieb (1995) and Maxey (1999) note, research collaboration is problematic in practice and in terms of representation. Apart from the challenges of one of the co-researchers not speaking English, which necessitated much document translation, a fundamental question was the extent to which the end product of the journal article represented the views of the co-researchers. The written reflections by the co-researchers had to be woven into the article, with changes in translation as well as content resulting as word limits had to be respected and main arguments refined. One co-researcher was skeptical about whether the changes maintained her intended meaning, and she communicated feelings of disappointment about having her words bent to fit the article. The two lead authors sat down with the co-researcher, listened

to her concerns, and explained how her ideas and written words had been incorporated to support the main argument of the paper. Small changes suggested by the co-researcher were then made to the manuscript to reflect some of these concerns. Conversely, the other co-researcher displayed little interest in the representational process.

The representational process highlights the tensions inherent in the beautiful concept of "knowledge co-production." Breaking with the objective expert as the sole owner of knowledge, more horizontal forms of knowledge production have a strongly activist feel about them, suggesting empowerment and emancipation for often marginalized groups in a society. It is important to remember, though, that research and social life are inherently performative, which means they are also political because of the power relations they enact. The presence of power relations demands the strong ethical consideration that if we are influencing specific events through *what* and *how* we research, then we have a responsibility to help create the realities we want to realize. Acknowledging these power structures and responsibilities takes courage and demands reflection on the part of the transgressive researcher. It inherently involves balancing the fine line between disrupting ingrained unsustainable habits and caring for the relationships that give meaning and happiness to our lives.

Conclusion: a not so silent spring

The greatest challenge facing humanity is taking responsibility for the way we are treating Mother Earth. In many ways, those arguing for a more *warrior* stance to learning are correct when they say that most of us know that our lifestyles are unsustainable, and that we are running out of time. We *are* running out of time, and although emancipatory approaches to empathic learning appear to be more just and liberating, there appears to be a good chance that it will be "too little too late." On the other hand, history has shown the tyranny of fear-induced power, and the prospects of an eco-totalitarian regime are not for the faint hearted—massive programs of "rewilding," for example, where people are contained in mammoth techno-cities (happy or not), while nature is left to *be* nature (Brand, 2010).

This paper has dealt with the importance of reflection, empathy and courage in the transgressive researcher so as to better understand and *act* within the complex dynamics of current socio-ecological challenges. Yet, as we have attempted to demonstrate, we are *all* activists in that we shape and perform the world in our everyday actions. As a collection of activists, we have, however, reached a turning point in our history where we have to make a change to survive. If we do not make these profound and surely painful changes to our habits—if we do not learn from our mistakes—then perhaps the following spring will *not* be so silent.

In his book titled *The world without us*, Alan Weisman (2008) provides an

account of a world where dampness and frost are breaking up the concrete jungle of New York. Seeds blow in with the wind, finding space in crooks and crannies, sprouting in newly forming humus, and growing into trees. Coyotes, wolves and bears re-enter the city. Slowly but surely, Nature, with all its noise and charm, will reclaim the domains which humans temporarily inhabited, but in which they are now no longer a part. This is a surreal image, and on one level it is a little sad. On another level, however, one can accept that this is just the way Nature works. This is the web of life taking its natural course—one in which our time as a species has come to an end.

Notes on Contributors

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Untrodden Paths: A Critical Conversation About Wilder Places In Outdoor Education

Jo Straker, Tom G. Potter, & David Irwin

Abstract

This paper asks, what is the outdoors, and challenges conceptions of the role the outdoors play in education. It critically examines why a better understanding of the outdoors is important to outdoor education, how wilder places are essential to education, and how learning generated from these places can be translated into sustainable thinking and action. The enquiry is presented as a discussion between three experienced outdoor educators on international understandings of the outdoors and wilderness. In particular, they explore whether taking students to wilder places supports myth-making in uncritical ways, or whether experiencing these places reconnects them with nature, modifies their worldview, and in turn brings important aspects of the wild into their decision making about how they wish to live on the planet.

Résumé

Qu'est-ce, au juste, que le plein air? Quel rôle joue-t-il réellement dans l'éducation? En quoi une meilleure compréhension de la nature profite-t-elle à l'enseignement en plein air? En quoi les espaces naturels et sauvages sont-ils essentiels à l'éducation? Et comment les apprentissages qui s'y effectuent se traduisent-ils en pensées et en actes? Cet article examine scrupuleusement ces questions. Il prend la forme d'un échange entre trois éducateurs chevronnés sur les différentes conceptions dans le monde des notions de plein air et de nature sauvage. En particulier, les trois intervenants se demandent si le fait d'emmener les élèves dans de tels endroits encourage une forme de fabulation naïve, ou si cela leur fait tisser un lien avec la nature et changer leur perception du monde au point d'influencer leurs choix personnels et la façon dont ils entendent vivre sur cette planète.

Keywords: education for sustainability, environmental education, outdoors, outdoor education, place-responsive, wilderness, wildness

Introduction

Among the many poetic statements Wendell Berry has been credited with can be found two pithy maxims: "If you don't know where you are, you don't know who you are" (cited in Stegner, 1992, p. 199) and "If you don't know where you're from, you'll have a hard time saying where you're going" (in Goodreads, 2012, para. 35). The places where we live, recreate, and work are important; we

react to them in ways we are not always conscious of. They shape our identity and how we live our lives (Hiss, 1991).

Becoming more aware of the ways that places not only influence our learning but also inform who we become potentially changes the epistemological foundation of the outdoors. This increased cognizance modifies our surroundings, turning what was once a venue, or a backdrop against which we learn, into an integral part of who we are. As Rowles (2003) notes, "the self is in and of rather than separate from the individual's environment," adding "that lives are intimately and inextricably immersed in place" (p. 111). The importance of place is rising as more outdoor education scholars engage with the epistemological and ontological concepts of place and explore how different environments offer quite distinctive conceptions of outdoor education.

Dakin (2003) suggests that outdoor images of sunsets, forests, lakes, and mountains represent holistic ways of interacting with the world, as they can generate emotional responses that become significant events in our lives. In Canada and Aotearoa New Zealand, pristine, mountainous, and uninhabited areas have gained special status that resonate with aspects of national identity. Many Indigenous groups challenge this construct of uninhabited wilderness, but for marketing and building national identity attachment to wild lands remains a dominant theme. As outdoor educators, an important question to ask is, does taking students to wilder places support myth-making in uncritical ways, or does experiencing these places reconnect us to nature and in turn bring important aspects of the wild into our everyday lives?

While most outdoor education does not occur in remote or pristine areas, many outdoor educators seek locations that offer feelings of "being natural" because these areas are less dominated by human influences. Being in these settings creates a sense of distance from daily lives, which offers students opportunities to evaluate social values and their embedded habits. Looking beyond received wisdoms can help develop new understandings about "the way the world is." Place-based education is a distinct model of outdoor education that prioritizes local areas where students can engage with the cultural and ecological integrity of the places they inhabit. Often, placed-based knowing stresses the importance of ongoing and generational attachment between people and places, in such a way that each generation who enters that specific location is able to form an intimate relationship with it. While learning about the local area is valuable, engaging with the wider natural world is also important. Hence, another term that is gaining resonance for outdoor educators is *place-responsive* (Wattchow & Brown, 2011). A place-responsive approach is more about full-bodied pedagogical action and engagement and less about living in, and being established in, a certain place. Both place-based and place-responsive approaches are also key concepts in contemporary environmental education pedagogy.

The distinction between outdoor education and environmental education is contested by some educators (Irwin & Straker, 2014). At some times they have been perceived as being one and the same, while at other times there has

been a perceived tension between them. In these latter cases, outdoor educators have been critiqued for promoting competitive attitudes to the environment (Irwin & Straker, 2014). In Aotearoa New Zealand, there is currently no official requirement to teach environmental education and, as such, the discipline has struggled to become firmly established. Outdoor education, on the other hand, holds an official place in the national curriculum (Ministry of Education, 2007). Thus, outdoor education is a viable and valuable curriculum area through which critical environmental issues can be raised. However, this requires a considered approach not only to what kind of education takes place outdoors, but also to where it occurs.

This paper is based on a critical conversation via email between the authors about the importance of different environments for learning. We were particularly interested in how wilder places are used in outdoor education and whether learning generated from these places can be translated into sustainable thinking and action. Initially, we responded to a series of questions about international differences, which created opportunities for further discussion and debate. This paper begins with a brief grounding of our biographies and perspectives before presenting our dialogue and drawing some conclusions from it. It should be noted that while none of the authors identify as Indigenous, all claim a deep sense of belonging to their respective landscapes.

A Brief Introduction of the Authors

Jo– For the last 40 years I have worked as an outdoor educator in Britain, Canada, Australia, and Antarctica, and until recently I taught in a Bachelor of Sustainability and Outdoor Education program in Aotearoa New Zealand. Throughout my work I have listened to countless stories about how outdoor experiences have impacted individuals' life and learning opportunities. Though I have also noticed that many outdoor educators do not fully explore what they have in mind when talking about *the outdoors*, there nevertheless seems to be an assumption that it has a universal meaning. Understanding and appreciating the variety of nuanced meanings of *the outdoors* is significant, as our personal interpretations affect how we manage and educate through, about, and for the environment.

