Planning at the Interface of Nature and Culture: Theory, Methods, and Identification of Cultural Landscapes in the Townships of Woolwich and Wellesley

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A thesis

presented to the University of Waterloo

In fulfillment of the

thesis requirement for the degree of

Master of Environmental Studies

in

Planning

Waterloo, Ontario, Canada, 2018

Authors Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners. I understand that my thesis may be made electronically available to the public.

Abstract

Planning for cultural landscapes requires the inclusion of the public in the decision-making process. Yet, how to include the public in a meaningful way remains poorly understood, especially for rural areas. This study explores the basis for public participation in cultural landscape planning through a critical review of both cultural landscape and communicative planning theory to consider how these two bodies of theory may function together to guide participatory cultural landscape planning. The study also includes a review of cultural landscape conservation research and practice in the province of Ontario, Canada, as well as in Europe. It is found that that, despite policy stipulating that the public ought to be involved, cultural landscape research and practice has only begun to address the challenges of public participation. Cultural ecosystem services (CES) literature, however, does address similar challenges in the context of ecosystem planning.

In order to assess the applicability of CES methods for the identification of cultural landscapes, four participatory methods informed by that literature were used to identify candidate cultural heritage landscapes in the Townships of Woolwich and Wellesley, in southwestern Ontario, Canada. Through the use of interviews, focus groups, photo-voice, and a web-based survey, each with associated mapping exercises, 122 participants collaborated to identify areas of shared cultural heritage value. We found that valued areas were not spread randomly across the landscape, but instead were aggregated around certain landscape features. After community members participated in a method, they were asked to complete an evaluation survey. Through that instrument, it was found that focus groups had the most favourable experiences of social learning and stated behavioural changes, while the web-based survey was most favourably rated for application in other planning initiatives. Although each of the methods had its merits, it was found that interviews were indispensable for gaining an understanding of what it means to dwell in the landscape. Through that method, cultural and individual barriers to participatory cultural landscape identification were identified, and, moreover, it provided the information to enable consideration of the negative potentialities of designating cultural landscapes for unique communities that reside in or have a stake in the study area.

Acknowledgements

There are many people who made this work possible, but none more so than those nearest and dearest. Gummy, Mum, Dad, Jennifer, Mathew, Sarah, Laura, Hannah, and Amy, your support and inspiration is in this work – if you decide to read it, you will find there something of yourselves. I would not be where I am today without your unwavering love, which defies a written acknowledgement.

Stephen Hill, Robert Shipley, and Michael Drescher, thank you for the encouragement and the opportunities that you have provided me. I hope that one day I may pay it forward. Robert Feick, Shanqi Zhang, and Netzach Straker, thank you for all your help in designing the web-based aspects of this study. To the members of the cultural heritage landscape steering committee, thank you for all your guidance and support throughout this study. Rebecca Koroll, thanks for your diligent efforts in implementing this project. I would also like to thank the Region of Waterloo, the Township of Wellesley, the Township of Woolwich and Mitacs for your support and interest in identifying candidate cultural heritage landscapes. Finally, to all those who participated in this study, thank you, without you this project would not have been possible.

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Chapter I: Introduction

Fractures are perceptible in the dichotomy between "natural" and "cultural" in heritage planning. The adoption of "cultural landscape" planning is one policy arena where such fractures are evident (Rössler, 2002). There has also been a shift in the emphasis of heritage planning more generally; one towards a phenomenological methodology that privileges first-hand accounts of what it means to (re)create and dwell in and with tangible and intangible heritage resources (Kalman, 2014: 209). Yet, with policies that blur dichotomies and normative statements of inclusivity for those who dwell in the landscape, landscape research and practice are being left behind (Conrad, Christie & Fazey, 2011).

In the early 1990s, after a concerted effort by the International Union for the Conservation of Nature (IUCN) to have protected landscapes recognized in international policy, the United Nations Education, Scientific and Cultural Organization (UNESCO) added "cultural landscapes" to the World Heritage List in 1992 (Jacques, 1995). The *Operational Guidelines for the Implementation of the World Heritage Convention* defines cultural landscapes as properties that "represent the combined works of nature and of man" that are "illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal" (UNESCO, 2016: Article 2. S. 47). UNESCO has three categories of cultural landscape: designed or created intentionally by humans, such as a garden; organically evolving, which can include both relic and continuing landscapes, and; associative cultural landscapes which are the result of strong spiritual, cultural, or religious association with the natural environment. In these categories, especially that of associative

cultural landscapes, a clear distinction between natural and cultural heritage is challenging to identify.

The relatively late addition of the cultural landscapes category to the 1972 World Heritage Convention appears to have resulted from a reworking of the definition of "heritage" in an effort to be more representative of "universal value" and to reflect changes to the meanings of cultural and natural heritage (Harrison, 2013), as well as from a push from global ecologists at IUCN (Jacques, 1995). UNESCO's categories are not discrete, and a landscape may be part of all categories to various degrees. The definition of cultural landscapes developed at UNESCO continues to influence and shape policy at various political levels. The International Council on Monuments and Sites (ICOMOS) as well as the IUCN both use the definition, and at the national level in Canada, the definition is in the *Standards and Guidelines for the Conservation of Historic Places in Canada.*

An alternative definition of cultural landscapes in multinational policy is that presented in the European Landscape Convention (ELC) under the Council of Europe. The Convention was signed in 2000 and came into force in 2004, today having over 35 signatory countries. The ELC defines a landscape as "an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors" (ELC, 2000: Article 1a). The ELC's definition is complemented by the explicit role for the public in identifying and conserving cultural landscapes. Article 5c of the Convention requires each party to "establish procedures for the participation of the general public, local and regional authorities, and other parties with an interest in the definition and implementation of the landscape polices." In the ELC, then, not

only is the dichotomy between "natural" and "cultural" blurred in their definition of cultural landscapes as an area "perceived by people" that resulted from "natural *and/or* human factors" (emphasis added), but so too is there an explicit role for the public in the text of the convention.

Policy that necessitates the inclusion of the general public and other interested parties in the development and implementation of landscape polices is not exclusive to the ELC. In Canada, the Province of Ontario – the location of the current study – an additional proviso is added to the term "cultural landscape" with the adjunct "heritage." The 2014 Provincial Policy Statement (PPS), which established the province's policies on land use planning matters, defines a "cultural heritage landscape" (CHL) as:

> a defined geographical area that may have been modified by human activity and is identified as having cultural heritage value or interest by a community, including an Aboriginal community. The area may involve features such as structures, spaces, archaeological sites or natural elements that are valued together for their interrelationship, meaning or association.
>
> (PPS, 2014: S. 6)

In this definition, a CHL "*may* have been modified by human activity," meaning that built heritage may or may not be present. The distinction between nature and culture is further dissolved in the provision of both "natural areas" and "industrial complexes" as examples of CHLs (PPS, 2014: S.6). The role for the public is implicit in the definition, where CHLs are "*identified* as having cultural heritage value or interest *by* a community, including an Aboriginal community." The participatory nature implicit in the 2014 PPS is further strengthened by

examining the evolution of the definition. In 2005, CHLs were defined as areas that *have* been modified by human activity and [are] valued by a community. In 2014, the PPS positions communities as the identifiers of value, while the 2005 definition suggests that a determination of community value in the absence of a participatory approach could suffice.

Rather than taking policy statements regarding public participation in landscape planning at face value, this research seeks to critically explore the rationales, opportunities, and limitations of participatory cultural landscape planning, and to test four methods in the identification of candidate CHLs in the townships of Wellelsey and Woolwich, in southern Ontario. We begin by exploring landscape theory with an examination of iterations of the meaning and significance of the terms "culture," "landscape," and "cultural landscape" in cultural geography and beyond. Then, we turn to a discussion on communicative planning theory before considering where these two bodies of theory intersect, and how they may direct the practice of participatory cultural landscape planning. After examining the theoretical impetuses for participatory cultural landscape planning, we survey methods used in practice to find that, while cultural landscape planning does not appear to be occupied with the *identification* of cultural landscapes through public participation, a related field of study, that of ecosystems services, does use participatory instruments to identify places of shared cultural value, albeit through a discourse of "ecosystem" rather than "landscape."

Using participatory mapping instruments refined in cultural ecosystem services literature, we select and test four methods for the identification of candidate CHLs in the two northern townships in the Region of Waterloo. The methods were designed with geographically explicit

elements built in, so that geographic information software (GIS) could be used to visually display areas of convergence between participants. Three of the methods – photo-voice, a web-based survey, and focus groups – were evaluated by participants to reveal their perspectives of engaging with the instrument, as well as suggestions they may have for improving the method for future applications. The fourth method, semi-structured interviews and mapping exercises, were not evaluated by participants as that method has been rigorously tested in the literature (Chapter III). In addition to collecting geographically explicit data for the identification of candidate CHLs, interviews sought to uncover the meanings, stories, defeats, and victories of those entangled in the creation and recreation of tangible and intangible landscape features. Using that data, we critically explore some of the negative potentialities of CHL preservation and uncover some of the barriers and limitations to implementing participatory CHL identification in our study area.

Thus, three interrelated research questions were asked in this research. First, we sought to determine if candidate CHLs could be identified through public participation. Second, we explored and evaluated tools for participatory engagement that might function in conjunction with interviews for the identification of CHLs, and finally, we sought to develop an understanding of the shared and contested values that can exist in a landscape to critically reflect on the practice of CHL planning in the townships of Woolwich and Wellesley specifically, and in cultural landscape planning generally. However, before delving into these questions, we look to why we ought to take a participatory approach to cultural landscape planning by exploring the relationships between cultural landscape and communicative planning theories and considering what we may achieve by taking a participatory approach to cultural landscape identification.

Chapter II:
Cultural Landscape and Planning Theory

The practice of cultural landscape planning merges the ideas of cultural landscape into planning, and vice versa. If planning and cultural landscape are unified in practice, they ought to be examined for the prospect of unification in their theories, as well. This section of the literature review presents an abridged overview of the two streams of thought, highlighting some of the totemic contributors and presenting some of their ideas before positing that there are areas where the two bodies of work converge, and that these areas of convergence can be instructive for cultural landscape planning. The breadth and depth of both cultural landscape theory and planning theory defy easy summary. Detailed histories on the streams of thought germane to each discipline can be found in numerous books and peer-reviewed articles. Here, the aim is to provide a sufficient overview of the theoretical basis of "cultural landscape" and "communicative planning" so that we may begin to explore how they could function together to explain and direct the practice of cultural landscape planning.

This Chapter is structured in three parts. Part I presents a selected history of the terms "landscape" and "cultural landscape," focusing on the terms as used by cultural geographers. Although cultural landscapes are studied across many disciplines (Bloemers et al., 2010), the terms' origins are in cultural geography (Riesenweber, 2008), and for that reason we follow the theoretical developments within that discipline. However, it should be noted that many of the perspectives and ideas that have been drawn on by cultural geographers to elucidate the meaning of cultural landscape originated outside the discipline. As will be shown, the role of "culture"

and the understanding of the relationship between humans and the natural environment are important in theorizing landscape, but so too are the ideological functions of landscape in art, poetry, and prose.

Part II discusses planning theory, especially communicative or collaborative planning. The rationale for focusing on communicative planning is not based entirely on its prominence in planning literature. Rather, cultural landscape policy provides for the inclusion of the public in planning. A meaningful role for the public in cultural landscape planning necessitates communication, and communicative planning seems to offer the strongest theories to guide a participatory practice. In Part III, we turn to an examination of how the theories of cultural landscape and communicative planning may function together in planning for cultural landscapes. The combination of these theories provides a framework for evaluating methods *a priori*. However, examining the convergences between theories is intended not only to provide a lens for evaluating methods, but also to draw attention to tensions inherent in landscape and alert practitioners to the potential implications of conducting uncritical cultural landscape studies.

Part I: Selected History of Cultural Landscape Theory

Origins of the term 'Cultural Landscape'

The term "landscape" originated about 500 CE in Anglo-German, as *landscaef* and had a duplicitous meaning as both "a restricted piece of land" and the "appearance of land as we perceive it" (Olwig, 1996). In the late sixteenth century, landscape (re)entered the English language to denote inland natural scenery in relation to paintings or the perspective of a viewer (OECD, 2000: Landscape). The adjunct "cultural" was added to landscape in 1925 in Carl

Sauer's publication "Morphology of the Landscape" (Wylie, 2007; Riesenweber, 2008). In Sauer's interpretation, cultural landscapes are the result of culture transforming the natural environment: "culture is the agent, the natural area is the medium, and the cultural landscape the result" (Sauer, 1925: 343). For Sauer, cultural landscape processes differ from non-human biological processes, geological activity, weathering, etc. He posits that "the area before the introduction of man's [*sic*] activity is represented by one body of morphologic facts . . . the forms that man has introduced are another set" (Sauer, 1925: 333). In cultural landscapes, "culture itself" is the driver of landscape change.

Sauer's introduction of the term cultural landscapes was both created from and in response to his predecessors and contemporaries. The idea of cultural transformations to natural environments can be traced to nineteenth century German Romanticism (Wylie, 2007), and the dissatisfaction with his contemporaries' theory of environmental determinism is evident in his work (Wylie, 2007; Riesenweber, 2008). Environmental determinism posits that different landscapes shape constitution, organization, and social relations of societies (Castree. Kitchin, & Rogers, 2013). Hellen Semple, whose work is emblematic of environmental determinism, published *Influences of Geographic Environment* in 1911 wherein she examined the relationship between environmental influences and, not only state and societal attributes, but also the physical qualities of diverse peoples (p. 32-74). That work was largely based off that of Fredrick Ratzel, who developed a system based on principles of evolution. Although Semple may have chosen not to adopt the term "geographic determinant and [took] a more cautious approach to geographic control" (Semple, 1911: vii), her work remains "akin to and formative of racism" (Wylie, 2007:6).