Tom– As a Canadian with about 35 years of experience teaching outdoor education, I've spent considerable time, in all seasons, in natural places—many quite remote. This has helped to shape and define who I am today. As my love for sharing time with people in natural areas has grown, so too have my experiences and my professional and academic credentials. These have increased alongside my frustration about the value of the outdoors being misunderstood— and thus undervalued and contested—by both academia and society at large. Since a casual observer can easily overlook the complexity of the outdoors, I have continually worked hard to educate and challenge these views; but as

Loughran (2009) notes, "Beliefs (especially when built up over a long period of time) are not easily changed" (p. 191). The impact, success, and future of outdoor education is deeply important to me, and I feel a responsibility not only to help it continue to progress, but also to influence it in a way that best serves society. I believe this can be achieved, at least in part, by creating authentic educational experiences that have deep relevance for students (Beames, 2016), and also by engaging students emotionally while fostering deep learning toward oneself, others, and the environment.

Dave– I originally trained as a primary school teacher, but for about 25 years I have been teaching primarily adults in the outdoors. How I position myself in relation to the discussions that follow reveals the complexity of the interaction between individuals, their communities, and the landscapes they occupy. As with Jo and Tom, remote landscapes have played a big part in my life. Although I have lived and worked in many parts of the world, I have a strong sense of belonging in Aotearoa New Zealand. With this sense of belonging comes an obligation and responsibility akin to the Māori concept of *turangawaewae* (Māori are the Indigenous Polynesian people of Aotearoa and turangawaewae is their expression of place). I have come to understand the ecological interconnectedness of all things, that humanity is part of very complex and dynamic ecosystems, and that anthropocentric thinking is the root cause of many problems that humanity currently faces. As an educator, I am particularly concerned with challenging learners to consider alternative ways of thinking and acting from those their social and cultural contexts have accustomed them to. How we perceive the outdoors is integral to this concern, for perceptions are not universal or constant, but rather manufactured through our interaction with the world around us.

In this paper we ask, what is *the outdoors*, and we challenge conceptions of the role *the outdoors* plays in education. We have endeavoured to elucidate why a better understanding of the outdoors is important to outdoor education, and in doing so, to strengthen the value of its foundations.

A Conversation

Please note that the following "conversation" has been edited for clarity and coherence.

Jo– Hi Tom, you've worked in Aotearoa New Zealand (NZ). Do you think there is a difference between what many Canadians call wilderness and what New Zealanders refer to as *the outdoors*?

Tom– Wilderness is certainly a contested term with its own cultural understandings and nuances. For example, while many Canadians use the term wilderness, this Eurocentric perspective overlooks the Indigenous cultures, many of whom do not identify with the term. For them what is often called "wilderness" is "home"; it is as much a state of mind as a physical entity (Potter &

Henderson, 2004). Bob Henderson (personal communication, 2004) unpacks the term "wilderness" by calling it "wild-ness." I think wild-ness speaks better to the Canadian understanding of more remote natural places in Canada. However, as wild and void of modern cultural objects as it may seem, most travellers will be challenged to find pristine places, let alone untravelled areas, within Canada's borders. First Nations peoples have travelled this land for countless generations, and the resource extraction industry in Canada is working hard to find "riches." So, while it's possible to get away from modern civilization and feel wild-ness, air traffic and insidious toxins are found in most places.

Jo– That's interesting. Do you think remoteness is an important part of wilderness?

Tom– It's tough to generalize what Canadians think about wilderness, or wild-ness, as our land spans six time zones; the area is so vast, and people's experiences and cultural backgrounds are so broad. I'm not so sure we have a Canadian understanding of what nature-based, or outdoor, experiences are. To some it would involve a bush plane flight north, while to others a trip to a national or provincial park would suffice. Then there are yet others who would be thrilled to be on the backside of a farm or in an inner-city park.

So, is there a different understanding of the outdoors between Kiwis and Canadians? Yes and no. I think our more front-country types of understandings would be quite similar. However, the nature of Canada's size does provide us with opportunities to participate in remote journeys where recreationists can travel for weeks and not see much evidence of modern life. In many ways people can still have the privilege of travelling the land and experiencing it in much the same way our predecessors did centuries ago (Potter & Henderson, 2004). As such, some experienced outdoor recreationists crave the opportunity to seek total solitude. So, their definition of the outdoors would include the more remote, which usually means north.

Jo– I agree that a diverse range of spaces and places constitute wilderness and the outdoors. The Canadian north is vast, so it's not surprising that it dominates in many Canadians' psyches as the nation's remotest area.

The term "wilderness" is not as significant for New Zealanders, although the legal definition focuses on the preservation of relatively unmodified landscapes; hence, tracks, huts, and bridges have been removed or no longer maintained (Wilderness Advisory Group, 1985). This means that while recreation is not banned in wilderness-designated areas, it is also not encouraged. The underpinning assumption is that humans spoil wilderness. Certainly some of the extractive industries are causing long-term issues that threaten the ongoing sustainability of the planet, but beliefs that humans always contaminate nature means our ability to establish stronger connections with nature is threatened. So, for me too, much attention on *remote and pristine* being the authentic state of the world can be a problem, as it is hard to be an intimate part of nature when you are positioned as an unwelcome alien.

Dave– You both bring up some interesting points. Tom reveals that although it is possible to distance oneself from the urban landscape, it is virtually impossible to distance oneself from the impacts of human endeavour. These impacts are far-reaching and more severe than most people realize. The Millennium Ecosystem Assessment (UNESCO, 2004) found that 60 % of the planet had been degraded, and no part of the planet was free from human impact. In Canada, approximately 60 % of old growth forests are now gone, along with the species that made their home there (e.g., see Klein, 2015). In Aotearoa NZ, this percentage is somewhat higher, with exotic ecosystems that are dominated by introduced species now being more significant than ecosystems featuring endemic and native species. According to Rockström et al. (2009), two planetary systems in crisis, and even possibly in a state of collapse, are biological diversity and habitat, both of which have suffered losses through land conversion for human use. From my perspective, most perceptions of wilderness, wild-ness, and remoteness overlook the reality that most of the planet has been tainted by human contact. I would argue that any pursuits of remote experiences that have the goal of regaining a nostalgic past need to be framed by this reality. If they aren't, the experiential learning is likely to be falsely valued.

I would also like to pick up on Jo's comment above about developing a sense of belonging. I agree that this is a very important aspect of taking students outdoors, and I admit that belonging is experienced on many different levels and can occur across many landscapes. But for Māori, *mihi* (a greeting including the expression of place) draws belonging down to the local, and many other Indigenous cultures (such as First Nations Peoples of Canada) do the same. Iwi (Māori tribes) generally remained in one place for extended periods of time, often for many generations, and they extensively modified their local landscapes through settlement and agriculture (Flannery, 1994). However, some Iwi were also very mobile, covering large distances to access seasonal food and other resources such as greenstone (jade). However, since Māori developed universally understood concepts of *pūihi* (wild forest) and *koraha* (wilderness) (Ryan, 1989), it is likely that these places held less familiarity than local landscapes, some uncertainty, and a sense of wildness (personal communication, Hemi Hoskins, 9th Feb 2017). Still, these terms do not indicate that these people were uncomfortable in these places, for both oral tradition and colonial records describe a deep knowledge of place that allowed for travel to occur over extended periods of time. Indigenous cultures evolved over millennia in response to the unique geographies and ecologies of place, and there is much variation in how different first peoples developed their cultures and perceived landscapes (Flannery, 1994). Such cultural frames are encapsulated in creation traditions, which order the universe and provide guidelines for interaction (Hoskins, 2012).

This Indigenous sense of "belonging to the local" is highly valued in environmental education discourse. And in Aotearoa NZ, belonging is often framed in indigenous terms by both Indigenous and non-Indigenous peoples. This is

because, as pedagogical theorists such as Jensen and Schnack (1997) argue, intimate knowledge of local places and their existing problems leads to ownership and action to initiate change.

Jo– I don't deny that local knowledge is important, but some local and national beliefs of ownership can exclude others. Building relationships with areas through journeys is also possible when the traveller is empathetic to the environment. Relph (1976) suggests that mobile lifestyles remove us from knowing our place in the world and set us adrift. His hierarchy promotes home—where one's roots are—as the most authentic and worthwhile form of connection. Cuthbertson, Heine, and Whitson (1997), along with Kaltenborn and Williams (2002), challenge Relph's hierarchy, instead offering a positive account of mobile lifestyles, which, they maintain, help develop a holistic and interconnected sense of place. Some place meanings, which emerged from studying nomadic life, revealed ways of inhabiting the earth that encapsulated a certain freedom and lightness. For example, nomads were intimately connected to a wide range of environments, despite not having a sense of ownership or control of any of them (Chatwin, 1988; Rao, 2002). Other research indicates that individuals form significant personal relationships with places through participating in a range of fun recreational activities and slow journeys. While these are different from living in a place, they nevertheless help to raise consciousness about, and build our connection to, the planet (Brymer, Downey, & Gray, 2009; Mullins, 2009; Wattchow, 2008).

The next question relates to whether it is important for education to go outdoors and, relatedly, how much wilder somewhere has to be to make it relevant (or not) for education.

Tom– So much of this depends on learning outcomes, values, and perspectives. For my students, the wilder location I can get them to, the better—but this often comes at a cost of time, money, and logistics. And, of course, we must consider our impact on the environment. That being said, I, along with the more place-responsive educators (Beames, Higgins, & Nicol, 2012; Wattchow & Brown, 2011), do believe that the schoolyard and park across the street can be extremely relevant and impactful; but this is dependent on our own values as teachers as well as on our teaching objectives. So yes, incredible learning can be accomplished "in town," but since wilder nature-based experiences are relatively accessible for many Canadians, "going out on the land" or "into the woods" is highly valued for many educators (Asfeldt, Potter & Henderson, 2013). Interestingly, it seems to be academics from Australia and Aotearoa NZ, and to an increasing degree the UK, that are challenging this dominant discourse about outdoor education requiring wilder places and are promoting a more sustainable place-based curriculum—a discourse that most Canadian provinces and territories have begun to participate in.