Carl Sauer, who led the Berkeley School of Cultural Geography from the 1920s to the 50s, was interested in the dispersion of culture through regions, and the relationship between culture and nature (Winchester, Kong, & Dunn, 2013). Environmental determinists posited that, "culture was drawn up through the soles of your boots," but for Sauer "culture was left as an imprint on the landscape" (Winchester, Kong, & Dunn, 2013: 15). Sauer's work was empirical, being based on first hand observation in the field, where observation leads to 'factual evidence' (Wylie, 2007). Two totemic geographers who followed and built upon Sauer's notion of cultural landscape are W.G. Hoskins and J.B. Jackson. The former authored *The Making of the English Landscape* in 1954 which took a historical approach to understanding the 'deep past' in specific places, while the latter employed Sauer's notion of cultural landscape to celebrate vernacular, or 'everyday' landscapes.

From 1951 to 1968 Jackson was the publisher and editor of the journal *Landscape*. His adherence to Saurian notions of landscape is evidenced in one of his later essays, titled "In Search of the Proto-Landscape." There, Jackson defines landscape as "made by a group of people who modify the natural environment to survive, to create order, and to produce a just and lasting society" (Jackson, 1995, as cited in Wylie, 2007: 43). Like Sauer, Jackson defines cultural landscape as a unidirectional morphologic process with agents acting on and shaping a medium. However, by the time this definition was published, cultural geographers using a Marxist lens to examine landscape where fundamentally reinterpreting the idea of cultural landscape. Jackson's emphasis on "order" and "just societies" in his definition may be reflective

of novel interpretations from his contemporaries examining landscape under the banner of "new" cultural geography.

"Culture" and "Landscape" in New Cultural Geography

Although visual art commenters and others had developed constructivist interpretations of landscape prior to 1980 (e.g. Berger's Ways of Seeing, 1972), it was in that year that James Duncan published "The Superorganic in American Cultural Geography," which lambasted the drivers of cultural landscape morphology common to the Sauerian tradition. Duncan critiqued cultural geographers' notion of culture as being "superorganic" (Duncan, 1980). Cultural Geographers, according to Duncan, had several misconceptions of culture, including "the separation of the individual from culture, the reification of culture, the assumption of internal homogeneity within a culture, and the characterization of culture as a configuration of modal personality types" (Duncan, 1980: 181). After critically analyzing these assumptions, Duncan advances an alternative definition of culture, one in which culture is "not treated as an explanatory variable in itself but used to signify contexts for action or sets of arrangements between people at various levels of aggregation" (1980: 197). Thus, for Duncan, 'culture' was not the cause of landscape change, as it was for Sauer, but instead was more aligned with interpretations from cultural studies. Cosgrove and Jackson also borrow from cultural studies when they paraphrase Stuart Hall, a prominent cultural theorist, in their definition of culture: "culture is a medium through which people transform the mundane phenomena of the material world into a world of significant symbols to which they give meaning and attach value" (Cosgrove & Jackson, 1987).

A group of 'new' cultural geographers had formed; they were distinguished by not only rejecting Sauer's notion of culture, they also challenged the idea of landscape as a material thing and proposed that landscape is as much an idea as a physical substance (Riesenweber, 2008). Cosgrove and Jackson, in *New directions in cultural geography* (1978), argue that:

> the concerns of Sauer and the Berkeley School were dominantly rural and antiquarian, narrowly focused on *physical artifacts* . . . Inevitably, such landscapes or regions were identified as the product of stable, pre-modern and dominantly agricultural societies whose inscriptions were threatened by the processes of modernization
>
> (Cosgrove & Jackson, 1978: 96)

In addition to reinterpreting the term "culture" and critiquing the Berkeley School's methods, other key elements of this transition include a more discursive and interpretative methodology, wherein landscapes are products of cultural imagination in prose, poems, and paintings (Wylie, 2007: 68), as well as the adoption of Marxist and other perspectives to interpret landscape meaning. These aspects of new cultural geography are exemplified in Cosgrove's *Social Formations and Symbolic Landscape* (1984), where he examines the evolution of the landscape idea beginning in the Renaissance and ending in the late nineteenth century. He draws upon several representations of landscape in the European tradition, including those found in urban design, gardening, painting, and poetry and seeks to understand the meaning of "landscape" in relation to changing uses and perceptions during the development of capitalism in Europe (Cosgrove and Jackson, 1987).

In *Social Formations,* Cosgrove uses an iconographical approach to argue that the idea of landscape serves an ideological function through which "certain classes of people have signified themselves and their world through their imagined relationship with nature, and through which they have underlined and communicated their own social role and that of others with respect to external nature" (Cosgrove, 1984: 15). The emergence of landscape ideas alongside the rise of capitalism and decline of feudalism is central in his analysis. In a feudal society, Cosgrove argues, the relationship with landscape was predominantly that from an 'insider' perspective, while through privatization of land in capitalist societies, the relationship with nature changed to that of owner and commodity, resulting in alienation and an 'outsider' perspective (Cosgrove, 1984: 64). The idea of landscape was thus interpreted as "serv[ing] in part to promote ideologically an acceptance of the property relationship while sustaining the image of an unalienated one" (Cosgrove, 1984: 64).

The influence of John Berger in *Social Formations* is captured in the closing paragraph: "Sometimes a landscape seems to be less a setting for the life of its inhabitants than a curtain behind which their struggles, achievements, and accidents take place" (Berger, 1976, as cited in Cosgrove, 1984: 71). This quote forwards the idea of landscape as an idea behind which the realities of socio-economic, environmental and political systems are concealed. Other works, such as *Iconography of the landscape*, identify landscape as "a cultural image, a pictorial way of representing, structuring, or symbolizing surroundings" (Daniels & Cosgrove, 1988: 1), which also emphasizes a constructivist approach. A slightly different, albeit still constructivist approach, can be found in James and Nancy Duncan's "(Re)reading the landscape" (1988). In that work, landscape is interpreted as text, as something that can be "read in much the same way

as literary texts." (Duncan & Duncan, 1988). The metaphor of text was closely aligned with Clifford Geertz's work in anthropology and had strong appeal to humanistic geographers (Cosgrove & Jackson, 1987). In another work, Duncan (1993), uses a constructivist approach to establish an interpretation of landscape in the context of a European 'discourse of the Other' supported through analysis of explorer and imperial perspectives documented in text and images. This work is not unlike that of Edward Said, who devoted much effort to theorizing the invention and construction of geological space in what he calls an "imaginative geography" that paid little attention to the actual inhabitants and worked in step with colonialism and the annexation of territory (Said, 1994).

For Olwig (1996), the textual approach to landscape signalled the disciplines dematerialization. The interpretations germane to new cultural geographers – landscape as a curtain, text, or imperial gaze – shift the meaning of landscape from something that is seen to a way of seeing; landscape becomes a representation, something not described, but interpreted (Wylie, 2007: 92). Common threads in these works include a critical constructivist approach, adoption of a hermeneutic mode of representation (Duncan and Ley, 1993) and, as will be suggested below, an interpretation of culture that *did not* rectify Sauer's (1925) use of the term. When contrasted with Sauer and the Berkeley School's positivist and empiricist approach, Olwig may have been correct in signalling a form of disciplinary dematerialization, or at least a significant juncture in cultural landscape theory. To be sure, landscape was no longer "the field of geography", as Carl Sauer (1925) posited it was. Theories were borrowed from other disciplines and other disciplines theorized landscape. Through this interdisciplinary theorizing, further conceptualizations of "landscape" and "culture" were developed.

A Newer(?) Spin on "Landscape" and "Culture"

In 1995, Don Mitchell observed that the same critique that new cultural geographers leveled against Sauer's use of the term culture was similarly applicable to the ideas that developed thereafter (i.e. the term culture was again misused). Mitchel recognized that, while new cultural geography demonstrated how culture is both socially constructed and contested, the use of the term maintained the ontological status and causative powers emblematic of the Berkeley School. Mitchell replaced the ontological status of culture with the idea that culture does not really exist; it is instead a powerfully implemented idea. He recognized how the "idea of culture functions in a differentiated society to naturalize and smooth out differences" and forwarded the idea of a critical infrastructure that produces culture, such as through academics, media sources, and politicians. Culture, in this interpretation is constructed out of the materials of everyday life, and it is those who benefit from it most who get the privilege of defining what it is and how it is represented (Mitchel, 1995).

Not long before Mitchell's 1995 publication, the idea of landscape was reimagined as well. Writing for the discipline of anthropology, Tim Ingold developed a solid critique of both new and old cultural geography's interpretation of landscape. After introducing the definition of landscape provided by Cosgrove and Daniels in *Iconography of the Landscape*, Ingold states:

> I do not share this view. To the contrary, I reject the division between inner and outer worlds – respectively of mind and matter, meaning and substance – upon which such a distinction rests. The landscape, I hold is not a picture in the imagination, surveyed by the

> mind's eye; nor, however, is it an alien and formless substrate awaiting the imposition of human order. The idea of landscape, as Meing writes, 'runs counter to recognition of any simple binary relationship between man and nature' . . . As the familiar domain of dwelling, [landscape] is *with* us, not against us . . . and by living in it, the landscape becomes a part of us just as we are a part of it.
>
> (Ingold, 1993:154)

For Ingold, the landscape cannot be separated from the perceiver, those studying it, and especially, those dwelling therein. He adopts a "dwelling perspective," which is premised on the idea that human-engaged landscape morphology is a process of incorporation, not inscription. The landscape is a living process, made by humans and making humans in return. The idea of embodiment is key in his interpretation, where the dichotomy between nature and humans disappears: by dwelling in the world, "we do not act *upon* it, or do things *to* it; rather we move along *with* it" (Ingold, 1993: 164). In considering the temporality, or fleeting and dynamic nature of landscape, Ingold asks us to imagine the world in fast forward to witness the fluid dynamics of landscape; speeded up to the point where "solid rock bends, buckles, and flows like molten metal" and "the world itself begins to breath" (Ingold, 1993: 164). Drawing on Ho (1989), he finds that "the rhythmic pattern of human activities nests within the wider patter of activity of all animal life, which in turn nests within the patterns of activity of all so-called living things, which nests within the life processes of the world" (Ingold, 1993: 164). Coherence in the "nesting" of nature is generated from resonance between and amongst the various attributes and systems, according to Ingold, which are always in motion.

The implications of Ingold's work are multifaceted and nuanced. While old cultural geographers were occupied with empiricism and postpositivism, and new cultural geographers relied on constructivism, Ingold's work defies clear classification. He critiques the idea that meaning covers the world in layer upon layer, as it creates an intellectual space in which human geography can flourish without concern for what the world means to the people who live in it (Ingold, 1993: 171). Instead, he proposes that stories help to open up the world. He argues that we can take the Western Apache of North America as a model, where stories are intended to place the listener in relation to features in the landscape in order that their meaning may be revealed or disclosed. Concluding that Ingold is suggesting a phenomenological or ethnographic method of inquiry might be misguided, however, as Ingold was writing from an archaeological point of view. Instead, he proposes probing more deeply into the landscape instead of interpreting layers, which does little to elucidate Ingold's position. For him, "meaning is there to be discovered in the landscape, if only we knew how to attend to it" (Ingold, 1993: 172).

In perspective, landscape has been, and continues to be characterized by intense interdisciplinary activity. It is studied by many disciplines (including anthropology, archaeology, ecology, historical studies, landscape architecture, environmental history and other environmental studies, psychology, sociology, and of course, planning [Bloomers et al., 2010]) and has not gone unnoticed by theorists. Ideas of actor network theory, for example has added that humans are continually depended on a myriad of non-human actants for survival and new ventures (Castree, Kitchin & Rogers, 2016). Some other ideas challenging cultural geography's conceptualizations of landscape include, hybrid geographies,[1] topological interpretations,[2] and

[1] Hybrid geographies are those that "transgress and displace boundaries between binary divisions and in doing so produce something ontologically new" (Rose, 2000 as cited in Mayhew, 2015)

non-representational theory[3] (Wylie, 2007). The prolific interdisciplinary theorizing of landscape has resulted in what some have questioned as the end of landscape (Rose and Wylie, 2006). Despite some cultural geographers carrying the landscape torch (e.g. Bender 2001; Wylie, 2005; Bissell, 2009), the journal *Progress in Human Geography* decided to discontinue reports on landscape (Wylie, 2007), and cultural geographers have put addressing the term "culture" on hold (Wylie, 2016), and cultural geography, it seems, has turned to making sense of earlier theories instead of generating new ones (Mitchell, 2000).

While "old," "new," and "newer?" cultural geographers should be applauded for their vigilance in ensuring the epistemological rigor of the discipline, it may also be that the various interpretations of cultural landscape can coexist. Studies that continue in the tradition of the Berkeley School, which examine the distribution and diffusion of culture through an artefactual lens may move forward in parallel to an interpretation of culture as dynamic and socially constructed (Winchester, Kong & Dunn, 2003). We might understand cultural landscape not only through the physical landscape, but also through landscapes in text - including verbal, written and pictorial. We might recognize that landscape is "the world as it is known to those who dwell therein, who inhabit its places and journey along the paths connecting them" (Ingold, 1993: 156), which places elucidation of landscape meaning in the domain of those who dwell therein.