The growing body of literature re-envisioning outdoor education to more fully encompass educating for a sustainable future is perhaps somewhat

controversial (see Beames et al., 2012; Irwin, Straker & Hill, 2012; Wattchow & Brown, 2011). I praise these and other authors for questioning long-held assumptions and challenging conventional thinking; it is through controversy and debate that the field of outdoor education will continue to move forward and best serve society. This literature certainly challenges my views and expands my thinking, and for that I am extremely grateful. However, while I see socio-ecological perspectives as an integral and growing part of outdoor education and believe that it should be woven through virtually all of its aspects, I think this advocated focus by some should not come at the expense of personal development and outdoor skills. Therefore, I believe a delicate blend (personal development, outdoor skills, and socio-ecological aspects) is necessary and needs to be more strongly encouraged. Furthermore, incorporating "wild pedagogy" (Jickling, 2015) by encouraging students to "go wild" with intention can help students develop a deeper understanding of, relation to, and value for nature—a critical step in developing stewardship philosophies and activism toward environmental sustainability and protection. As such, Jickling (2015) speaks to this purposeful "wild" interval.

> The promise of wildness, it seems, is access to a sensuous world, and a way home. Outdoor life may provide a necessarily a part [sic] of this access, but it may not be sufficient. What may be required is a more profound disruption of one's ontological positioning. (Jickling, 2015, p. 160)

Building on thinking like Jickling's, many Canadian outdoor educators take students to more remote places, whether it be the outdoor residential camp, the overnight or extended canoe trip, or the snowshoe to a winter yurt. It is here that generations of Canadians have experienced the "wild-ness" of Canada and come to know and better understand, through their own toil and sweat, the people who came before them. As Potter and Henderson (2004) have observed, "There is also a strong sense of a real and mythical north that pervades a Canadian approach" (p. 69). Many Canadian outdoor educators seek a

> wilder nature for their students, and in so doing expose them to the ways of our North. They offer them the adventures of camping and travel skills, intra- and inter-personal skills, nature and heritage interpretation, survival/bush craft skills and knowledge of newer technologies (e.g., GPS). They hope to fill their hearts and imaginations with the pristine – the landscape from which Canadian exploration and settlement stories originated. Canadian outdoor educators hope to connect people to a well-storied landscape that gives Canadians so many of their icons: the beaver, the canoe, the loon, the snowshoe, the majestic white pine, the open sublime space, the winter stillness. And so, Canadian outdoor educators take people to find a personal and collective adventure of the spirit that they can find there. (Potter & Henderson, 2004, p. 85)

While heading north to explore the more pristine is revered by many Canadian outdoor educators, I don't think this wilder experience is any more

relevant than schoolyard learning. For example, while cross-country and alpine skiing share many characteristics, they are nevertheless distinct. In other words, they both offer similar and different learning outcomes. How much "wilder" does an outdoor education experience need to be to make it relevant? They are all relevant. Is a wilder outdoor education experience better than a less-wild one? No. Both can offer profound learning opportunities.

Jo– I agree exploring the wild is not *more* valuable, but wilder experiences do offer a distinct value, one not available in classrooms or city parks. One educator in my research (Straker, 2014) suggested that some space between school and outdoor education settings was required for students to change their mindset. He didn't know how far he had to travel, but his observations had led him to believe that it needed to feel different from a classroom. The idea of places changing one's way of thinking is significant for outdoor education. In my opinion this difference was diluted when the definition of Aotearoa NZ's Education Outside the Classroom (EOTC) changed from "learning that extends beyond the four walls of the classroom," to "learning and teaching that extends the four walls of the classroom" (Ministry of Education, 2009). EOTC in Aotearoa NZ is the Ministry of Education's term to encapsulate learning and teaching which occurs outside the classroom. And so the change, while subtle, is relevant, since the inclusion of walls indicates containment. This blurring of indoor and outdoor educational spaces means many of the norms of schooling are actually reiterated in the outdoors, which can limit what students experience and learn.

Experiencing a range of outdoor locations provides students with opportunities to learn in diverse ways. In moving away from the familiar, students become more cognizant of where they are from, seeing things afresh. By climbing up onto the ridge tops and looking down on the land, students observe the interconnectedness of farms, waterways, bush, and settlements. When Ingold (2010) states the ground becomes "level, homogenous, pre-existent and inert" (p. 120) when it is coated in asphalt or concrete, he highlights how what we can know is influenced by where we are. As such, we are inclined to think we live *on* the world rather than *in* the world. Evernden (1985) also notes that creating a people–environment dichotomy is problematic as humans are immersed in the world through bodily, cognitive, and emotional ties. Many outdoor environments teem with life; they activate the senses and allow moments where it is possible to realize that everything is connected. In moving through and physically engaging with the world, the body becomes an important way of knowing and learning about our connection with the environment (Atherton, 2007; Barbour, 2004). Classroom learning is still vital, but so too is being outdoors. It is important to offer different learning experiences to stimulate well-rounded understandings of the world.

Dave– So effective learning can take place inside the classroom just as it can outside the classroom, and of course the opposite can also occur. Learning is context specific; what is being learned should drive the educational context and

not the other way around. Experiential learning pedagogies can be effectively utilized across all curriculum areas and also across the continuum of urban and remote landscapes. Organizations such as Enviroschools are modelling experiential pedagogy very effectively in Aotearoa, NZ, and they now have over 30 % of schools engaged (Enviroschools, 2015). I would argue that it is the careful alignment of context and content, which is at the heart of experiential learning, that is most likely to meet Jickling's (2015) challenge (cited above) relating to the profound disruption of learners' ontological positioning. This is because ontological positioning is related to identity, and identity formation processes are embedded, for the most part, in the communities and places we live.

Jo– The next question is, how does educating in wilder places enhance the overall purposes of education?

Tom– Maybe the first part of this question then is, "What is the overall purpose of education?" I think Foshay (1991) answers this well by stating, "The one continuing purpose of education, since ancient times, has been to bring people to as full a realization as possible of what it is to be a human being…. [Education] seeks to encompass all the dimensions of human experience" (p. 1). That being the case, every fibre of my body screams that a significant part of a meaningful education should then be found outside; and I do think that for education to touch people, for it to resonate within, it needs to be emotional and meaningful. In the outdoors, opportunities abound for problem solving, emotional connectedness, and creative thinking. A critical part of being human is to build relationships with other humans and with nature; the outdoors fosters this connection. And, through a deepening relationship with nature, anthropocentrism can be disrupted so that students realize that humans aren't the only players in this world. They will hopefully understand that nature has intrinsic value. All of the aforementioned benefits of outdoor education can support and enhance the overall purpose of education: to grasp what it is to be human and to embody all the dimensions of human experience.

Dave– Of course other definitions of education exist, and some of these are perhaps more critical of the purpose of education. Freire (1970) argues that education is about power, acting to maintain or to challenge dominant power structures. Brookfield (1987) suggests that true democracy cannot be achieved without critical thinkers who are prepared to consider alternative perspectives and challenge hegemony. To return to the question posed earlier in the paper about how outdoor education can best serve society, one needs to consider the key challenges facing society, our human landscapes, and the diverse ecosystems upon which all life is dependent. If it is accepted that planetary systems are in crisis, then this crisis should be the unequivocal focus for educators. All else pales in comparison. Put another way, is the outdoor education practice in question acting to maintain dominant power structures and perpetuate dominant ways of thinking, or is it challenging those power structures through the development of critical thinkers who are capable of taking action to improve the

world? There are times where remote settings will provide a suitable context for this sort of learning, but there are also times when they will not. I think outdoor educators need to be open to the challenge of this paradox.

Tom—You raise some critical points Dave, and in many respects outdoor education practice does often act to maintain dominant power structures and perpetuate dominant ways of thinking (e.g., the hyper-masculinity and male dominance that governs the field) (Oakley, Potter & Socha, 2017). So, while outdoor education is well positioned to challenge social power structures through the development of critical thinkers, education and change need to happen to ensure that outdoor educators understand the field's potential pitfalls and take advantage of their immense opportunities to challenge students to move toward more sustainable environmental practices and just societies.

Jo— Yes, there are some outdoor education programs that could do more to challenge societal norms, but I was heartened when interviewing outdoor educators (see Straker, 2014) because most wove social critique and deeper thinking into their programs. If we can help students learn to live with the rhythms of nature rather than fighting them, then it bodes well for more considered responses about how to live on the planet. Experiencing wilder places both recreationally and as part of education can help influence ways of thinking and being (Ingold, 2004).

So how can we enhance wilder outdoor education experiences to help students develop a stronger sustainability consciousness?

Dave— Several years ago a student gave me a book called *The Golden Spruce* (Vaillant, 2005). It was his favourite book, and it conveyed a true story about one person's struggle with deforestation. The author traces the awakening of Grant Hadwin, a timber scout working in the remote Canadian Pacific northwest, as he comes to terms with the wholesale destruction of the wilderness by the industry he works for. Eventually he discovers his local, much cherished old growth forests also coming under the saw and he is driven to take a stand. It is a very moving account of personal engagement and action. I recalled this book as I considered this final question, and did so because the power of this book for me is in the paradox between the wilderness and the barren, the wild and the vanquished, the ancient and the vanished. As the book indirectly suggests, enhancing wilder outdoor education experiences so that students develop a stronger sustainability consciousness requires embracing this dual reality that many of us now find everywhere we care to look; it necessitates critically thinking about how these landscapes came to be as they are, as well as discovering *our* responses to what *we* have uncovered (I have used the terms *our* and *we* for both educators and learners). I have come to realize there are four key components to this learning:

1. Understanding what we are encountering;
2. Realizing what solutions-focussed actions are available to us and engaging in them;

3. Being open to the need to adapt to new realities; and
4. Finding a sense of wonder and fun in a life well lived.

However, these components move beyond sustainability education, for they allude to changes not only in the way we think but also more importantly in the way we act and react to the world around us. Of key concern to outdoor educators is how to make learning relevant to the places in which we live—and to do so in a manner that celebrates action. For if we cannot do that, then we have failed our students.

Jo– I also read *The Golden Spruce* and took a very different message from it. I found the anguish and torment of Hadwin almost unbearable to read about. His actions and concerns took him away from society and positioned him as an outcast. He lost contact with, and support from, the communities he originally had an affinity with. This overpowering sense of despondency can frustrate and limit action, so I'm wary of focussing on the negative. Fredrickson (2006) suggests that positive emotions broaden perspectives whereas negative emotions narrow our focus as survival needs dominate our thinking. Hence, positive outdoor experiences, which encourage creativity and exploration, extend options for how we live, solve problems, and manage future threats. These occurrences are vital for a sustainable future. They are a common element in many outdoor education programs, and they can often help mobilize interest in the environment. The issue of changing behaviour to live more sustainably is, of course, much more complex than providing positive outdoor experiences but, as Harré (2011) notes, positive feelings can help people to start on a journey of social and environmental consciousness.

Dave– It is interesting how we all take different meanings from things, but I do appreciate (and at times even relate to) the anguish and torment experienced by Hadwin; I do not think any outdoor educator is entirely free of these feelings. However, I was not advocating that students adopt a similar response to the protagonist so much as I was promoting critical engagement with what we observe and experience in the world around us and also, consequently, action. This is where I interpret the work of Harré (2011), mentioned above, as being so valuable. Critical engagement with what we observe and experience, followed by taking positive and affirming actions, empowers students and encourages an understanding that they *can* make a difference. Such affirming empowerment was visible in Christchurch following the powerful 2011 earthquake that destroyed much of the city. Out of the ruins sprung the Student Volunteer Army, a group of several hundred university students that set out to help those communities hit hardest by the devastation. These young people were able to embrace the adversity imposed on them by the earthquake and then contribute to the city's recovery (for example, by assisting the elderly with obtaining food and clean water, and by clearing out silt that inundated houses in low-lying suburbs). Within an outdoor education context, I can encourage similar behaviour by, for

example, critically engaging students with the loss of biological diversity in a landscape and then undertaking habitat restoration activity to reintroduce it. The essence of the message Harré (2011) conveys is not about happiness in isolation from the context that we live in, but rather about taking positive actions to herald change in attitudes and behaviours that lead to what she considers living well on the planet.

Tom– You both unearth such thoughtful and important points. Certainly it appears crucial that students engage critically "in," "of," and "as" a part of nature (Dyment et al., 2002) through positive multi-dimensional outdoor experiences, whereby they will have the opportunity to engage with and reflect upon themselves and others as a part of the natural world. They will then be encouraged to develop a stronger sustainability consciousness and find meaningful ways to act. I have found that Lefebvre (2000) offers the following valuable set of criteria by which we can evaluate sustainability education efforts:

1. Including ecological, social (including political) and economic elements in support of sustainability;
2. Interacting with and learning in nature;
3. Using methodologies and teaching strategies to develop skills, values, and attitudes that allow for reflection, critical thinking, collaboration, and action for social change; and
4. Integrating materials and/or curriculum that supports community involvement and participation so that educational endeavours are contextually appropriate, relevant, culturally sensitive, and inclusive.

When considering the many components of Lefebvre's (2000) criteria, we can see how instructors' interests and skills are crucial. Regarding the second criterion, for example:

> maintaining ecological integrity is at the heart of sustainable living. Yet the necessary knowledge and skills required to assess ecological integrity—even at the rudimentary level of knowing what species are native to one's bioregion—is given little, if any, attention in most curricula. Outdoor leaders with natural history knowledge and interpretation skills have a tremendous potential to reverse our current state of alienation from the more-than-human world. (O'Connell, Potter, Curthoys, Dyment, & Cuthberston, 2005, p. 87)

And, through criterion number 3 we can see that,

> combined with creative forms of delivery, these [teaching] practices allow students to be exposed to views alternative to their own, to actively reflect on the viability and the consistency of their values, and to encourage social action based on open, critical assessment of issues confronting them. (O'Connell et al., 2005, p. 89)

Ultimately, I believe that in order to enhance wilder outdoor education experiences so that students develop a stronger sustainability consciousness, curricula planners and educators need to recognize and act on their responsibility to educate students to become sustainable leaders for tomorrow. And, as you previously mentioned Dave, since educators are currently "finding their way," authors such as Lefebvre (2000) and O'Connell et al. (2005), among others, can help us travel this important path. Making the journey through wilder places can be an effective way for developing a stronger sustainability consciousness among students.

Final Thoughts

From issues of sustainability to sensuous knowing, and action to contemplation, the diversity of experiences that wilder environments can generate is expansive. Positive, fun, active, and even nostalgic experiences can comprise students' journeys of awakening. This is especially possible when educators are cognizant of challenging constructed myths of identity and a romanticized past, both of which exclude and disenfranchise Indigenous and other non-dominant groups. Debate and acknowledging different perspectives is at the heart of teaching about sustainability. Such debate offers individuals opportunities to confront core values and seek out possibilities to change their current perspectives.

Another significant point is how the outdoors helps individuals break away from dichotomous thinking and recognize the complexity of the world. When the world is not divided into urban or non-urban, ecologically fertile or barren, valuable or wasteland, then students can gain valuable learning wherever they are. Embracing these dualities opens opportunities for students to discover how to respond to and connect with multiple places within the wider world. In addition, moving to places less familiar and less comfortable often helps students of any age to challenge the status quo and their preferred habits. These diverse sites can also help to disrupt our ontological position.

What the conversation above has also demonstrated is the potential of outdoor education to engage individuals, in a positive way, in an examination of socio-environmental issues. Rather than avoiding problems such as biodiversity loss, exploitation of resources, and social inequalities, alert outdoor educators can use synchronistic opportunities to raise these concerns whilst developing students' resolve and resilience. It is imperative to note that taking students into wild areas will not promote critical thinking unless outdoor educators address the paradoxes evident in both overly romanticized notions of our past and the beliefs that wilderness offers an authentic state of being whereby humans feel like aliens in the world. As Evernden (1985) discusses, personal encounters with the outdoors that are focussed on love and care can help many individuals overcome feelings of alienation. One way to help overcome this alienation is for education to focus on relationships with the wild, rather than on adventure

activities. If educators embrace the potential opportunities wilder areas offer, then indeed such experiences can positively inform our youth. Seizing such opportunities may help us all adopt a more sustainable approach to living within our planetary boundaries.

Acknowledgements

Notes on Contributors

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Place-Based Environmental Education in the Ontario Secondary School Curriculum

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Abstract

This study reviews the Ontario secondary school curriculum in light of recommendations made by the 2007 Bondar Report, Shaping Our Schools, Shaping Our Future. *It analyzes curriculum expectations and enrollment data for the purpose of reporting upon and providing recommendations for place-based environmental education. The extent and prescriptiveness of the coverage of place-based environmental education by subject, course, grade, and course progression or pathway are presented. Environmental education in Ontario does not have its own discrete compulsory courses and despite having been "embedded" in the curriculum, the important arenas of place-based environmental education are being applied inconsistently across the compulsory curriculum. Poor enrollment in electives shows that the focus of students remains elsewhere, fracturing progression of environmental education in Ontario's secondary schools.*

Resumé

Ce travail examine le programme d'études secondaires de l'Ontario à la lumière des recommandations formulées en 2007 dans le rapport Bondar, Préparons nos élèves – Préparons notre avenir. *Nous analysons les attentes définies dans le programme et les taux d'inscription dans le but de formuler des recommandations pour favoriser une éducation à l'environnement axée sur les réalités locales. Nous présentons également en fonction des matières, des cours, des niveaux et des différents parcours académiques dans quelle mesure et avec quelle obligation cette approche est appliquée. En Ontario, l'éducation à l'environnement ne fait pas l'objet de cours obligatoires dédiés, et même si elle a été « intégrée » au programme, certains éléments importants sont parfois négligés. Les faibles taux d'inscription dans les cours à option témoignent d'un intérêt mitigé chez les étudiants, et freinent la progression de l'éducation à l'environnement dans les écoles secondaires de la province.*

Keywords: place-based environmental education, curriculum, Ontario, secondary school, enrollment, electives, Bondar Report, field study

Introduction

Rooting environmental education (EE) in one's own community and outdoor environment is key to conceptualizing environmental education. Often referred to as *"place-based"* environmental education, this aspect of EE fosters student engagement in and connection to their immediate environment, grassroots innovation, and environmental stewardship. In Ontario, the report titled *Shaping Our Schools, Shaping Our Future* (OME, 2007b) recognized the importance of making opportunities for place-based EE a regular part of the classroom (Borland, 2015). Furthermore, the provincial *Standards for Environmental Education in the Curriculum* (OME, 2008), which "help curriculum writers devise and incorporate environmental education expectations and opportunities across the curriculum," recommend that the curriculum provide students with opportunities to:

1. Engage in authentic learning situations and interactions in their local environment (e.g., natural, built, cultural);
2. Explore and appreciate the outdoors, to help develop their understanding of the local environment;
3. Develop and communicate a sense of connection with the local and global environments; and
4. Demonstrate environmental stewardship by thinking globally and acting locally.