Cultural landscape policy that includes an implicit or explicit role for the local public is, in part, aligned with Ingold's dwelling perspective. Yet, cultural landscape theory has been

[2] Topology generally refers to nodes and there connections to other nodes to form networks (Not unlike a rail system, where stops represent the nodes and the tracks represent the connections which form a network) (Mayhew, 2015).
[3] Non-representational theory questions what is meant by perception, and practice, and provides the basis for an experimental rather than representational approach to the humanities and social sciences (Thrift, 2008).

unconcerned with understanding landscape from the perspective of those dwelling in the landscape. The theorists discussed above have each, to a greater or lesser extent, relied heavily on expert approaches. The fieldwork of the old cultural geographers was based on the premise that through expert observation, landscapes could be known. For the so-called new cultural geographers, an iconographic approach complemented their constructivist worldviews which entailed expertise and critical thought, not public participation. Planning, on the other hand, is occupied with public participation. We ought, then, to establish *why* the public should be included in planning for cultural landscapes, before describing *how* the public has been included in practice. To work towards resolving these quandaries, we will now review communicative planning theory and consider how the ideas of cultural landscape may function vis-à-vis planning practice.

PART II: Selected Planning Theory

At approximately the same time that new cultural geographers were reimagining cultural landscapes, planning was also experiencing fundamental shifts, both in practice and in how theory was being developed. Prior to the mid-twentieth century, the practice of planning could largely be characterized as a technocratic endeavour wherein experts provided solutions to spatial challenges and ambitions. Often termed the "rational comprehensive" model of planning, the approach relied heavily on the scientific method and quantitative analysis.[4] Although that model remains axiomatic in much contemporary planning practice, the criticisms against it are many and well known.

[4] Hudson (1979) lists some of the tools of rational comprehensive planning. These can be broken down into: deterministic models (e.g. trend extrapolation and economic models); probabilistic models (e.g. simulation programs) and; judgemental approaches (e.g. Delphi technique).

According to Allmendinger (2002), the turn away from rational comprehensive planning was spurred by two challenges. First, insights from philosophers questioned the neutrality of observation, the independence of data from theoretical interpretation, as well as the distinctions between natural and social sciences. Instead, theories, data, and disciplines were understood as belonging to the historical and social contexts in which they were applied, and social reality was seen as socially constructed. Second, the methods and techniques of rational comprehensive planning did not improve planning practice and they created disenfranchised publics as well as social, physical, and economic problems as great as those planning practices sought to address (Allmendinger, 2002).

For Jane Jacobs, planning theory, in part, was responsible for the deleterious effects of planning practice. When Jacobs (1961) examined the use of planning theory, she argued compellingly that when the ideas of planning theorists were adopted – such as those of Ebenezer Howard, Lewis Mumford, Le Corbusier, and others – people who sincerely wanted to strengthen cities were, in fact, adopting formulae that harmed them. In her analysis, practitioners and teachers had "ignored the study of success and failure in real life, [had] been incurious about the reasons for unexpected success, and [were] guided instead by principles derived from the behaviour and appearance of towns, suburbs, tuberculosis sanatoria, fairs, and imaginary dream cities – from anything but cities themselves" (Jacobs, 1961: 96). In the wake of observations like those of Jacobs, planning theorists began to examine practice: instead of "armchair theorizing and systematic thinking about planning" theorists where "finding out what planners do" or put succinctly, studying the practice of planning (Innes, 1995: 183-84).

The study of planning practice generated new planning theories that are, in part, defined by the dialectical tension between them and the rational comprehensive model (Hudson, 1979). Some of these perspectives include the incremental perspective of Charles Lindblom,[5] the advocacy-equity framework of Paul Davidoff,[6] and post-modern and multicultural models (Filion, Shipley & Te, 2007). Perhaps the most significant school of planning theory to emerge after the revolt against urban renewal in the 1960s is collaborative planning (Allmendinger, 2002). Collaborative planning is a form of practice derived from the "study of practice" (Innes, 1995) and from communicative theory (Harris, 2002). It has been developed by several theorists and planning practitioners using a variety of terms, such as communicative planning, argumentative planning, planning through debate, and inclusionary discourse (Allmendinger, 2002). Although other political and critical theorists, such as Heidegger, Foucault, Giddens, and the American pragmatists Dewy and Pierce influenced communicative planning theorists, Jurgen Habermas' work was especially influential, being seen as "likely to provide the principle framework for the new planning theory" (Innes, 1995: 186).

One possible explanation for the pre-eminence of Habermas' theory of communicative action in planning theory is that, with the broad shift away from positivism in the 1970s, planners were seeking new universal principles even as the philosophical notions of such principles were disappearing, and Habermas offered the solution (Harrison, 2002). An alternative and more positive explanation for Habermas' influence is that his theories confronted emerging concerns, especially a concern regarding the role of professional knowledge and legitimacy which led to

[5] In "The Science of 'Muddling Through'" Lindblom (1959) describes policy formation for complex problems as "successive limited comparisons" instead of a "superhuman" rationally comprehensive practice.
[6] Davidoff (1965) proposes a model of plan making wherein planners act as advocates for interested parties, not unlike a judicial process.

discomfort with the role of planner as expert.[7] While many critical theorists contended that science is constructed and distorted by power – concealing as much as it reveals – Habermas argued that there is a role for the scientific method and instrumental rationality, which made his work acceptable to a broad range of planning practitioners (Innes, 1995). Furthermore, Habermas' focus on the development of critical or emancipatory ways of knowing[8] (communicative rationality) offered "planners the possibility of an ethical stance within the world as they experience it" (Innes, 1995: 186).

Rationales for Communicative Planning

The ethical stances and normative rationales for communicative planning are explicit in much of the literature that emphasises communication in a Habermasian vein. In *Planning in the Face of Power* (1989) John Forester develops a critical theory of planning using praxis – where theory frames and is refined through practice – that takes an explicitly ethical and practical position: "critical theory of planning practice can be empirically based, practically fitting, and ethically instructive" (p.138). For Forester, planning is characterized by bounded rationality[9] (as opposed to comprehensive rationality) and he argues that under conditions of severe structural distortion, planners ought to adopt restructuring strategies:

> . . . that work toward effective equality, substantive democratic participation and voice, and strategies that work away from the perpetuation of systematic racial, sexual, and

[7] Innes (1995) has identified this theme across a spectrum of planners who contributed to Thomas and Healy's (1991) *Dilemmas of Planning Practice.*
[8] Habermas' emancipatory ways of knowing is described by Innes (1995) as: being self-reflective and generated from discourse or dialectic, as well as praxis.
[9] Forester describes several areas of individual, socio-economic and political life that contribute to bounded rationality. These include cognitive limits, social differentiation (in term of division of labour as well as differentiated interpretation of problems and acceptable solutions); pluralist conflict (differences in levels of organization, access and interests) and; structural distortions (unequal distribution of power and the ability to act).

> economic domination . . . whereby effort is directed to empower populations which might act further to alter the structures of power in the society
>
> (Forester, 1989: 60)

Forester was concerned with communicative action and the role of planners as "organizers of attention," . . . "developers of possible alternatives" as well as their position as advocates. The role of planners, for Forester, is to shape communication while recognizing that information is not power neutral and that unnecessary communicative distortions can be addressed; for when communication is structurally distorted, "democratic political action will be crippled" (Forester, 1989: 149). Forester is not alone in his emphasis on the democratic implications of communicative planning.

Patsy Healy also identifies communicative planning as an avenue for more democratic decision making, in what she terms 'place-governance with a planning orientation' (Healy, 2010), which is related to ideas of participatory governance. Fischer (2012) identifies participatory governance as "the provision of means to engage individuals and organizations outside government through political networks and institutional arrangements that facilitate supportive collaborative-based discursive relationships among public and private sectors" (p.349). However, equally important in communicative planning are the relationships that may form amongst the public, in addition to those between citizenry, public, and private sectors. Healy (2007) and Sandercock (2009) both recognize that a characteristic of contemporary society is multiculturalism and diversity which can require the negotiation of new identities. Providing the spaces for negotiation of political and social values can lead to new forms of governance:

where "people become aware of how their concerns inter-relate not only with those of their neighbours, but with those of people elsewhere whose concerns are raised in the discussion" (Healy, 2010: 144). The purported resultant of social cohesion has the capacity to catalyze the creation of place-governance systems, which are seen as a reaction to a "democratic deficit" (Healy, 2010; Fischer, 2012).

The democratic deficit is characterized by centralized power, unequal distribution of resources and power, and opaque processes (Fischer, 2012). Thus, through communicative planning, social justice in decision making may be achieved by devolving power to stakeholders and others with interest in the outcome of decisions. Such devolution can also generate sentiments of fairness, which in turn can increase the perceived legitimacy of decisions and decision-makers. If citizens see the decision-making process as fair, then they are more likely to support the outcome, even if it is not the decision they supported (Roberts, 2004; Shipley and Utz, 2012), which speaks to the eminence of procedure in shaping perspectives. Furthermore, by collaborating with a diversity of stakeholders, it is thought that better decisions to complex problems may result.

Several authors posit that the world is characterized by increasing levels of uncertainty and complexity and suggest that participatory governance might provide solutions to wicked problems.[10] John Dryzek summed this up succinctly when he stated:

[10] Rittel and Webber (1973) identify 10 characteristics of wicked problems: it is unclear when they have been solved; there is no definitive formulation (complex interdependencies, often social in nature); there are no true or false solutions; there is no immediate or ultimate test of a solution, instead, there are waves of consequences over an extended period of time; there is no opportunity to learn by trial and error; there is no well described set of solutions; every wicked problem presents as unique; wicked problems can be considered symptoms of other problems; the way a wicked problem is described/understood determines the resolution (attitudes guide the choice) and; a planner has no right to be wrong.

> The assumptions of representative democracy have been progressively undermined by the scale and complexity of contemporary societies and their rate of change. Elected representatives can rarely capture the diverse values and social and economic interests of their constituents, while the uncertainties generated by novel threats argue for the inclusion of a wider range of knowledges in decision making.
>
> (Dryzek, as cited in Stagl, 2006)

Rittel and Webber (1973) illustrate how and why contemporary social planning problems are inherently wicked: "they defy efforts to delineate their boundaries and to identify their causes" (p.167) and "are ill defined and they rely upon elusive political judgement for resolution" (p.160). Participatory governance is offered here as a solution to problems generated by increasing levels of uncertainty and complexity in social and environmental challenges, and may provide a means to define problems in a way that generates an acceptable solution to those most impacted.[11] Through such governance, planning is thought to have the capacity to modify existing institutions and power arrangements that, arguably, are, in part, responsible for social and environmental injustices in the first place.

Lastly, Innes (1995) provides a finding that bolsters the merits of communicative planning. Innes set out to identify how and under what circumstances knowledge affects decision making. Her self-proclaimed most important finding was that "information that influences is information that is socially constructed in the community where it was used" (Innes, 1995:185).

[11] The way wicked problems are defined determines acceptable solutions (Rittel & Webber, 1973). Rittel and Webber (1973) posit that individuals pick definitions of wicked problems that fit with their intentions and confirm the action-prospects that are available to them (p.166).

She found that when knowledge was constructed by a community, it becomes embedded in the assumptions and practices of the users; it is no longer examined, evaluated or criticized. The implications of this finding reach farther than we are able to delve in at this time. But for the sake of a thought experiment, we might imagine how a community would respond to knowledge of a degraded environmental asset, such as a wetland complex, if knowledge regarding its degradation was constructed through stakeholder collaboration instead of by a government ministry. Here then, the rational for collaborative planning is associated with substantive ends. With ownership of knowledge, information becomes part of the lived experience through a type of social learning, which in turn, may make policy issues more salient and actionable.

Challenges to Communicative Planning

While it may seem, based on the above discussion, that communicative planning is a panacea in waiting, that claim would be misguided. The definition provided by Hiller is perhaps a more accurate representation of what collaborative planning might achieve:

> Collaborative planning is most suitably interpreted as an element in a longer-term programme of research and theoretical development focused upon a concern with the democratic management and control of urban and regional environments and the design of less oppressive planning mechanisms
>
> (Hiller, 2002: 22)

Hiller accurately identifies communicative planning as a belonging to a longer and unfinished project of democracy, and it is certainly not without its limitations. A challenge with

communicative planning lies in determining how we might square the decision of one geographically defined community with those of other communities. For example, how would decisions regarding the extraction of oil, arrived at through collaborative planning exercises in an oil producing region, function in relation to those of a community who bears the risks of transporting that oil? And, even if the two communities are able to compromise, how does their shared decision square with the national and global community's push for a carbon neutral economy? This is not to say that communicative planning is not apt for spatial planning applications, but rather that there appears to be inherent limitations in its scalability and the type of challenges it may address.

Even when communicative planning is mobilized as a decision-making process in a relatively limited and discrete geographic region, it faces a number of challenges. A recurring challenge evident from the literature attempting to implement collaborative planning is the lack of incentive and motivation for the public to participate. Fisher (2012) posits that the benefits of participation must outweigh the costs to achieve high levels of participation. He also notes that, in some situations, participation may lack immediate relevance and interest may be greater from "outsiders" than in the immediate community. Public apathy caused by social barriers to public participation is a recurring problem and in cases where compromises are required, sub-optimal solutions may be the result (Jones, 2011). Furthermore, collaborative planning can be time consuming (Jones, 2011; Shipley and Utz, 2012) which means that it might not be suitable for addressing problems that need quick solutions.