The question still arises as to how rooted place-based EE is in the curriculum in light of these and other changes made following the publication of *Shaping Our Schools, Shaping Our Future* in 2007. Using the secondary curriculum and environmental policy documents, as well as enrollment data from the Ministry of Education, this research aims to: determine the extent of placed-based EE coverage in the compulsory Ontario secondary school curriculum; assess the prescriptiveness of the curriculum in this regard; and provide curriculum, as well as pedagogic and programming recommendations, to promote EE.

Literature Review

History of Environmental Education (EE) Curriculum in Ontario

From the late 1980s to the late 1990s, Ontario secondary schools offered two Environmental Science courses in grades 10 and 12. These courses contained units such as microbiology, environmental health hazards, and environmental air and water quality (Puk & Makin, 2006). Designated as "electives", these courses were offered by just over a quarter of Ontario schools (Cundiff, 1989). Under the Conservative government in 1998, the "stand-alone" Environmental Science courses, dedicated to EE, were removed from the curriculum (Puk &

Behm, 2003). Furthermore, the funding and infrastructure for outdoor education programs were cut (Kopar, 2013). In their stead, the Ministry made a decision to "infuse" environmental science content into other subjects such as biology, physics, chemistry, and geography (Puk & Makin, 2006). Described by many as a "patchwork approach" rather than a concrete plan, the new model did not sit well with the public (Puk & Behm, 2003; Environmental Education Ontario, 2003). Research which surveyed teachers on the coverage of the materials that were incorporated into other subjects from the cancelled Environmental Science courses indicated that very little time was spent in addressing environmental science topics or promoting ecological literacy in the curriculum (Puk & Behm, 2003).

In 2007, under the Liberal government, concerted efforts were made to improve the condition of EE in Ontario schools (Kopar, 2013). The Ministry of Education's Curriculum Council convened a Working Group on Environmental Education with the mandate "to analyze needs and research successful approaches to teaching and learning about the environment in elementary and secondary schools" (OME, 2007b). Chaired by Dr. Roberta Bondar, the panel published the aforementioned report in 2007, titled *Shaping Our Schools, Shaping Our Future* (OME, 2007b). This publication, which will be referred to in this article as "the Bondar Report," provided a new vision for reshaping EE in the province of Ontario.

The most significant change in the Bondar Report's recommendations was the integration of EE into all grade and subject curriculum (OME, 2009). This was a significant shift from stand-alone courses to an integrated approach where the responsibility for EE lies with all educators. In terms of curriculum, the report recommended the incorporation of the policy vision of EE into all elementary and secondary subject-specific curriculum documents and the inclusion of environment as an overarching principle in the curriculum. With regard to the secondary curriculum, the report recommended that the curriculum:

1. Ensure that all secondary students are exposed to EE though its substantial presence in compulsory grade 9 Geography, grade 9 and 10 Science, and grade 10 Civics expectations (in recognition that secondary students have reached a critical capacity to engage more deeply in environmental education);
2. Identify and support opportunities to engage students in environmental action projects within the current Civics course;
3. Ensure that secondary students have the opportunity to take at least one additional course with an environmental focus during their senior high school program (preferable in grade 11 to maintain continuity); and
4. Identify interdisciplinary links for environmental education at the secondary level so that schools can offer integrated programs of courses with an environmental theme.

Responding to the Bondar Report, the Ontario Ministry of Education released *Acting Today, Shaping Tomorrow: A Policy Framework for Environmental Education in Ontario Schools* (OME, 2009). This led to curriculum makers' adoption of an integrated approach in which they embedded environmental curriculum expectations in the majority of grades and subjects. The framework also called for the development of EE resource documents to aid in the policy's advancement (OME, 2007a, 2011). It recommended the inclusion of Environmental Plans and EE Professional Learning Committees (at the school and board levels) and teacher support (to be achieved though pre-service teacher programs, additional qualification courses, and PD opportunities). The policy framework explicitly recognizes the importance of place-based education, as well as the value of "increasing student engagement by fostering active participation in environmental projects and building links between schools and communities" (OME, 2009). Traditional EE programs often focus on fundamental ecological concepts or global issues of environmental sustainability. Accessing a different scale, place-based EE allows students to examine their communities and regions as complex, relevant areas of study; promoting future citizens who will engage in community-based environmental stewardship and innovation. Although not without criticism (e.g., Pardy, 2010), these initiatives were well received by the mainstream media and the general public.

More recently, a number of studies have undertaken the task of identifying the continuing challenges of implementing EE in Ontario schools (Tan and Pedretti, 2010; Steele, 2011; Pedretti et al., 2012; OISE, 2013; Chowdhury, 2015; Mnyusiwalla et al., 2016). These challenges include overcrowded curricula, lack of alignment between curriculum and existing ministry expectations, a disconnect between conventional science and EE pedagogies, low priority of environmental education in schools, lack of resources, access to the outdoors, the need to raise teacher awareness of the EE policy documents, a deficiency in professional development and pre-service education in environmental and outdoor education, and improved accountability measures for EE programming and policy implementation at all levels.

Place-Based EE

Place-based environmental education has been linked to environmental education since its inception. Woodhouse and Knapp (2000) describe the key components of place-based education as:

1. Emerging from the particular attributes of place;
2. Being inherently multidisciplinary;
3. Being inherently experiential;
4. Having a philosophical agenda that is broader than "learning to earn;" and
5. Connecting the individual, community, and environment.

Place-based EE shares the components described by Woodhouse and Knapp (2000) but focuses on environmental study. It benefits both students and their communities by empowering them to develop solutions to local problems (Sanders, 2003; Barratt & Hacking, 2011).

Using first-hand experience and out-of-classroom study are important aspects of place-based EE because they: give relevance to topics which could otherwise remain as second-hand learning; provide pupils with opportunities to talk about their own world; offer students the chance to look closely at aspects of a local environment; and introduce the idea of environmental responsibility (Palmer & Neal, 1994). More recent avenues of place-based EE are applying a critical lens to the environment and the factors that shape it (Gruenewald, 2003). Educators and researchers have shown the enormous benefits, especially in secondary schools, of using place-based education within the context of eco-justice (Lowenstein, Martusewicz, & Voelker, 2010) to empower marginalized groups and forge intergenerational partnerships (Mannion & Adey, 2011).

Ontario Curriculum and EE

In Ontario, the Ministry of Education is responsible for the development of curriculum policy and resource documents, while school boards and schools are responsible for implementing them. Curriculum policy documents "identify what students must know and be able to do at the end of every grade or course in every subject in Ontario publicly funded schools" (OME, 2014). They are organized by subject (e.g., The Arts, Science, Business Studies, Canadian and World Studies) and by grade level, with one document for grades 9/10 for each subject, and another for grades 11/12 for each subject. The documents are reviewed for content and alignment with government policies and frameworks before they are published and implemented in classrooms (OME, 2014).

The core of curriculum policy documents consist of: critical foundational information about the curriculum and how it connects to Ministry policies, programs, and priorities; and the curriculum expectations (overall and specific expectations), including the knowledge and skills that students are expected to demonstrate by the end of the grade (OME, 2014). A curriculum policy document incorporates a number of courses. Each course has several strands (formerly known as units). Strands are defined by a set of overall expectations which "describe in general terms the knowledge and skills that students are expected to demonstrate by the end of each course" (OME, 2014, Canadian and World Studies, p23). There are also specific expectations within each strand.

Specific expectations vary greatly in their nature, depending on the subject, course, and objective. They range from the very explicit to the abstract. Within a specific expectation it is not unusual to find examples and/or sample questions. The examples and sample questions provide clarification, guidance, and/or possible directions for study. It is often not possible to pursue all of the opportunities in the examples and sample questions—the specifics are for departments,

teachers and students to decide upon in their individual contexts. This can empower educators and students to take control of their own education and tailor lessons to their needs and interests. On the other hand, concepts that are important to the public can be covered superficially or ignored if they are not made prescriptive enough. With public education's competing priorities (i.e., literacy, numeracy, equity), prescription may be the only means to ensure their inclusion.

Method

The objective of this study is to assess the depth and breadth of the Ontario secondary school curriculum in place-based EE. Two methods are employed: a content analysis of curriculum expectations in compulsory courses to identify opportunities for place-based EE and assess their prescriptiveness; and an examination of enrollment in elective course offerings with substantial EE content.

Curriculum Review

To obtain a secondary school diploma in the province of Ontario, a student must amass a total of 30 credits, of which 18 must be in specific subjects and are referred to as "compulsory" (OME, 2014). Within the 18 compulsory credits, some course choices are available. Compulsory credits are taken by all Ontario secondary school diploma recipients and, as such, the content in the variety of courses available represents the basic environmental curriculum.

Guided by the Bondar Report (OME, 2007b), those credits with the greatest potential for EE content were identified as those in Geography, Science, and Civics. The various courses, known as course types (i.e., open, academic, applied and workplace), can be available at multiple levels (OME, 2014). In addition, the following credits were also included: Career Studies, since it is often delivered in conjunction with Civics, and Environmental Science (workplace course type), which can be counted as a second compulsory science credit following grade 9 academic, applied, or locally developed Science. Table 1 lists the courses identified for review.

As the pathways through the Ontario curriculum stem from two main course types in grade 9, they are often referred to as the academic and applied pathways by educators and policy makers. The difference in place-based EE curriculum content between course pathways was assessed in this study.