The role of power in the application of collaborative planning programmes has also come to the fore as a challenge. Jones (2011) highlights the work of Bill Cooke and Uma Kothari, titled *Participation: The New Tyranny?* (2001). In that work, the power dimension is brought into focus, where it is argued that participation can provide the opportunity for powerful groups to manipulate participation and have their agenda accepted. While those authors are reported as being not unfavourable to participation, their work serves as a reminder that through manipulation by powerful interests, acts of collaborative planning may, paradoxically, reinforce oppression and injustice (Jones, 2011). Warnings about the role of power stymieing the ethically-based pursuits of social justice and fairness during a collaborative planning process may not come as a surprise, especially for those that are acquainted with the critiques of Habermas' ideal speech situations and universal validity claims.

Brent Flyvbjerg and Tim Richardson (2002) provide a succinct critique of Habermas' communicative action framework: It fails to account for the reality of power at work in communication, and is correspondingly, based on an unattainable utopia. The fundamental weakness in Habermas' work, for them, is "its lack of agreement between ideal and reality, between intentions and their implementation, and [its] rooted[ness] in an insufficient conception of power. . .. He describes to us the utopia of communicative rationality but not how to get there" (Flyvbjerg & Richardson, 2002: 46). They propose that a solid understanding of power relations is needed for political change, and that Michel Foucault's analyses, unlike Habermas', "offer[s] a type of planning theory which is more useful in understanding how planning is actually done and offers better prospects for those interested in bringing about social change through planning" (Flyvbjerg & Richardson, 2002: 61).

While the claims of Flyvbjerg & Richardson (2002) certainly appear to be appropriate criticisms of Habermas' theories, two of the most cited communicative planning theorists, Patsy Healy and John Forester, were well aware of the role of power in communication and the limitations of Habermas' theory of communicative action. Forester, for example, who addresses power throughout *Planning in the Face of Power*, recognizes that planning organizations are structures of power, and that in such contexts, planners and public administrators have a responsibility in their communication:

> the responsibility of planning analysists is *not* to work toward the impossible perfection of 'fully open communications.' It is to work instead toward the correction of needless distortions, some systematic and some not, that disable, mystify, distract, and mislead others: to work towards political democratization of daily communications
>
> (Forester, 1989: 21)

In Forester's analysis then, power creates distorted communication and it is the job of the planner to work towards correcting such needless distortion. There is no hint in Forester that he takes Habermas' theory to be representative of reality; to the contrary, he sees it as "impossible." Likewise, Patsy Healy has recognized the role of power in communication (Healy, 1992)

So, while some observers have proposed that Foucault's theories are *better* for people seeking social change through planning (Flyvbjerg & Richardson, 2002), the use of his theories are, arguably already present in the work of pragmatists (like Healy and Forester) who also use

communicative action theory. If we were to examine how communicative planning theorists have addressed power where Habermas did not, we may see that Habermas and Foucault are both already present in the works of collaborative planning theorists, and that each other's' theories continue to be relevant for contemporary planning of cultural landscapes.

Part III: Planning for Cultural Heritage Landscapes

Planning and cultural landscape are unified in practice through cultural landscape planning. Yet, no attempt to examine the synergies and divergences between their respective theories has been identified in the literature. By examining areas of convergence and complementarities between planning and cultural landscape theories, we may develop a framework to evaluate methods of cultural landscape identification and preservation, as well as develop criteria to evaluate cultural landscape planning initiatives. It seems appropriate that most planning endeavours be aligned with, and in pursuit of, the ethical stances germane to planning theory, and that cultural landscape planning do so while remaining attuned to the meanings of cultural landscape. Although a thorough exploration of intersections of these two bodies of work is beyond the scope of this review, some of the key areas of convergence will be discussed. Both cultural landscape and planning theory are concerned with the physical environment and the ideas, structures, symbols, people and meanings that reside therein. Both also encounter issues of social and environmental injustice. Cultural landscape theory has shown us how landscapes have been used as tools for oppression, colonialism, and for normalizing power relationships. Planning theory tells us how we might work to ameliorate those functions of landscape. However, before examining how these theories might complement each other, we will examine

the meaning of landscape in policy, as it relates to the various streams of landscape theory presented in Part I.

Operationalization of "Cultural Landscape" in Policy

The dynamic trajectory of the terms "culture" and "landscape" in cultural geography can be instructive when we consider planning for cultural landscapes. Cultural landscape policy – in Ontario and at UNESCO – is subject to the same criticisms that Cosgrove and Jackson (1987) said of the Berkeley School; it focuses predominantly on rural landscapes and is often antiquarian (this latter point appears to be especially true in Ontario, where the term cultural *heritage* landscape is used). As well, cultural landscape planning is often concerned with physical artifacts, and unabashedly seeks to protect landscapes that are perceived to be the product of pre-modern, dominantly agricultural societies that are threatened by the processes of modernization.[12] UNESCO's definitions and policies are especially close to practices of the Berkeley School. The use of landscape typologies (designed, organically evolving, and associative) is indicative of the postpositivism implicit in their approach. In relation to the rural and agricultural focus of the Berkeley School and the desire to preserve such landscapes from modernization, UNESCO's *Operational Guidelines* state that "cultural landscapes often reflect specific techniques of sustainable land-use . . .[and] the continued existence of traditional forms of land-use supports biological diversity in many regions of the world" (Annex 3.9). Here, we see an emphasis of the pre-modern and sustainability ideals through the use of the term

[12] It is not my intent here to say that we ought not reduce the pressures of modernization on traditional and dominantly agricultural societies: rather, the argument for preserving such lifeways through cultural landscape policy seems a pertinent complement to other initiatives aimed at sustainability and empowerment of marginalized groups. Although defining "sustainability" and detailing pressures antithetical to the idea of sustainability fall outside the scope of this thesis, it is worth noting that the trends of urban sprawl, resource extraction (including energy production), invasive species spread, corporatization of economies, industrial agriculture, loss of wetlands, eutrophication of waterbodies, and other trends of environmental change are well documented as unsustainable.

"traditional." There is a high level of utility in UNESCO's idea of cultural landscapes as well, which can be seen in the statement that, "protection of cultural landscapes can contribute to modern techniques of sustainable land-use" (S.I.9). In these ways and others, UNESCO policy utilizes an idea of cultural landscape that is not unlike that which was endorsed by the Berkeley School and old cultural geographers.

The ELC also supports the protection of cultural landscapes for the purposes of sustainability in the face of modernization. Article 1e, for instance, defines 'landscape management' as action "from a perspective of sustainable development, to ensure the regular upkeep of a landscape, so as to guide and harmonise changes which are brought about by social, economic and environmental processes." Like UNESCO and the Berkeley School, the ELC is concerned with using the cultural landscape idea to preserve what is considered sustainable – as a way to moderate and direct unsympathetic modernization. However, their definition of landscape, as "an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors" (Article 1a), is more consistent with the ideas of embodiment and dwelling developed by Ingold and others. This is especially true regarding their word choice of "interaction of natural and/or human factors," which implies that landscape/human processes are of incorporation instead of inscription. In each of the policy arenas discussed here (ELC, PPS, UNESCO) the separation between "nature" and "culture" are beginning to fray.

In order for a landscape to be identified as a CHL in the province of Ontario, it must be deemed "significant." The PPS defines significant in regard to cultural heritage, as "resources

that have been determined to have cultural heritage value or interest for the important contribution they make to our understanding of the history of a place, an event, or a people" (PPS: S.6.0). Here, we see that cultural landscapes are valued for their contribution to our way of knowing, "our understanding" of history, which, as in the Saurian tradition, places emphasis on the past. The epistemological value assigned to landscapes is aligned with old cultural geography as well, especially in the position that we can know the landscape, and the landscape reveals things to us.

Convergences in Planning and Cultural Landscape Theory

Both planning theory and cultural landscapes theory address the physical environment and the ideas, structures, symbols, people and meanings that reside therein. Like new and old cultural geographers who examined landscape through the eyes of experts doing field work or iconography, there has and continues to be a strong role for the experts in cultural landscape planning. However, ethical stances in communicative planning theory indicate that by maintaining a central role of the experts in identifying cultural landscapes, opportunities for generating intercultural understanding, social learning, and, generally, working towards the ideal of place-governance would be missed. If cultural landscape planning were to involve the public in a meaningful way, how might that be done? First, it is worth noting that Forester (1989: 48) argued that what are considered rational actions for planners to attempt depends on the situations in which they work. In the current situation, the objective is to identify geographic locations that are inter-subjectively valued for the purpose of conservation. Therefore, we are interested in what different geographic areas mean to different people, and especially in areas where there are shared sentiments of value. So, how might such values be elicited?

Landscape, for Ingold is "the world as it is known to those who dwell therein, who inhabit its places and journey along the paths connecting them" (1993: 156). Thus, to understand what landscape means and to identify locations of shared value, we may start by providing the opportunity for those who dwell in the landscape to share their lived experiences. This would require a method that has the ability to uncover the nuanced experiences of those who dwell in the landscape, whether it be residing in a physical structure or travelling through it. This seems to imply that a phenomenological approach might be well suited for the identification of valued cultural landscapes. That Ingold's interpretation of landscape is based on the dweller's experience makes it amenable to participatory planning exercises.

Another area of convergence between planning and cultural landscape theory is in their concerns with social justice. New cultural geographers were interested in demonstrating how the idea of landscape served an ideological function by, for example, maintaining feelings of unalienation despite exclusionary private property laws; by developing national symbols and discourse that excluded indigenous peoples; or as a tool of colonization and imperialism. Planning theory, too, addresses issues of social justice, and, as argued here, may provide the means to ameliorate some of the social justice issues complicit in the ideological function of landscape.

Collaborative planning for cultural landscapes may provide a means to dispel some aspects of alienation from the landscape. By taking a locally based and collaborative approach to public participation in identifying landscapes, communities may, psychologically and materially,

reclaim landscape despite the continued presence of real property lines. There may be a form of psychological unalienation by virtue of participating in decision-making that affects the landscape; by empowering a community to determine what is acceptable land use and what is not, the community may reclaim a sense ownership (and perhaps responsibility) for lands not owned by them. The outcome of designating a landscape as having special cultural or historical significance may also provide revenue flows from the landscape. If, for example, a cultural landscape is designated and in turn draws tourists to the area, a vendor benefiting from increased tourism induced sales benefits from the profits generated by landscape (albeit indirectly). Here, then, it seems that methods that allow all who wish to participate the chance to do so might be appropriate.

The risk of cultural landscape planning exacerbating injustice in the Canadian context is very real, especially in designating landscapes where the dominant physical features have been created by settler populations. In the study area, the determining factor for whether a landscape should be conserved is related to its epistemological value; its contribution to our understanding of people, places, and events (PPS, S.6.0). Yet, as the cultural geographers have shown, landscapes can be sites of alienation, exclusion, and colonialism. The geography of the Region of Waterloo is no exception. Indigenous people have occupied the Region for millennia, and there have been controversial sales of land from the Six Nations leader Joseph Brant to non-Indigenous peoples, many of whom are of Mennonite faith. So then, if we were to uncritically designate areas emblematic of traditional Mennonite agricultural practices, what is the consequence to First Nation history, to their way of knowing? Would such a practice further alienate First Nations? Can we use planning theory to work our way across this impasse?

This is the greatest perceived challenge in conducting the current research project. How can we collaborate to identify cultural landscapes when there does not appear to be common ground for inter-subjective understanding within the study area? For the Six Nations, six miles on both sides of the Grand River is the site of a breach of law, the site of an illegal sale of land, and the site of fraudulent acquisition (Six Nations, 2008).[13] Yet municipalities in that portion of the watershed have carried out many planning initiatives, including identification of cultural landscapes (City of Kitchener, 2014). Planning theory tells us that we ought to include and empower the Six Nations in the identification of landscapes, facilitate intercultural understanding between all members involved, and work towards mutually agreed upon decisions.

Examining planning and cultural landscape theory has provided us with the beginning of a framework to evaluate methods for the identification of cultural landscapes in the Region of Waterloo. As we have seen, there appears to be a need for a method with the capacity to capture the detailed place specific lived experiences of those who dwell in the landscape. Furthermore, to address issues of alienation and exclusion, we ought to have a method that enables all who want to contribute to identifying such landscapes the chance to do so. The largest ethical challenge perceived prior to undertaking the research was the unsettled land claims of Indigenous peoples in the eastern portion of the study area; conceiving how shared understandings might surface for areas where there is an apparent deficit of inter-subjective meaning attached to the landscape presents a challenge. There remain other challenges that have not been addressed here. These include issues of developing incentives for people to get involved and creating a sense of relevance about the project in communities. Further, there are possible challenges in ensuring

[13] See Chapter IV for a more detailed discussion of the Haldimand Tract in the study area.

that powerful interests to not derail the process and recreate the issues planning theory aim to address. So then, the next question is, how has the public been involved in cultural landscape planning initiatives, and what methods appear to have the capacity to meet the criteria set out here?

Chapter III:
The Practice of Cultural Landscape Assessment

Since the 1960s landscape assessment has involved a variety of disciplines and professions, offering different theoretical perspectives and methods resulting in the generation of a seemingly diffuse assortment of studies and findings (Dakin, 2000). That so many disciplines partake in the evaluation of landscapes may not be surprising, considering that cultural landscape research is distributed across many research domains and is divided by disciplinary barriers (Bloomers et al., 2010). In spatial planning, the first studies were undertaken to develop maps of significant landscapes and scales of value for geographical analysis (Aoki, 1999). These early studies were focused on delineating areas for conservation by examining landscape elements. Using an on-sight observation technique, images or slides with photographs (taken from different vantages and/or at different focal distances and directions) were taken and presented to respondents who were directly asked how they use the area (Aoki, 1999).

This chapter will proceed by reviewing how CHLs have been identified in the Province of Ontario before turning to an examination of participatory cultural landscape literature from Europe. During the literature review process, a seemingly disparate field of research was identified that appears to be especially ripe for cross fertilization with cultural landscape planning; literature from ecosystem services research, especially cultural ecosystem services, seems to have much to offer to cultural landscape planning (Tengberg et al., 2012; Schaich, Bieling, & Plieninger, 2010). Much of the cultural ecosystem service literature takes a participant driven values-based approach that is geographically explicit – a methodology that aligns with our

research questions, the objectives purported in the planning literature, and the considerations arrived at through examining cultural landscape theory.

Examples of CHL Practice: Ontario

In the province of Ontario, there are legislated processes that trigger identification of CHLs, such as renewable energy approvals under the Environmental Protection Act (O. Reg. 359/09: S. 23) and the design and construction of projects that trigger an environmental assessment (MTO, 2007: S 1.1). Here, however, we are interested in how municipalities who have initiated the identification of CHLs have included the public. Some reasons for not examining how CHLs are identified through development are that CHLs are ignored or only dealt with in a perfunctory way by renewable energy developers in Ontario (Fast et al., 2016), and that the Ministry of Transportation does not recommend consultation beyond "relevant external agencies" like heritage committees and conservation authorities (MTO, 2007: S. 4.3). The rationales for initiating identification are also seemingly different between municipalities and actors triggering a CHL study through development; municipalities may gain in tourism, local economies, or in preservation and enhancement of a sense of place, while developers may lose out on a lucrative project and invariably undertake CHL studies as an additional cost. Thus, by examining how municipalities have inventoried their jurisdiction permits a survey of how the public have been included in identifying candidate CHLs, and an examination of methods used in contexts not unlike Wellesley and Woolwich townships.

There are several municipalities that have identified CHLs and/or implemented processes for new CHLs to be recognized. Here, we will provide a short overview of the methods used for

identifying landscapes other than those initiated through secondary plans (e.g. City of Milton, 2008), development review processes (e.g. City of Hamilton), block plans (e.g. City of Brampton), special zoning bylaws, heritage impact assessments, and conservation plans (City of Vaughn, n.d.), or other processes built into planning practices. Instead, we look to methods used by municipalities that have identified landscapes by inventorying their geography. The Town of the Blue Mountains, the City of Vaughn, the Town of Caledon, and the City of Kitchener, all located in Ontario, have undertaken CHL inventories. Each of those locations will be discussed in turn, before discussing the Region of Waterloo's framework for identifying Candidate CHLs and the participatory planning exercise that led to the boundary demarcation of the West Montrose CHL in the Township of Woolwich in that Region.

The Town of the Blue Mountains is a 287 km² lower-tier municipality in Grey County with a population of 7,025 people (Statistics Canada, 2018). The Town is poised for considerable wind energy development (see Figure 1). The assessment of cultural heritage landscapes was conducted in response to both the Towns' interests as well as an attempt to identify appropriate locations for wind energy facilities, known as the 'Renewable Energy Facility Strategy' (Town of the Blue Mountains, 2009). In order to identify proposed CHLs, the Town performed historical research (to identify

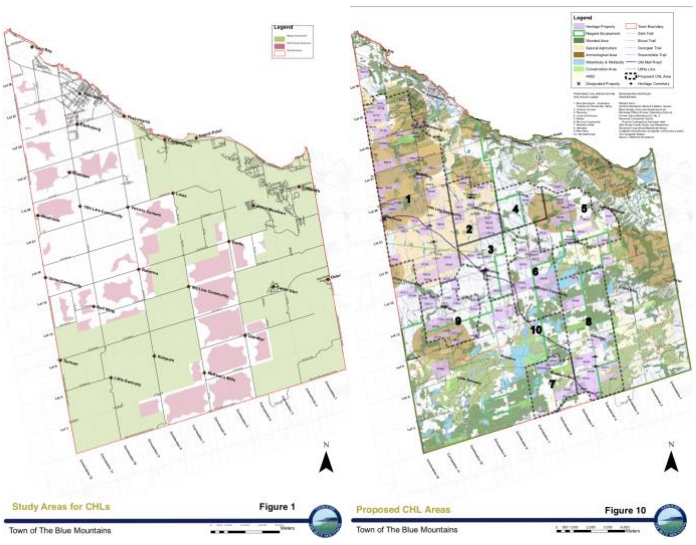

Figure 1. Map of the CHL study area (left) and the proposed CHL areas (right) in the Town of the Blue Mountains. Note that the pink areas on the left map are wind energy study areas (Town of the Blue Mountains, 2009).

historical themes); conducted a general survey of the area, undertook an inventory to examine the historic elements and the boundaries of the proposed CHLs, etc.; and confirmed the significance of proposed CHLs using Ontario Regulation 9/06 (Town of the Blue Mountains, 2009). O. Reg. 9/06, titled "Criteria for Determining Cultural Heritage Value or Interest" is used for designation or listing of heritage properties by municipalities under the Ontario Heritage Act. Based on the inventory, evaluation, and the criteria for identifying CHLs in the Town, there does not appear to have been a role for the public in the process. The Town identified 10 candidate CHLs which account for a significant percentage of the total land area (see Figure 1, right).

The City of Vaughan – which has a population of 306,233 people and is 274 km² in size (Statistics Canada, 2016) – also relied on a series of steps to identify potential CHLs. They began with identification of historical themes, and then reviewed previously completed environmental assessment and planning studies to compile areas already identified as potential CHLs; reviewed their heritage inventory in conjunction with aerial mapping to identify additional candidate CHLs; consulted with the City's heritage staff, and; carried out a brief windshield survey of selected properties to confirm historical integrity (see Figure 2 for identified landscapes, City of Vaughan, 2010). Again, in the case of Vaughan, there does not appear to have been a role for the general public in inventorying candidate CHLs.

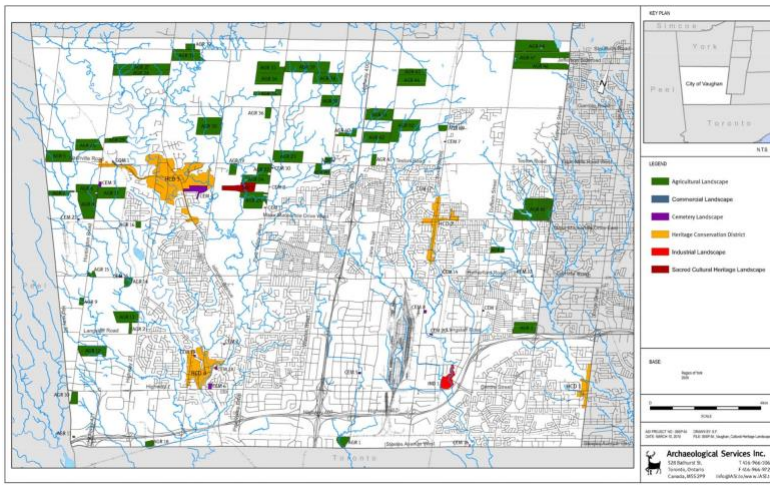

Figure 2. Map of identified resources for inclusion on the City of Vaughan's CHL inventory. Note, the yellow areas have already been designated as Heritage Conservation Districts under Part V of the Ontario Heritage Act. Source: City of Vaughan, 2010

That both Vaughan and the Town of the Blue Mountains developed historical themes in the early stages of the identification process and used a well-defined series of steps is possibly explained by a publication by the Ontario Ministry of Tourism, Culture, and Sport (MTCS). In the CHL InfoSheet, the MTCS states that CHLs are identified through historical research, including the consultation of maps, land records, and other sources; by doing site survey and analysis such as windshield survey to delineate the landscape boundary, and; by evaluating the landscape using criteria pursuant to section 29(1) (a) of the Ontario Heritage Act (i.e. O. Reg. 9/06) (MTCS, 2006). Each of the above examples, as well as elements from those that follow use the MTCS framework, to various degrees.

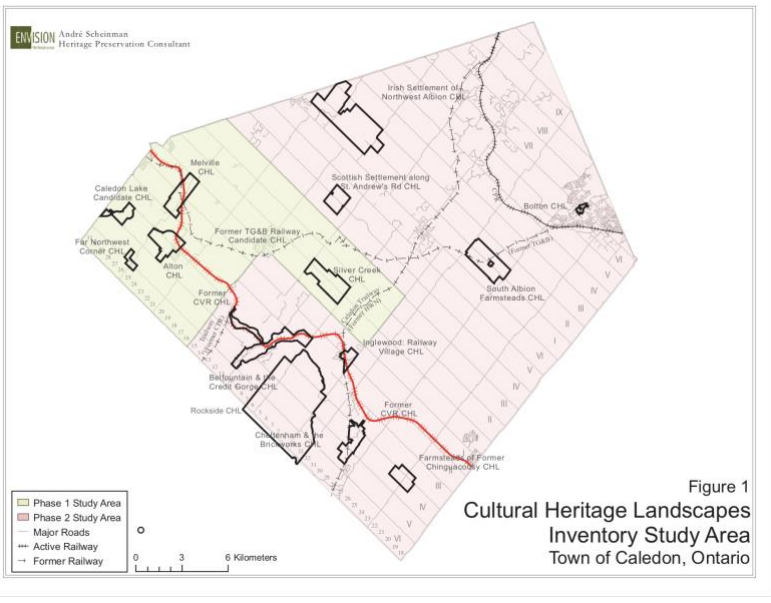

Figure 3. Potential CHLs identified in the Town of Caledon. Source: Town of Caledon, 2009

The Town of Caledon – a lower-tier municipality in the Regional Municipality of Peel – relied on a process similar to that of Vaughan and the Blue Mountains (See Figure 3 for a visual of the landscapes identified). The Town of Caledon is 688 km² in size and has a population of 66,502 people (Statistics Canada, 2018). In their *Criteria for the Identification of Cultural Heritage Landscapes*, the Town recommends that a complete inventory be undertaken, and that the process should proceed with "expert and informant involvement and should include a high degree of public input" (Town of Caledon, 2003). However, when the time came to inventory

potential CHLs in the Town, the areas that were identified were initially determined through a combination of general research and windshield survey, and after narrowing the landscapes to those that warranted further study, the landscapes were analysed with formal criteria (Town of Caledon, 2009). So, while the Town's 2003 criteria suggest there ought to have been a high degree of public input in CHL identification, that does not appear to have been realized when put into practice in the 2009 study.

The City of Kitchener, on the other hand, did include the public in the identification of candidate CHLs, albeit once a list of potential sites was already identified. The City – with a population of 233,000 people over 137 square kilometers – conducted an award winning CHL study in 2014. In that study, City staff identified 57 preliminary sites that were then refined and reduced to 55 sites by the consulting team conducting the study. However, the team also held two open houses which described the study and presented the 55 sites, as well as distributed a questionnaire at the first meeting and through the City's website (City of Kitchener, 2015). So, while the public was not at the forefront of identification, they were provided with the opportunity to comment, critique, or suggest alternatives to the landscapes identified by City staff and the consulting team. To determine community value, the City of Kitchener used indicators. These included demonstration of pride and stewardship (plaques, voluntary upkeep, etc.), areas of commemoration, and areas widely recognized as a landmark (see City of Kitchener, 2015, Appendix D).

The Region of Waterloo – the upper-tier municipality to the City of Kitchener and the location of the current study – has several policy documents guiding conservation of CHLs. The Regional Official Plan contains policies establishing goals, objectives and roles and responsibilities for CHL conservation. The *Regional Implementation Guideline for Cultural Heritage Landscape Conservation* (2013) sets out, amongst other items, the guidelines associated with the key steps of CHL conservation (Table 1). The *Framework for Inventory, Assessment and Policy Development* (2006) establishes a recommended procedure for the identification of candidate CHLs in the Region. The procedure set out therein is not unlike the steps taken by Vaughan, the Blue Mountains, and Caledon. They are:

Table 1. Key Steps and Associated Guidelines for the conservation of CHLs in the Region of Waterloo. Source: Region of Waterloo, 2013.

Key Steps	Associated Guidelines
1. Identify Candidate CHLs	Guideline for the Identification and Evaluation of CHLs
2. Inventory and Map Individual Candidate CHLs	
3. Evaluate Candidate CHLs Significance	
4. Determine Regional interest in Candidate CHLs	
5. Document the Candidate CHL in a Technical Study	Guidelines for the Preparation of the CHL Technical Study
6. Designate the CHL in the Official Plan using the Official Plan Amendment Process under the Planning Act	Guideline for Designating CHLs in an Official Plan
7. Conserve the CHL through land use and infrastructure planning processes	Guideline for the Conservation of a CHL through a Cultural Heritage Impact Assessment

- Conducting **historical research** using secondary sources and/or archival material;
- **Establish the historical context** of the area to determine historic themes or associations;
- **Visual survey** of the landscape to confirm the presence of heritage features;
- **Consultation with the community**, to determine places of value;
- **Screening** of potential sites against preliminary criteria such as historic themes;
- **Listing** of candidate cultural heritage landscapes;

Using the procedure provided in the *Framework*, the Region identified a list of candidate CHLs in the Region, but did not include archival research, detailed investigation, or in-depth consultation with local communities. The report posits that such research could reveal additional candidate CHLs (Region of Waterloo, 2009). Application of the steps described in the *Framework* led to the creation of map with candidate CHLs (added below as Figure 4). The extent of consultation with the community is summarized as, "some candidate sites were suggested by Regional and local municipal Staff, and through consultation activities with the Region's Heritage Planning Advisory Committee, and Local Heritage Advisory Committees" (Region of Waterloo, 2009).