To review the compulsory courses identified for curriculum review, a qualitative content analysis was conducted. Curriculum expectations are qualitative and diverse in nature. Their focus ranges from a skills basis to a content basis, and their prescriptiveness varies as a result. Eight EE themes were identified, in part derived from Godfrey (2010): politics, sociodemographic, systems, planning, immigration and settlement, ecological, sustainability, and climate. For

Table 1: Compulsory Courses Identified for Curriculum Review

GRADE	COURSE TITLE	TYPE	COURSE CODE
9	Issues in Canadian Geography	Academic	CGC1D
9	Issues in Canadian Geography	Applied	CGC1P
10	Civics and Citizenship	Open (0.5 credits)	CHV2O
10	Career Studies	Open (0.5 credits)	GLC2O
9	Science	Academic	SNC1D
9	Science	Applied	SNC1P
10	Science	Academic	SNC2D
10	Science	Applied	SNC2P
*11	Environmental Science	Workplace	SVN3E

*Included because it can count as a second compulsory Science credit (prerequisite is grade 9 academic, applied, or locally developed Science).

each course listed in Table 1, curriculum expectations (overall and specific), their associated examples, and sample questions were screened for any content and associated key words related to these eight themes. Raw counts of the presence or absence of any place-based EE content in each curriculum expectation were determined. Prescriptive content, that is, content requiring the topic to be taught as opposed to providing an opportunity for it to be taught, was noted.

EE content was categorized by the scale of study: "Place-based EE" was identified if the scale of study was regional/municipal or smaller and specific to a student's own region; "indirect place-based EE" was identified if the scale of study was regional/municipal or smaller in general (i.e., it did not specify the student's own region); and "neither" was identified if the scale of study was not defined or was not at a regional/municipal or smaller scale. A key word search of the curriculum provided the means of differentiation. "Place-based EE" curriculum was identified by terms such as "your community," "their community," "area in which you live," "area in which they live," "your region," and "local." "Indirect place-based EE" content was identified by terms such as "a community," "communities," "a region," and "a city." Furthermore, any direct expectations with place-based EE content that was only present in the examples and sample questions were treated as "indirect place-based EE." The purpose of examples and sample questions is to suggest options for the expectation. In other words, they provide possible avenues for study but do not require it.

Any expectation that prescribed field study was also identified. To be classified as requiring field study, the expectation did not have to occur outdoors or even off school property, but it was to take place outside of the classroom (e.g., conducting a school waste inventory to assess recycling practices in the school).

Finally, curriculum expectations that are participatory with action outcomes (i.e., that involve a real-world issue and require a product or action that is useful outside the classroom) were identified. This could take the form of community or school action (e.g., the greening of school grounds), writing letters to politicians regarding environmental concerns, and creating local land use improvement plans.

Enrollment in EE Elective Courses and Course Offerings

The province of Ontario has published secondary curriculum for hundreds of courses in various subjects, grades, and types. The majority of these courses are designated as electives. In this study, course titles were reviewed for potential links to any of the eight EE themes, and a list of relevant courses was compiled. Student enrollment and course offering data for these courses were obtained from the Ministry of Education for the 2012-2013 school year (the most recent year of available data). The Ontario School Information System was used to provide context to these values by providing data on the total number of public secondary schools in Ontario and the number of students registered in each grade (9-12) for the 2012 school year (OSIS, 2013).

Results and Discussion

Curriculum Review

Of the 675 expectations, 124 contained themes related to EE (i.e. 18.4% of expectations). These are not stand-alone EE courses (with one exception); nonetheless, the frequency with which these themes are present is substantial. This aligns well with the Bondar Report's curriculum recommendations to "Ensure that all secondary students are exposed to EE though its substantial presence in compulsory grade 9 Geography, grade 9 and 10 Science, and grade 10 Civics expectations" (OME, 2007b, p15). Of the 675 expectations, only 33 contained place-based EE content (i.e., 4.9% of expectations). Table 2 provides a summary of the 675 expectations, listing raw counts by course.

Considering the expectations by grade, place-based EE content is more prevalent in grade 9, with 3.0% of course expectations, than it is in grade 10 (1.2%). The importance of Issues in Canadian Geography (CGC1D/CGC1P) in contributing to EE in grade 9 is clear—CGC1D and CGC1P had the highest proportion of place-based EE expectations.

Table 2: Place-based EE Content in Compulsory Courses

Grade	Course Code	Course Title	Type	# of expectations (n)	# of expectations containing EE themes (n)	% of course expectations containing EE themes	Expectations related to place-based EE (n)	Prescribed expectations related to place-based EE (n)
9	CGC1D	Issues in Canadian Geography	Academic	70	31	44	4	0
9	CGC1P	Issues in Canadian Geography	Applied	68	28	41	14	8
10	CHV2O	Civics and Citizenship	Open half credit	45	12	27	4	0
10	GLC2O	Career Studies	Open half credit	42	2	4.8	2	0
9	SNC1D	Science	Academic	90	11	12	0	0
9	SNC1P	Science	Applied	86	13	15	2	2
10	SNC2D	Science	Academic	95	5	5.3	2	1
10	SNC2P	Science	Applied	89	1	1.1	0	0
11	SVN3E	Environmental Science*	Workplace	90	21	23	5	4
	TOTALS			675	124	100	33	15
	% of TOTAL (675)			100	18.4		4.9	2.2

*Included because it can count as a second compulsory Science credit (prerequisite is grade 9 academic, applied, or locally developed Science).

With respect to theme distribution, summarized in Table 3, most of the 124 EE expectations fall under the category of Ecological and Planning. Most expectations are not multidisciplinary, falling only under one theme. For example, the expectations in the Sciences focused on Ecology. Although Issues in Canadian Geography (CGC1D/CGC1P) is more multidisciplinary, covering multiple themes, each subject does tend towards focusing on a single or narrow set of EE themes.

Table 3: EE Content by Theme in Compulsory Courses

Grade	Course Code Code	Course Title	Type	# of expectations containing EE themes (n)	Number of expectations related to:							
					Planning	Ecology	Sustainability	Climate	Politics	Immigration and Settlement	Systems	Socio-demographic
9	CGC1D	Issues in Canadian Geography	Academic	31	13	3	1	3	0	8	12	4
9	CGC1P	Issues in Canadian Geography	Applied	28	13	5	1	1	0	5	4	7
10	CHV2O	Civics and Citizenship	Open	12	5	0	4	0	5	0	1	0
10	GLC2O	Career Studies	Open	2	0	0	2	0	0	0	0	0
9	SNC1D	Science	Academic	11	1	11	0	0	1	0	0	0
9	SNC1P	Science	Applied	13	0	12	1	0	0	0	0	0
10	SNC2D	Science	Academic	5	1	3	0	1	1	1	0	0
10	SNC2P	Science	Applied	1	0	1	1	0	0	0	0	0
11	SVN3E	Environmental Science	Workplace	21	0	19	0	0	2	0	1	0
		TOTALS		124	33	54	10	5	9	14	18	11
		% of 124		100	26.6	43.5	8.1	4.0	7.3	11.3	14.5	8.9

Concerns have been expressed by educators and administrators regarding "academic students" being more involved than "applied students" in EE (Mnyusiwalla et al., 2016). Although these may have been partly rooted in programming differences between pathways rather than in curriculum differences, they are not supported by the data. Comparing academic and applied courses of the same grade and subject (e.g., Science SNC1D and Science SNC1P), there is little difference between the major grade 9 and 10 pathways. Overall, 18% of course expectations in the academic courses and 17% in the applied courses contain EE content. Only if a student opted to take Environmental Science SVN3E instead of Science SNC2D or Science SNC2P as their second compulsory science credit would she or he have more exposure to EE. As will be seen, few students enroll in Environmental Science (SVN3E).

Table 2 (above) includes information concerning the numbers of place-based expectations in which the content is prescriptive. Of the 33 curriculum expectations related to place-based EE, only 15 were prescribed. Most of these are in Issues in Canadian Geography (CGC1P). It is interesting to note that no prescribed expectations were found in the academic stream, Issues in Canadian Geography (CGC1D). Applied courses are designed to be more "practical," "concrete," and "hands-on," and, because place-based EE is rooted in the familiar and accessible (OME, 2014), they make greater use of it. Academic courses, on the other hand, tend to focus more on theory and abstract concepts (OME, 2014). The only other course with significant prescribed place-based content was Environmental Science (SVN3E), where the majority of expectations were related to Ecology. Prescriptive expectations related to place-based EE are essentially absent in grade 10 courses.

Very few place-based expectations are located in the Science curriculum. This may reflect the juxtaposition between conventional science and EE pedagogies observed by Steele (2011). Some of the impediments to place-based EE that she raises include overemphasis on "the scientific knowledge base that is deemed necessary for students" rather than application of those skills to a real-life context, and "the influence of textbooks" which are based on a provincially standardized curriculum and tend not to include community specific study (Steele, 2011).

Curriculum Expectations Involving Field Study and Action Outcomes

An analysis was also undertaken of expectations that prescribed field study. Only six were found in the curriculum—five of which were in Environmental Science (SVN3E). These expectations required students to conduct field studies on the water quality, soil quality, and biodiversity of their home or school, as well as to conduct a waste audit of the same. One expectation was also found in Science (SNC1P), which required students to graph and interpret electricity consumption data from meters at home or in the community.

Participatory expectations with action outcomes were even rarer in the compulsory curriculum, with only two—in Civics and Citizenship (CHV2O)—providing students with the possible opportunity to communicate their local environmental ideas or data to an intended audience. These two expectations listed "environment" as one of many areas of study. Curriculum recommendation #17 of the Bondar Report makes the suggestion to "Identify and support opportunities to engage students in environmental action projects within the current Civics course" (OME, 2007b, p15). There are currently limited opportunities within the Civics and Citizenship (CHV2O) course for this kind of expansion.