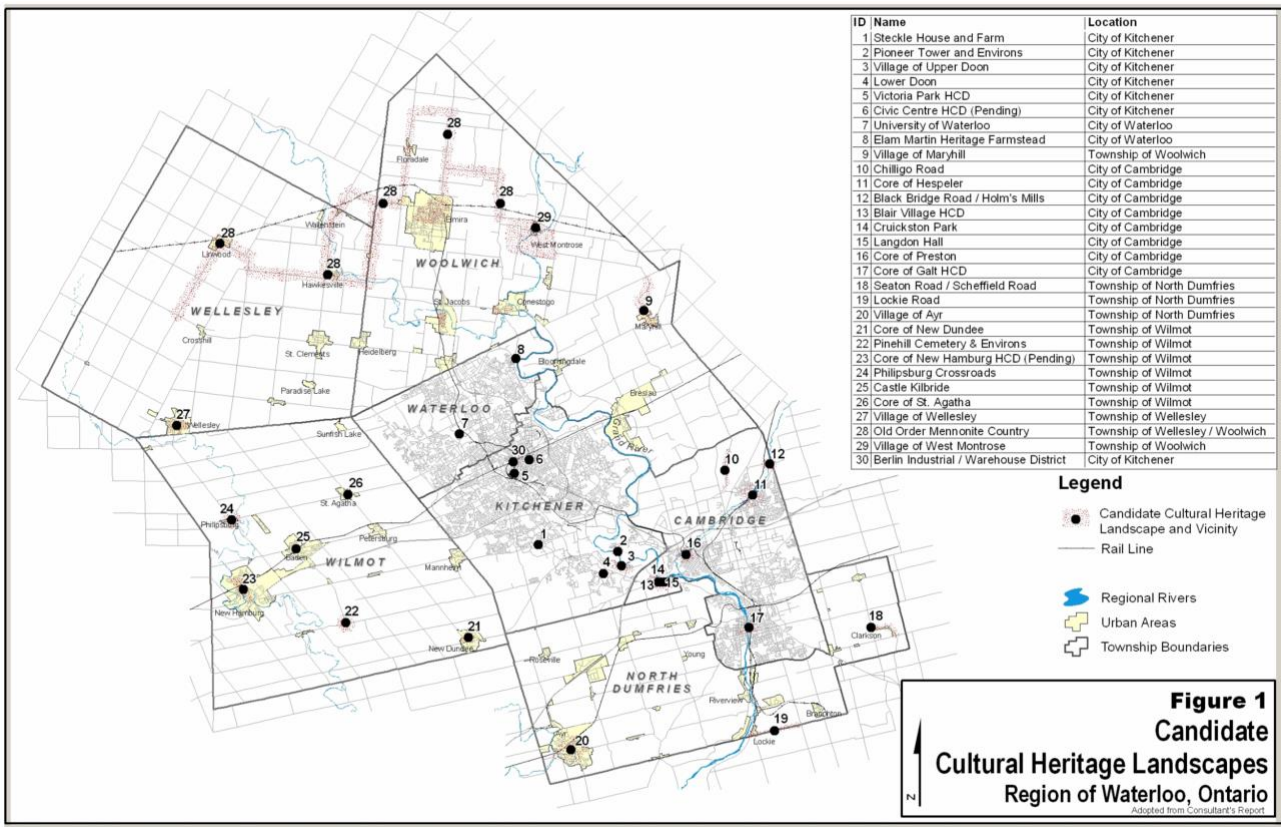

Figure 4. Map of Candidate CHLs in the Region of Waterloo. Note the dotted areas (ID 28) in Wellesley and Woolwich are considered 'Mennonite Country', ID 29 is the West Montrose Candidate Site, and ID 9 is the Village of Maryhill. Source: Region of Waterloo, 2009.

Although the role of the public was limited to the local heritage committees and Regional and municipal staff in the identification of these candidate sites, the *Framework* recognizes the importance of demonstrating community values:

> A demonstration of ***'valued by the community'*** is an essential component of identifying cultural heritage landscapes and is required by definition in the Provincial Policy Statement. The notion of heritage conveys a legacy of natural and cultural elements that provide a sense of community and place. The heritage resources of a community include its distinctive cultures, traditions, landmarks, landscapes and built structures. All of these attributes are embodied in cultural heritage landscapes.
>
> Individual communities exhibit unique cultural and heritage qualities that define their local character and reflect the stories of the people and events that have shaped it. The identification of those special places that hold aesthetic, historical, social, or spiritual values for past, present or future generations, is key to the determination of cultural heritage landscapes that are 'valued by the community'.
>
> Ongoing consultation with local heritage associations, cultural organizations and members of the public throughout the identification and designation process is, of course, a key method of ascertaining community cultural values, and the buildings, open spaces and traditions that embody them.
>
> (Region of Waterloo, 2009)

One participatory CHL study in the Region did put this rhetoric into practice. To demarcate the boundaries around the West Montrose CHL that was identified as a candidate site in the *Framework*, Shipley and Feick (2009) held two focus groups with local residents which informed the development of a web-based survey. The web-based survey was intended to reach a wider cross section of the residents than the focus groups, as well as interested individuals from the surrounding area. Through the web-based survey, Shipley and Feick received 132 valid responses for the identification of the CHL boundary, and of the respondents answering questions about the site's significance, 90% strongly agreed that the site is locally significant. The successful implementation of a broad and inclusive participatory approach to examining the extent and significance of the West Montrose CHL appears to be an exception in cultural landscape planning in Ontario. And, while the West Montrose CHL is exemplar in demonstrating community value and the possibility of participatory boundary identification, it did not use public participation to identify the site. As will be shown below, much of the participatory cultural landscape planning in Europe also involves the public only after experts have identified an area as a cultural landscape.

Participation in Cultural Landscape Studies: Europe and Beyond

The European Landscape Convention (ELC) requires each party to "establish procedures for the participation of the general public, local and regional authorities, and other parties with an interest in the definition and implementation of the landscape policies." Thus, the ELC provides policy for the inclusion of a wide interpretation of the public as not just communities proximate to a given landscape and expert organizations that are part of formal decision-making processes,

but also those characterized as "other parties with interests." However, although the ELC is explicit in requiring a participatory approach, the Convention's own Explanatory Report paints a different picture (Olwig, 2007; Jones, 2007). The Explanatory Report recommends "performing the evaluation according to objective criteria first" and then using those results in comparison with assessments from the general public and interest groups. The explanation for this is the "inevitably subjective and varying public perceptions of landscape" (Jones, 2007).

In practice, it seems that the implementation of public participation is not keeping pace with policy. For example, Norway – amongst the first countries to sign the ELC (Eiter & Vik, 2015) – is committed to the implementation of public participation in relation to the ELC and other international and national participatory policy (Daugstad, 2011), but the "focus on democratization, participation and involvement has so far had no major influence with the field of Norwegian heritage practice" (Mydland & Grahn, 2012). Although stakeholders are often invited to participate, their contributions are largely absent from official plans at the final stage (Swensen, Jerpåsen, Saeter, & Tveit, 2012).

The level of public participation in landscape research is also underwhelming. Based on review of all papers published (N = 934) in three landscape journals over six years (1995-1997 & 2004-2006), Conrad, Christie & Fazey (2011) found that 84% of studies did not engage with any stakeholders. Their results suggest that "participatory emphasis of landscape policy is not being given equal priority in landscape research, which remains, to a large extent, the sole domain of scientific 'experts'" (Conrad, Christie & Fazey, 2011: 2106). The dearth of landscape literature that includes public engagement is further complicated by the nature of our research question:

While we are interested in identifying areas that are valued for the purpose of conservation, much of the landscape literature generated in Europe uses public participation in scenario development (used to describe different kinds of desired or undesired future states [Tress & Tress, 2003]).

In a 2011 publication titled, *The European Landscape Convention: Challenges of Participation* several of the contributing authors describe participatory approaches to landscape projects. Michelin, Joliveau & Planchat-Hery (2011) describe four studies conducted in France aimed at eliciting landscape preferences from various stakeholders. Three of the four examples used face-to-face interviews, in combination with public meetings, worst-case scenarios, public exhibitions, or focus groups, with the latter appearing in two of the three studies. Planchat-Hery (2011) describes the use of meetings and questionnaires to determine what people want to see appear or disappear from the landscape, and Ramos (2011) discusses the use of interviews with experts to develop scenarios and subsequent interviews with stakeholders to determine preferred alternatives in a study in Portugal. In each of these examples, there were also visual stimuli used (models, pictures, etc.). Ramos (2011), for example, uses written, verbal, and visual aids in scenarios with stakeholders.

In other works, interviews and a journaling method have been used to examine the social barriers to participatory landscape development in Switzerland (Buchecker, Hunziker & Kienest, 2003); interviews and a survey were used to examine the psycho-social effects of participatory planning in Switzerland (Höppner, Frick & Buchecker, 2007) and; interviews, along with informal conversations, observation of stakeholder behaviour and a questionnaire were used to

obtain information of the perception of problems by various stakeholders (De Groot, 2006). While some maintain that participatory approaches are most applicable to targeted situations and that expert-based approaches remain more efficacious (Selman, 2004), some of these examples seem to challenge that finding. Yet, although the suite of methods seems to be limited, with interviews and questionnaires being most common (Conrad, Christie & Fazey, 2011), there is little literature that examines public participation in explicit connection with the ELC (Jones, 2011) and, there is a shortage of literature implementing public participation for the *identification* of cultural landscapes. However, some cultural ecosystem services literature does take a participatory approach to the identification of valued ecosystems and ecosystem components, which aligns with our research questions.

Public Participation and Cultural Ecosystem Services

The term "cultural ecosystem services" (CES) is derived from the 2003 Millennium Ecosystem Assessment (MEA), which defines CES as the "nonmaterial benefits people obtain from ecosystems through spiritual enrichment, cognitive development, reflection and aesthetic experiences" (MEA, 2003: 58). The MEA recognizes that the diversity of ecosystems influences the diversity of cultures; that there are spiritual and religious values attached to ecosystems and ecosystem components, and; that traditional and formal knowledge systems are influenced by ecosystems. That ecosystems are sources of education, aesthetic values, folklore, and social relations; provide inspiration for art, a sense of place, recreation, and local economic development through ecotourism is also recognized in the MEA. For "cultural heritage values", which are directly related to CHL policy in Ontario, the MEA states that "many societies place

high value on the maintenance of either historically important landscapes ('cultural landscapes') or culturally significant species" (MEA, 2003: 59).

The direct link between cultural landscapes and cultural ecosystem services is bolstered by several other observations as well. First, landscapes are ecosystems, i.e. complex systems of biotic and abiotic elements (Schaich, Bieling, & Pileninger, 2010). The research agendas of CES and cultural landscape are also nearly identical: both concentrate on the human dimension of the environment (Schaich, Bieling, & Pileninger, 2010) and both are interested in the demands placed on, and benefits derived from, landscapes or ecosystems (Tengberg et al., 2012). These observations illustrate that the apparent ontological differences between cultural landscapes and ecosystems may be socially constructed and a false dichotomy, especially if a human perceiver is present. Yet, cultural landscape and CES literature appear to be characterized by low levels of cross-fertilization and relatively rigid disciplinary boundaries. Moreover, cultural landscape policy has taken a participatory turn and evidence suggests that cultural landscape research has not kept pace (Conrad, Cristie & Fazie, 2011; Jones, 2011), but some CES literature *has* been occupied with identifying valued areas for conservation through public and stakeholder participation. Several authors have suggested linking the ecosystem services agenda with landscape planning (Schaich, Bieling & Plieninger, 2010; Tengberg, et al., 2012; Steiner, 2016), especially at a conceptual level. There has also been a symposium in Australia aimed at linking of these seemingly disparate disciplines, titled "Sustainable Landscapes and Natural Capital: Bridging Disciplines, Approaches and Applications" (De Groot, 2006).

CES research has occupied itself extensively with methods of ascertaining community value through proxy or via direct participatory engagement. Many of the former methods are expert based. For example, economic valuation of recreation in cultural landscapes (Ruiz-Frau et al. 2013); willingness to pay and travel cost estimates (van Berkel & Verberg, 2012), and; hedonic pricing (Sander & Haight, 2012) have been used to ascertain values of cultural practices in the absence of communicative elicitation of spatially explicit values. However, many observers find that CES are incommensurable with economic valuation techniques (Chan, et al., 2012; Chee 2004; Cooper et al., 2016), but non-economic valuation techniques that are also expert-based have been used to identify CES as well. Edwards et al. (2012) has explored the use of a Delphi survey in the European Union and Bieling and Pileninger (2013) adopted a field walking approach to tally the tangible remnants of CES as indicators (such as a fire ring serving as an indicator of cultural value). Other expert-based approaches have been occupied with the landscape typology as an indicator of value, such as percentage of forest cover related to social value (e.g. Church et al., 2014).

More experiential and participatory approaches to landscape valuation are also prominent in the CES literature and appear apt for application in our research framework. These often take the form of participatory mapping exercises during semi-structured interviews (Darvill & Lindo, 2015; Gould et al., 2015; Raymond et al., 2009), or through use of computer-based GIS technology and questionnaires (Brown & Montag 2012; Brown & Weber, 2011). These methods, which are geographically explicit, and participant driven, are commonly called 'public participation Geographic Information System,' or PPGIS. The term PPGIS was conceived in 1996 at a meeting of the National Center for Geographic Information and Analysis, and is goal

oriented towards including and empowering marginalized populations (Brown & Montag, 2012), which aligns well with the ethical stances of communicative planning theory, as well. There are many variations to PPGIS, which can stem from different research questions and objectives, such as the choice of map attributes (what is mapped?), purpose (the reason for sampling), technology (how mapping is done), sampling (who does the mapping?) and, location (Brown & Kytta, 2014).

Conducting paper-based mapping exercises during interviews to identify CES in the landscape has been explored by several authors. Darvill and Lindo (2015), for example, conducted semi-structured interviews with 31 participants. These interviews relied heavily on a mapping exercise wherein the participants drew a total of 891 polygons around areas that represented perceived ecosystem services in the Hudson Hope area, British Columbia. Others have used a similar method for seascapes of northern Vancouver Island (Klain & Chan, 2012); for a cultural landscape in Eastern Germany (Plieninger et al., 2013); for forested areas in Hawaii (Gould et al., 2015), and; for a cultural landscape in Zanzibar, Tanzania (Fagerholm & Kayhko, 2009).

In the studies using interviews and paper-based PPGIS, the number of participants, recruitment strategies, as well as the method used, varied. For example, some researchers asked participants to delineate sites on a paper-based map using markers (Fagerholm et al., 2012; Klain and Chan, 2012), others have used color coded stickers for identifying ecosystem services on a map (Raymond et al., 2009) and others again have preidentified sites and then asked participants about those areas (Pleininger et al., 2013). The number and type of participants also vary across

the studies. Some researchers adopt a goal of conducting interviews until additional interviews repeat concepts addressed in previous interviews, which is often reached between 20 and 30 interviews (Gould et al., 2015), while others interview as many as 150 participants (Fagerholm & Kayho, 2009). In some studies, participants are selected because they live in the landscape being studied (Plieninger et al., 2013), while others seek participants whose profession and/or means of livelihood are linked to the landscape (Klain & Chan, 2012). However, the most common sampling method has been random landowner or household sampling within the study area (Brown & Fagerholm, 2015).

Another method used for identification of CES, is web-based PPGIS. Web-based PPGIS relies on online mapping systems, such as Google Maps, and asks participants to identify cultural ecosystem services on a digital interface. Some studies have relied on dropping pins on the map that correspond to CES value domains (such as dropping a pin titled 'recreation' on a place used for hiking), while others have asked participants to draw polygons around areas of value (Brown & Fagerholm, 2015). Web-based PPGIS is seen as an affordable and accessible tool for providing location-based information (Tang & Liu, 2015), but is not without challenges in attracting participants, with response rates often around 13% (Brown and Montag, 2014). Good examples of this method in action are Brown and Weber's (2011) study of CES in national parks in Victoria, Australia and Brown and Montag's (2012) study examining CES in Grand County, Colorado.

In the latter study, Brown and Montag (2012) developed a web-tool enabling participants to drag and drop pins corresponding to different ecosystem services as well as to complete a

follow up survey. They sent an invitation letter detailing the purpose of the study and an access code to the web-survey to a random sample of 486 households. After 3 weeks, households that had not responded were contacted by phone. Of the invitations sent, there were a total of 58 full or partial responses (completed the mapping, not necessarily the follow up survey), for a response rate of approximately 12%, which is not dissimilar to the response rates of Brown and Weber (2011).

One of the challenges cited in the CES PPGIS literature is that of participant's ability to communicate landscape values to researchers. This may be because people are not consciously aware of cultural landscape values, and even if they are aware, they may find it difficult to express these through interviews or the web-based tools (Beiling & Plieninger, 2013). A tool that may skirt the challenges associated with articulation of cultural landscape values is photography. 'Photo-voice' or 'photo-elicitation' has been forwarded in planning literature for park planning (Boone, 2015), neighbourhood walkability (Mitra, Siva & Kehler 2015), and for forest management (Dandy & Van Der Wal, 2011; Dakin, 2000). For example, in Dakin's (2000) study, self-directed photography, journaling and follow-up interviews were used to demonstrate pubic values in the Caribou-Chilcotin Region in the context of British Columbia's Visual Resource Management program. One of the main aspects of sense-of-place revealed through this study was that landscape was, for some respondents, heritage: "participants remarked how landscapes comprise a legacy of human and natural activities and processes" (Dakin, 2000: 193). Prior to conducting the current study, it was determined through ongoing conversations with the project steering committee that photo-voice may have the ability to ameliorate some of the challenges associated with communicating intangible landscape values.

Despite the challenges associated with participatory CES research, it does seem to provide a framework for identifying valued landscapes through participatory methods. Which method, or which combination of methods might be best suited for our study area, remains unknown. The use of semi-structured interviews might have the ability to uncover some of the lived experiences of landscapes, as well as the stories, narratives, or associations that define the meaning of landscapes to people who reside therein, akin to Ingold's (1993) ideas. However, a considerable shortcoming of interviews is the scalability, that is, the number of people that could participate is limited by the time of the researcher. For this reason, it seems that an accompanying web-based PPGIS instrument could be implemented for uncovering the voices of all who may want to participate from the leisure of home. For some, the conveyance of detailed and personal values is challenging to communicate (Beiling & Plieninger, 2013), which could be ameliorated through the use of photo narratives. Finally, the use of technology is marginal for many of the Mennonite residents in the townships, who also choose to abstain from municipal, provincial, or federal politics (Drescher, Feick, DeGeer, & Shipley, submitted). For this reason, it is thought that another method may be appropriate for our study area, particularly one that can be conducted without the use of electronic devices and without the presence of researchers, such as a self-directed focus group method.

Chapter IV:

Methods and Study Area

Study Area

The current research sought to identify CHLs in the townships of Woolwich and Wellesley in the Region of Waterloo, which is located in southwestern Ontario, Canada (Figure 5). Together, the townships are 604 km² in size and have a combined population of 36,266 people (Statistics Canada, 2018). A total of 10,161 people reside in a population centre called Elmira in the Township of Woolwich that is 7.87 km² in size, with the remainder of the study area being predominantly rural agricultural with several small villages.

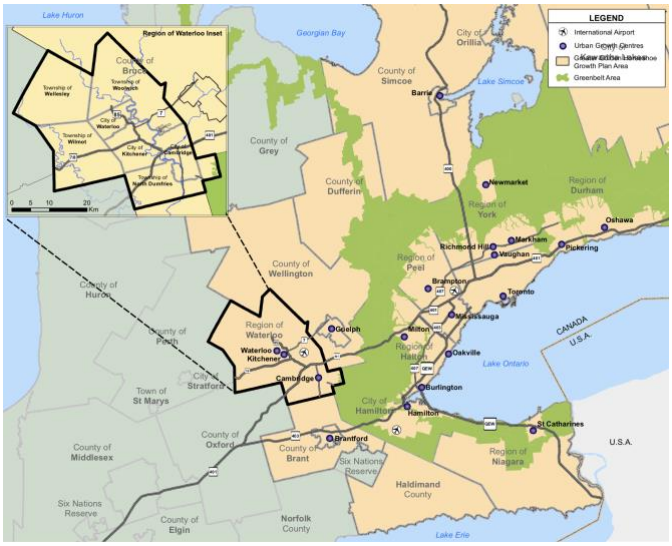

Figure 5. Region of Waterloo, regional context. Source: Region of Waterloo, 2015.

Human habitation of the Region of Waterloo dates thousands of years into the past, with the earliest archaeological site dating to approximately 9,500 years ago (Region of Waterloo, 2009). European fur traders first came into contact with Indigenous peoples in the Region in the late 1700s. In 1784 the British Crown granted lands along the Grand River (including much of Woolwich Township) to the Mohawk Nation and other Six Nation Indigenous peoples as compensation for the lands they had lost in the United States and for their loyalty to the Crown during the American Revolutionary wars.

Figure 7. Map of the Haldimand Tract. Source: Six Nations, 2008.

The lands granted to the Six Nations included six miles on either side of the Grand River – for a total of approximately 950,000 acres – called the Haldimand Tract, named after lieutenant general Fredrick Haldimand who issued the decree on behalf of the British (Figures 6 and 7). Under Royal Proclamation, the Tract was to be held in trust for the sole use of the Six Nations, meaning that land could not have been transferred without consent of the Six Nations and the Crown (Six Nations, 2015). By the late 1790s, however, Joseph Brant – a Mohawk military and political leader – was convinced that Indigenous people had to practice European-style agriculture and sold significant portions of the Tract to new immigrants, despite the complicated controversy over the nature of land tenure and discontent among some of the Grand River First Nations at the time (Allen, 2008). Through a series of transactions, much of these lands were sold to Mennonites from Pennsylvania in the United States (WRM, 2018).

Figure 6. A painting by Barry McCarthy of the West Montrose Covered Bridge in the village of West Montrose. The bridge is at the heart of the West Montrose CHL and is also within the Haldimand Tract. Image reproduced with permission.

Figure 9. Two men stooking grain in the Township of Wellesley.

Contemporarily, the cultural traditions of conservative Anabaptists or "traditional" Mennonites define the dominant physical and spiritual associations in the townships. Physically, the customary practices of traditional mixed farming (Figure 8) on 100-acre lots with well-maintained woodlots in the 'back 40' of properties are a prominent feature (Figure 9). These characteristics are (re)produced by traditional agriculture practices and there is a reliance on firewood for cooking and winter heating, which are integrated with a spiritual way of being. The country-side is dotted with non-descript white meeting houses, with lines of chain on pillars for horse drawn vehicle parking. The downtown of the largest urban area maintains a large horse shed so that those espousing traditional Mennonite values who work in or visit the area may have sheltered parking for their horses during the day. Low level temporary bridges and other shortcuts developed for horse and buggies can be found throughout both townships. The Mennonite traditions in the townships are culturally and historically unique in the province, and perhaps the country, yet their histories are interwoven with many other early settlers: Scottish, British, African Americans, and others who have forged their cultural presence and historical legacy into the landscapes. While

Figure 8. An image of the Wellesley countryside and the Conestogo River, taken from the village of Hawkesville. In the bottom centre of the image, a horse drawn vehicle is pictured. Note the relative quantity of agricultural properties in the field of view.

these interwoven histories may, at times, be obfuscated by the uniqueness of Mennonite presence in the Region, they are integral to CHLs and early development in the study area.

The Grand River and two pronounced tributaries – the Conestogo and the Nith rivers (Figure 10) – flow through the study area. The Grand River and its main tributaries were identified as Canadian Heritage Rivers in 1994, which recognizes outstanding human heritage values as well as the excellent recreational opportunities along the rivers (GRCA, 2013). The Grand and Conestogo Rivers are both stocked with brown trout and serve as a tourist destination attracting international attention from anglers. The rivers were foundational to the development of settlements in the townships, as milling industries, associated mill races, shops and hotels supported the development of agriculture.

Figure 10. A horse drawn vehicle and the Conestogo River. This image was taken facing west on Hemlock Hill Drive, Woolwich Township.

Methods

Four qualitative methods were used to explore and understand the meanings and values individuals and groups ascribe to the landscapes of the townships. The research adopted a constructivist worldview, which recognized that individuals develop subjective meanings that can be varied and multiple (Cresswell, 2014). The four methods selected were: i) one-on-one interviews, ii) a quasi-focus group instrument that could be conducted with or without a researcher present, iii) a web-based survey, and iv) photo-voice. Each of the methods had a geographically explicit mapping element built in so that the research team could use geographic information software to visually display the locations identified by participants on a single map. To evaluate and compare the methods for future application, a qualitative approach was also adopted. Participants were asked to evaluate the method they were a party to in an evaluative survey (see the following section), and the research team evaluated the quality and depth of information collected from the instruments *a posteriori*.

Research instruments were informed by a review of planning theory, cultural landscape theory, as well as cultural landscape and cultural ecosystem service literature, with emphasis on the latter source. The research was approved by the Office of Research Ethics at the University of Waterloo (ORE # 22344) and was deployed in the townships after careful consideration by a steering committee, research associates, and faculty members. The instruments were not piloted, however, for relevance, comprehension, or complexity of language with members of the public unfamiliar with the practices of planning. The steering committee included planners from the area municipalities and the Region of Waterloo, members from the Woolwich Heritage Committee and the Wellesley Heritage and Historical Society, a representative from the

Architectural Conservancy of Ontario, and the director of the University of Waterloo's Heritage Resource Centre.

Demographic and Evaluative Surveys

For three of the four methods (photo-voice, web surveys, and focus groups), participants were asked to complete a demographic survey and a survey evaluating the method they participated in (Appendixes 1 and 2). Focus group members were provided the surveys in addressed and stamped envelopes and asked to complete them at their discretion, while the surveys were built into the web-based and photo-voice instruments to be completed immediately after the exercise. The demographic survey was informed by Brown and Reed's (2012) study in the Coconino National Forest. At the time of developing the survey, the research team participated in the Coconino National Forest study (without submitting results) so we could draw on the demographic survey aspect of Brown and Reed's (2012) study.

The evaluative survey was designed to provide the researchers with information about participant experiences of the method they were a party to, to enable evaluation of the methods and possibly refined for future application. It was decided that participants to the interview instrument would not be asked to fill out demographic or evaluative surveys because of the personal nature of the interviewee-interviewer relationship and the uncertainty of the number of interviews that would be conducted (if, for example, the interview method was only able to recruit 5 participants, personal information about the respondent would be identifiable to the researcher, which was considered too invasive once one-on-one rapport was established). Moreover, the strength of one-on-one interviews to elicit landscape/ecosystem values has been established in the literature (see Chapter III) and interviews were developed with the additional

purpose of eliciting an understanding of what it means to dwell in the landscapes of Woolwich and Wellesley, an anticipated challenge on its own.