Action competence" (Barratt & Hacking, 2011), which requires experience and knowledge, is an important goal of successful EE. Part of this experience should be acquired in secondary schools if students are to become active citizens with the tools necessary to enact positive change in their environment. Local field study and action projects can also be viewed as measures of community involvement. Community connections are vital to "community health and development" and "student well-being" (Sanders, 2003, p. 162). For many, these can be unique and rewarding experiences that deepen connection to the environment. In the province of Ontario, such field studies and action projects are sparsely prescribed in the compulsory curriculum.

Enrollment in EE Elective Courses and Course Availability

Statistics on course availability and enrollment beyond the compulsory courses can provide some insight into the effectiveness of EE progression and integration into the curriculum. The Bondar Report recommended that students be offered opportunities to pursue EE in the senior grades (11 and 12) to provide continuity with material introduced in earlier grades and to reinforce the importance of EE (OME, 2007b).

Table 4: Secondary Enrollment 2012-2013 (OSIS, 2013)

Grade	Number of Students in Public Schools	Number of Students in Roman Catholic Schools	Total
Grade 9*	100,856	49,341	150,197
Grade 10	103,040	50,318	153,358
Grade 11	108,061	51,849	159,910
Grade 12	153,408	67,724	221,132
Total	638,220	219,232	684,597

* Data include students designated as "Pre-grade 9".
Data include public and Roman Catholic schools and school authorities. Data exclude: private schools; publicly funded hospital and provincial schools; care, treatment, and correctional facilities; summer, night, and adult continuing education day schools. Data are based on headcount of students.

Table 4 provides a basis for reference for secondary enrollment by grade in the 2012-2013 school year. As of 2012-2013, there were 913 secondary schools in the province of Ontario, with 684,597 students enrolled (OSIS, 2013). Tables 5-7 provide course availability and enrollment data, grouped by grade, for those elective courses containing themes related to EE.

Table 5 provides a summary of course availability and enrollment for grade 9 and 10 electives related to EE. All of the electives courses offered in grades 9 and 10 are open, meaning that they are appropriate for a broad range of students and do not have prerequisites.

Table 5: Grade 9 and 10 Course Availability and Enrollment

Course Code	Course Name	Grade	Course Type	Place-Based EE Themes	# of Schools Offering Elective	% of Schools Offering Elective	# of Students Taking Course	% of Students Taking Course*
HFN1O	Food and Nutrition	9	Open	Planning (regional food production, urban agriculture) Climate (regional food production) Ecological (regional food production) Systems (food distribution)	170	18.6	6686	4.5
HFN2O	Food and Nutrition	10	Open	Planning (regional food production, urban agriculture) Climate (regional food production) Ecological (regional food production) Systems (food distribution)	503	55.1	24963	16.3
THJ2O	Green Industries	10	Open	Politics (green incentives) Sustainability (resource availability)	68	7.4	1254	0.8
TTJ2O	Transportation Technology	10	Open	Planning (land use) Systems (transportation)	534	58.5	17403	11.3

* % of students in grade

There is little opportunity to take electives at the grade 9 level. Most students have room for only one elective course in this grade because, in addition to compulsory courses in Mathematics, English, Science, and Geography, they choose to fulfill their Arts, Health and Physical Education, and French as a Second Language requirements. The only elective course identified as containing EE themes is Food and Nutrition (HFN1O). Although 19% of schools offered the course, only 4.5% of grade 9 students province-wide were registered in it.

In grade 10, there is a greater selection of courses with EE themes. If Arts, Health and Physical Education, and French as a Second Language requirements are met in grade 9, the only compulsory courses are History, Civics and Citizenship (0.5 credits), Careers (0.5 credits), Mathematics, English and Science. In grade 10, a majority of schools offer Food and Nutrition (HFN2O) and Transportation Technology (TTJ2O), although a relatively small proportion of students took these courses. Green Industries (THJ2O) contains the most direct link to EE. However, only 7.4% of secondary schools in Ontario offered the course, and a very small proportion of students were enrolled (0.8% province-wide).

Many reasons can contribute to poor availability of a course. These include a lack of expertise among teachers, a lack of interest by students, timetabling conflicts, poor perceived need for future endeavours, or a combination of these factors. For any one course, the causes may vary from school to school. With more place-based EE found in the compulsory courses in grade 9 than in grade 10, the few options among the grade 10 electives for EE content are significant.

In grade 11, students must think more carefully about their "exit plan". There are four major destinations that students pursue: university, college, skilled trade and apprenticeship programs, and workplace. Courses exist in every pathway for students interested in EE in grade 11 (Table 6). This aligns with the Bondar Report curriculum recommendation to "Ensure that secondary students have the opportunity to take at least one additional course with an environmental focus during their high school program (preferable in grade 11 to maintain continuity)" (OME, 2007b). However, with the exception of Understanding Canadian Law (CLU3M) and Travel and Tourism: A Geographic Perspective (CGG3O), the proportion of schools (<50%) offering these courses is low. Notably, Environmental Science (SVN3E), which can also count as a student's second compulsory science requirement, and Environmental Science (SVN3M) are offered in less than half of schools (and, province-wide, are taken by a total of 6.6% of students). Considering the attention given to them in provincial policy, enrollment appears to be low.

Table 6: Grade 11 Course Availability and Enrollment

Course Code	Course Name	Grade	Course Type	Place-Based EE Themes	# of Schools Offering Elective	% of Schools Offering Elective	# of Students Taking Course	% of Students Taking Course*
HLS3O	Housing and Home Design	11	Open	Planning (land use and zoning) Sociogeographic (population distribution) Politics (affordable housing) Sustainability (materials, energy)	187	20.5	2047	1.3
SVN3E†	Environmental Science	11	Workplace Preparation	Ecological (pollution, habitat restoration and protection) Politics (responsibilities, jurisdictions)	390	42.7	5827	3.6
SVN3M	Environmental Science	11	University/ College Preparation	Ecological (pollution, habitat restoration and protection) Politics (responsibilities, jurisdictions)	263	28.8	4760	3.0
CLU3E	Understanding Canadian Law in Everyday Life	11	Workplace Preparation	Politics (environmental responsibilities, governance)	167	18.3	2047	1.3
CLU3M	Understanding Canadian Law	11	University/ College Preparation	Politics (environmental responsibilities, governance)	722	79.1	32427	20.3
CPC3O	Politics in Action: Making Change	11	Open	Politics (environmental responsibilities, governance) Sustainability (community action)	12	1.3	144	0.1

CGD3M	Regional Geography	11	University/ College Preparation	Planning (land use, zoning) Sociogeographic (population distribution) Immigration and Settlement (growth, access to resources)	5	0.5	130	0.1
CHT3O	World History since 1900: Global and Regional Interactions	11	Open	Planning (land use, zoning) Sociogeographic (population distribution) Immigration and Settlement (growth, access to resources) Ecological (pollution, habitats)	131	14.3	16263	10.2
CGG3O	Travel and Tourism: A Geographic Perspective	11	Open	Sociogeographic (population distribution) Climate (characteristics of region) Systems (accessibility)	565	61.8	14523	9.1

* % of students in grade

† Not considered to be a true elective because it can count as the second compulsory science requirement (with grade 9 academic, applied, or locally developed science as a prerequisite).

The other courses—Housing and Home Design, (HLS3O), Understanding Canadian Law (CLU3E), and World History since 1900: Global and Regional Interactions (CHT3O)—are offered at best by a modest number of schools. In two cases—Politics in Action (CPC3O) and Regional Geography (CGD3M)—fewer than 10 % of schools offer these options and less than 1 % of students enroll.

In grade 12, courses exist in every pathway; however, there is only one course offered at the workplace level (Table 7). At least 25 % of schools offer Environment and Resource Management CGR4M), World Issues: A Geographic Analysis (CGW4U), Food and Nutrition Sciences (HFA4M), and Challenge and Change in Society (HSB4M). The proportion of grade 12 students taking these courses range from 2.6 % to 11 %. The remaining courses, Living in a Sustainable World (CGR4E), Spatial Technologies, (CGO4M), World Geography: Urban

Patterns and Interactions (CGU4C), and World Geography: Human Patterns and Interactions (CGU4U), are offered in less than 5 % of schools and enrollment numbers show that less than 1 % of students enroll in each. The latter three courses have clear links to EE. Living in a Sustainable World (CGR4E) is the only workplace elective containing EE themes that is available in grade 12.

Table 7: Grade 12 Course Availability and Enrollment

Course Code	Course Name	Grade	Course Type	Place-Based EE Themes	# of Schools Offering Elective	% of Schools Offering Elective	# of Students Taking Course	% of Students Taking Course*
CGO4M	Spatial Technologies in Action	12	University/College Preparation	Planning (land use and zoning) Sociogeographic (population distribution) Immigration and Settlement (growth, access to resources)	21	2.3	409	0.2
CGR4E	Living in a Sustainable World	12	Workplace Preparation	Planning (land use) Systems (linear vs. cyclical) Ecological (pollution, habitat protection) Politics (government incentives and policy)	62	6.8	398	0.2
CGR4M	Environment and Resource Management	12	University/College Preparation	Systems (materials, energy) Planning (land use) Politics (policy, jurisdiction) Sustainability (community action)	248	27.1	5661	2.6
CGW4U	World Issues: A Geographic Analysis	12	University Preparation	Planning (land use, zoning) Sociogeographic (population distribution) Immigration and Settlement (growth, access to resources) Politics (governance)	558	61.1	16263	7.4

CGU4C	World Geography: Urban Patterns and Interactions	12	College Prepara-tion	Planning (land use) Systems (linear vs. cyclical) Ecological (pollution, habitat protection) Politics (government incentives and policy) Sociogeographic (population distribution)	33	3.6	499	0.2
CGU4U	World Geography: Human Patterns and Interactions	12	University Prepara-tion	Planning (land use) Systems (linear vs. cyclical) Ecological (pollution, habitat protection) Politics (government incentives and policy) Sociogeographic (population distribution)	44	4.8	1049	0.5
HFA4M	Food and Nutrition Sciences	12	University/ College Prepara-tion	Planning (regional food production, urban agriculture) Climate (regional food production) Ecological (regional food production) Systems (food distribution)	369	40.4	16972	7.7
HSB4M	Challenge and Change in Society	12	University/ College Prepara-tion	Planning (land use, zoning) Sociogeographic (population distribution) Immigration and Settlement (growth, access to resources) Politics (governance)	533	58	24816	11.2

* % of students in grade

Conclusions

The curriculum review of required courses shows 4.9 % of the 675 expectations contain some place-based EE content. The frequency with which these themes are present is substantial. However, only a small proportion of these expecta-tions are prescribed: Much place-based EE content is found in the optional sec-tions (i.e., examples, sample questions) of an expectation. As such, the inclusion of EE content needs to overcome the barriers of an overcrowded curriculum, apathy, and lack of resources, as well as the feelings of unpreparedness and lack of EE policy awareness felt by educators (Tan & Pedretti, 2010; Chowdhury, 2015, Mnyusiwalla et al., 2016).

Analysis of grade 9 and 10 electives highlighted only four course options for continuing EE studies beyond those in the compulsory courses. In grades 11 and 12, options are greater. However, the proportion of schools offering these courses varies from high (i.e., up to 79 % of schools) to very low (i.e., 0.5 % of schools). Opportunities to continue study exist in every grade and pathway. However, the enrollment in elective courses is generally very low. This either means that students do not see a need to take these courses (e.g., they are not a prerequisite for post-secondary studies), are not interested in their content, experience timetabling conflicts, or do not have these courses offered at their school. Despite the Ministry of Education's focus on promoting EE, inconsistent continuity in senior grades undermines its perceived importance.

The number of expectations involving field study (6 of 675 expectations) and action outcomes (2 of 675 expectations) is obviously very limited. This is surprising given that those are a major focus of the *Standards for Environmental Education in the Curriculum* (OME, 2008).

The public criticized the "patchwork approach" to EE, introduced in 1998, for its lack of time spent in covering environmental science topics and promoting ecological literacy (Puk & Behm, 2003). Recent policy changes have placed EE at the forefront but despite the attention given to it, it does not yet appear well-positioned in the Ontario curriculum. The Bondar Report only recommended a "substantial presence in compulsory grade 9 Geography, grade 9 and 10 Science, and grade 10 Civics expectations" (OME, 2007b). Senior grades see even less commitment to EE in the Bondar Report, which ensures only that secondary students "have the opportunity" to take "at least one course" with an EE focus (OME, 2007b). However, poor enrollment in senior electives fractures place-based EE's progression in the latter part of secondary school. Teachers and administrators agreed that the Bondar Report's vision of EE would be better translated if EE curriculum, programming, initiatives, and community partnerships were more explicitly worded, better promoted, or consistently mandated (Mnyusiwalla et al., 2016). Within policy documents, the goals of place-based EE are often stated in such general terms as to become difficult to use as a guide for program development. Furthermore, curriculum expectations are not worded strongly enough to demand instruction of EE concepts. There remains an identifiable need to close the gap between EE policy objectives and its central inclusion in relevant curriculum.

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Writing Landscape

Vanessa Dion Fletcher

This work began in my mouth, with my voice, and moved down to my feet, and then to the earth. My art practice explores themes of communication, identity, and the body. My current trajectory is rooted in language, (mis)communications, and failures to communicate. This work takes the form of parabolas investigating shape, as an interment for communication both formally and conceptually. More recently I have been focussing on ideas of fluency and understanding in the context of my Potawatomi and Lenape ancestry. Having no direct access to my ancestral Aboriginal languages has inspired me to explore the notion of communication without words.

I use intaglio and lithography—both traditional European methods of printmaking—but I adapt these techniques to make them more relevant to my contemporary Indigenous existence. One of these adaptations is the method of marking copper intaglio plates. In this technique, the plate is typically marked through a process of either acid biting or making fine scratches with a metal tool, both producing a detailed line drawing. For my project, Writing Landscape, I developed a technique of marking copper plates by wearing them on my feet and walking. It is a kind of writing where my body and the topography of the land over which I walk are both author and subject.

My project took place in three locations: Toronto, Ontario; Thamesville, Ontario; and Pangnirtung, Nunavut. I chose these locations specifically for their historical and contemporary significance to myself. At each location, I began by walking around without the plates on my feet, getting a sense of the topography, and contemplating my connection to that particular place. Conceptually, I considered the place, my relationship to it, and why I wanted to communicate with and record my conversation by creating an image of the land. As part of my technique, I considered the different surfaces, contemplating how various topographies affected the way that I moved. I also examined how weather influenced my movement. In each location, I walked for several kilometres, setting up the shot by walking away from the camera and then returning to it. The result of this pattern of movement away from and towards to the viewer generates a kind of ebb and flow that creates a sense of both coming and going, a cyclical effect where the question remains, "Am I walking away from the viewer, or towards the horizon?" Am I returning to the viewer, or am I leaving where I came from? In these unanswered questions, I am always moving. It is the movement in this work that creates the marks. In Writing Landscape, I am taking steps to record and listen to the land that I come from, the land that supports me, and the land that inspires me. I think this work is an affirmation that I am not fixed to the past or the future, but instead am able to adapt

to—and create new relationships and connections with—new landscapes.

Each location in Writing Landscape has a different purpose and significance, but they are all about the relationship between myself and the land, and between myself and the water. Although not my original intention, the boundaries that the water created with the land presented me with focal points. Walking along the shorelines not only provided a path for me to follow but an in-between space to occupy as well.

My choice of Toronto as a location for my art practice was related to returning to and renewing an ongoing relationship with the land. It is both the place where I currently live and the place where I have spent my adult life. Walking along the shore of Ashbriges Bay made me feel as though I was renewing an ongoing relationship with this land. It is the land where I now feel at home, and I wanted to reaffirm that relationship.

In the case of Thamesville, the experience was one of establishing a relationship. My grandmother's family left Moravian No. 47 Indian Reserve when she was nine years old. Creating this project was my first time visiting the reserve. I ended up spending most of my visit walking along the Thames River, remembering my grandmother's story of pulling groceries on a sled along that same river. Where does the river begin, and where does it end? What drew grandma away, and what brought me back?

While working on the project, I was fortunate to be able to visit a friend in Pangnirtung, Nunavut, a place I first visited as part of my undergraduate education program in 2009, and have been able to return yearly since then. The current visit, and my project of walking on that land each offered opportunities for a renewal of friendships, as well as for feeling a sense of solidarity with Indigenous people who struggle with their land in ways that that appear different from my own struggles but are actually quite similar. These similarities are manifested in the earth-etched plates. Because the moss and lichen that grow on the tundra are so soft, I once again ended up along the banks of the river, where under the pressure of my feet, the rocks and pebbles would scratch and impress themselves onto the plates.

In each case, the project is about establishing, repeating, or renewing a relationship with the land and the place. The process of the walking was important: It provided the physical experience needed for this art project. During it, I felt the cold or warmth of the land conducted through the copper. Walking along the water's edge, I would immediately feel the chill of wet ground or, just as quickly, the warmth of dry ground created by sun-bathed rocks and sand. It was satisfying hearing the scraping and crunching as I crossed the rocks.

This physicality was revealed in the printing process. Once all the plates had been thoroughly scratched, I began printing the images. The plates themselves are compelling as objects. However, once printed, the images that are produced reveal the intricacies that have been pressed into the plate. Seemingly insignificant tiny stones and grains of sand imprint themselves onto the

plate and become the printed images. Fine scratches, dents, and cracks where the plate splits between the force of my body and the force of the land appear on the paper.

I have been influenced by several senior artists in the development of this project, most significantly by the work of Greg Staats. Staats provided both conceptual and technical guidance. His video and photography (http://www. ago.net/greg-staats) have inspired and informed my project. His exploration of recording, language, and memory within the restorative aesthetic of "Condolence" has informed the ways in which I engage with similar themes in my own work. In his (2011) artist talk at Articule in Montréal, Staats discussed the photographs in Condolence:

> This series represents a friendship with the landscape that I was trying to express, those boreal markers are there, they are still there for me to return to as a place to be welcomed. That was the beginning of my connection to the landscape, my own personal landscape that I could find solace in. (Staats & Langford, 2011)

In Writing Landscape, instead of photographing the markers through the creation of the prints, I created my own markers. I made my own personal land-scape, and found reassurance in myself and my art practice, and in the process of recording the landscape as a marker.

Writing Landscape is a series of images that were created between my body and the land. As previously stated, I began the project thinking about language. Writing Landscape is a project where I would be simultaneously "writing" the land by recording it, and writing a place for myself on the land. I am unsatis-fied by my own experience using written and spoken language. This is because I have no direct access to my ancestral languages and also because I have a disability that severely affects my use of written language. As such, I feel I fall short when I attempt to employ them as forms of communication. As Staats observes, the land is a place to find solace, filled with mnemonics and triggers to remember and create who we are.

Video documentation of my process for Writing Landscape is available at https://vimeo.com/57042293

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A version of this Statement was published in *West Coast Line* 2012.

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Greenall Gough, A. (1993). *Founders in environmental education*. Geelong: Deakin University Press.
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