Interviews

Although the term "interview" did not come into use until the seventeenth century, using dialogue and conversation to obtain systematic knowledge can be traced to antiquity; Socrates developed philosophic knowledge through dialogues, and the historian Thucydides documented the Peloponnesian wars using interviews (Kvale, 2007). Interviews are a common research method in the social sciences, and there is a large body of methodological literature on the instrument. However, there are few standard rules or common methodological conventions for qualitative interviews, with nuances dependent on the purpose and topic of investigation (Kvale, 2007). Nonetheless, interviews can be categorized into three general types:1) informal conversational interview, which take place as casual conversations with individuals or groups; 2) the interview guide or topical approach, which is somewhat structured with the interviewer prepared with a list of topics or questions; 3) the semi-structured and standardized interview asks specific questions in a sequence, and; 4) constructed or dialogic interview where both the interviewer and interviewee generate new meaning together (Marshall & Rossman, 2016).

In the first several interviews conducted in the current research, participants were prompted with value domains derived from the cultural ecosystem services literature, following the semi-structured interview protocol established by Gould et al. (2015). The value domains included aesthetic, cultural, heritage, spiritual, educational, intergenerational, and natural. After being provided with a brief description of these non-discrete value domains, participants were

asked if a location on a map matched the value, and if so, to identify it with a dry erase marker. This "impositional strategy" or "closed" format – where a predetermined list of themes and questions where covered (Barbour & Schostak, 2005) – was found to obfuscate meaningful expression and was amended. Instead, participants were asked what they valued and where it was in an open-ended fashion, which was found to be more successful at eliciting meaningful expression. Using the open-ended interview protocol also allowed the researcher to follow-up with categories from the CES literature, as appropriate (see Raymond et al., 2009 for a similar approach). Since we were not interested in quantifying what values corresponded to landscape typologies, such as aesthetic values correlating to forested areas (e.g. Plieninger et al., 2013) or in the number of times a value domain was mentioned, the topological interview protocol was found to be well suited for our application.

Open-ended topological interviews were used to gain a richer understanding of geographical locations, values, interests, stories, history and heritage attributes of a particular landscape. Interviews began with a general conversation touching on matters such as place and length of residence, family structure, and activities that the interviewee enjoys or participates in. Afterwards, the interviewee was presented with a map of the township of their choosing (Woolwich or Wellesley) or both maps (one after the other if the participant was responding to both townships). Participants were then asked to identify an area that was valuable to them by drawing a polygon around the geographic extent of the area. The maps were made using ArcGIS and displayed forested areas, waterways, waterbodies, roads with easily identifiable names, cycling routes, and place names of the various towns, villages, and hamlets in the townships. The

maps were plotted on 60 cm by 90 cm paper, laminated, and mounted to foam board.[14] The interviewer never stated a place name or activity unless it was in follow-up to a place name or activity already identified by the participant.

Interviews were audio recorded and transcribed verbatim based on individual permission. Interview data were then coded for place names and value domains using qualitative analysis software, MAXQDA Analytics Pro (VERBI Software, 2018). Both a closed- (predetermined codes) and open-coding protocol were adopted (Corbin & Strauss, 1990). The closed coding regime was developed to attach comments to the geographic area being discussed (e.g. when someone spoke about a settlement, that section of data would be coded with the settlement name). Open coding was informed by emerging insights and themes and was informed by cultural landscape and communicative planning theories (see Chapter II). The open coded segments were subsequently axially coded to streamline findings.

Focus Groups

A focus group is a research method wherein a small group of participants are gathered to discuss an issue under the guidance of a moderator (Wibeck, Dahlgren, & Öberg, 2007). The discussions that take place are typically audio recorded, transcribed, and analyzed. Especially valuable for their ability to allow the researcher to study how people engage in the construction, expression, defense, and modification of views, the focus group method is based on the dynamics of communication, language, and thought (Wibeck, Dahlgren, & Öberg, 2007).

[14] The scale for the Wellesley Township map was 1:38,000 and the scale for the Woolwich Township map was 1:48,000. The difference in the scales was due to the size and the shape of the townships.

The use of focus groups can be traced back to 1926 when Emory Bogardus described group interviews in his social psychological research (Liamputtong, 2011). Although initially developed for academic research, focus groups became more synonymous with market research by the 1950s, but have since been gaining in popularity with medical and social science researchers (Liamputtong, 2011). Two general types of focus groups can be discerned: a structured approach wherein the moderator actively contributes and prompts the participants which is typical of results-driven market research, and a less structured approach where participants are encouraged to talk to each other, which is aimed at understanding meaning and interpretation for social scientific inquiry (Liamputtong, 2011).

The current use of the instrument did not seek to examine the construction, form and alteration of views, but rather, more crudely, sought to understand the solutions that emerged and to examine – in a non-statistical way – the correlations between respondent groups. The quasi-focus group instrument was developed so that it could be completed without the presence of a researcher which was considered a priori as a desirable feature for engaging with the Mennonite population in the study area who do not traditionally participate in federal, provincial, or municipal political decision-making processes.

After a general introduction of concepts and purpose of the exercise, focus groups were asked to divide themselves into manageable sub-groups of 3 – 7 people, and each sub-group was provided with a map of the township of their choosing (Woolwich or Wellesley). The maps were the same as those used in interviews but were not laminated or affixed to a foam board. The groups were asked to select a group leader who would direct the rest of the group in completing

the exercises. After reviewing some of the definitions of cultural landscapes, the sub-groups were asked to identify a landscape on the map using colored pencils and markers. After identifying a valued location, the group was asked to fill out a discussion form about the place they identified. The discussion form asked several questions, such as if the place they identified conformed with the PPS definition of a CHL, as well as if it passed the test of "significance" for a cultural resource as found in the PPS (demonstrate cultural heritage value or interest for the important contribution it makes to an understanding of the history of a place, an event, or a people). The participants were also asked to circle CES value domains (the same as those prompted for in the initial interviews) as they applied to the landscape, as well as the nature of changes that would negatively impact the location they selected. At the end of the exercise, participants were provided the demographic and evaluative surveys to complete from home. Responses to the discussion questions were transcribed and uploaded to the qualitative analysis software to complement the narratives generated from interviews.

Photo-voice

The use of visual materials in qualitative research is by no means new. To be sure, the use of photography played an important role in early landscape studies (Aoki, 1999) and for many years, cultural anthropologists have used photographs to portray traditional societies (Bryman, Bell, & Teevan, 2012). These early studies utilized a photography in the context of photo-elicitation, where photos were used in an interview to stimulate a response from the respondent (Prosser, 2011). Photovoice, which entails providing participants with a camera or asking them to use their own devices to capture images, has numerous variants, including video diaries, photo-narratives, and photo-novellas. These methods have become some of the most

commonly used visual instruments in social science research (Prosser, 2011). Researchers using these methods often seek to empower participants which, in turn, can influence policy or even generate changes in personal and community life (Prosser, 2011). Due to the number of methods employed in this study and the limited resources of the researchers, we developed a simplified instrument to explore how photo-voice might function in CHL identification.

Photo-voice participants were asked to capture and share images using their own camera or mobile device. If a participant was interested in participating but did not have a camera, the research team provided them with a disposable camera. The photos submitted through this instrument could have been captured prior to or during the public participation time frame. Participants interested in the photo-voice method were given a booklet that contained instructions for the activity, a protocol for submitting photos electronically. The booklet also contained 10 spaces to describe where the photo was taken and why the location was valuable, in lieu of follow-up interviews or detailed journaling. The demographic survey and evaluation survey were located on the final pages of the booklet distributed to participants.

Web-based Survey

Web-based surveys – where prospective participants are invited to visit a website where a survey can be found and completed – have become a common method for conducting qualitative research (Marshall & Rossman, 2016). While there are many similarities between web-surveys and structured interviews, there are several key differences as well. Foremost, rather than being probed with questions by a researcher, the participant reads the questions herself and records her answers. They may be quicker, cheaper, and more convenient to administer and there is an

absence of interviewer effects, such as social desirability bias (Bryman, Bell & Teevan, 2012). However, there are also some disadvantages to using surveys compared to interviews. The interviewee cannot explain the question, there is a greater risk of missing data due to incomplete questions, it is difficult to ask a lot of questions because of participant fatigue, and participants can read the entire survey in advance, which can lead to none of the answers being independent of the others (Bryman, Bell & Teevan, 2012).

A web-based survey was developed to allow people to participate from home using their computer with an internet connection. The web-based survey included a participatory GIS element that was developed at the University of Waterloo. The mapping was developed using leaflet Javascript, and the database was based on PostgreSQL. After participants drew a polygon around a landscape they valued, they were prompted to drop a pin on an area that defined the landscape, asked to describe the point and, "if this point were not present, would you still identify this as a CHL?" Following a placement of a polygon and/or point, participants were asked several questions to identify the value domains that most aptly described the landscape. The steps involved in identifying valued landscapes and/or points of interest could have been repeated an indefinite number of times. After completing the mapping exercise, participants were directed to the demographic survey and the method evaluation survey.

Recruitment Strategy

The recruitment strategies used in this study were passive and active. In the active recruitment strategy, potential participants were sought out who were believed may have an interest in the study and they were contacted to inquire about their participation. Key stakeholders and knowledge brokers were identified through web searches and contacts relayed

through the project Steering Committee and were contacted through phone and/or email. For those not relayed through the steering committee, selection was based on their role in the community, as well as their perceived relationship with the landscape. For the interview instrument, religious leaders were selected as both opinion leaders as well as for their potential spiritual connections to landscape. It was also anticipated that through religious leaders, self-directed focus groups may be identified in the congregation. Natural heritage and cultural heritage enthusiasts and professionals were chosen based on their perceived intimate knowledge of the landscape; landscape artists and photographers were chosen based on an apparent aesthetic appreciation of landscapes; and a First Nation was contacted in an effort to elucidate landscapes of importance to them. Other long-time community members and group leaders were similarly recruited for interviews. To recruit focus groups, prominent organizations or associations were identified in the townships and contacted for their participation. Groups contacted for focus group participation included Lions Clubs, trails organizations, township councils, township staff, heritage committees, historical societies, and several other groups.

The active sampling procedure was not unlike the "site-based" sampling procedure presented by Arcury and Quandt (1999). "Sites," as used by Arcury and Quandt (1999), are places, organizations or services that are used by the population of interest. While those authors posit that once sites have been identified statistical information should be gathered to estimate the demographic composition to ensure representativeness, our approach was to contact every group we could identify and ask for their participation.

In the passive recruitment strategy, advertisements were distributed widely and through a variety of medium. Sixty-five flyers advertising the study were placed in easily identifiable locations around the townships, including cafes, general stores, bakeries, and shops. Each of these flyers had tear-away sections at the bottom with details on how to contact the research team. We also had two articles published in local newspapers, one in the Waterloo Region *Record* and the other in the Elmira-based *Observer*, which detailed the nature of the study and how people could get involved. Additionally, we did a live radio interview with the regional branch of the Canadian Broadcasting Corporation, maintained a Facebook page, and advertised at two community events (i.e., the Wellesley Fall Fair and at a Doors Open event in Waterloo). When a potential participant contacted the research team, they were provided with an information letter that detailed the four methods and prompted them to select the method of their choosing.

Site Visits

During the interview and focus group processes, participants regularly spoke of valued activities conducted in the townships, either based on first-hand accounts or on observations of others' behaviour. To provide a more immersive interpretation of the verbal data, the research team did numerous site visits and participated in cultural activities identified by participants; roads identified as ideal for cycling were cycled, areas in the rivers identified as valuable for fly fishing were fished, and hiking trails and walking paths identified by participants were travelled.

Participating in valued activities complimented numerous windshield surveys and site visits, as well as a bus tour of Amish Heritage called "Up the Nith." Historical research was also

undertaken to flesh-out the Regional recommended evaluation criteria. The Waterloo Region Museum's website was an especially accessible and consistent source of geographically relevant information, as were publications of the Waterloo Historical Society. Once the report detailing the results of the study was completed (DeGeer & Drescher, 2018), it was circulated to all participants that provided an email address on the demographic survey or who were actively recruited via email (n=55). These participants were asked to comment on the report, so that areas of conflicting values may be further explored and considered.

Chapter V: Results

In the approximately 4 months of public consultation (July – October 2017), a total of122 people participated in at least one of the four methods. Of the participants, 89% were actively recruited through telephone calls, email, or by snowball effect, the remaining 11% of participants self-selected through the passive recruitment strategy. Females represented 38% of the participants to all methods. For a summary of participation, please see Table 2.

Table 2. Summary of participation rates by method

Method	Number of Participants	Male to Female Ratio	Participants actively recruited	Participants Passively Recruited	Number of Maps Created	Average Number of Polygons per Map
Web Based Survey	12	7 : 5	0	12	12	1
Photo-voice	3	0 : 3	3	0	N/A	5
Focus Groups	72	44 : 28	72	0	15	9
Interview	35	25 : 10	34	1	28	9
Total	122	76 : 46	109	13	55	

A total of 53 maps were created for either the Township of Wellesley or Woolwich. With these maps participants identified a total of 462 landscapes by placing polygons and points through the various public participation tools (Table 2).

Web-based Survey

The web-based survey had twelve participants. All of the participants to this method self-selected to participate. The average number of polygons drawn by participants was one, the lowest quantity of landscapes identified between the four methods used. An example of the

spatial data collected through the web-based survey can be found in Figure 5. During public engagement, several comments were made to the researches stating that the web-survey, "doesn't allow proper expression" and that "it [was] challenging to use." The data produced by the web-survey was neither rich nor nuanced, and few areas of overlap between responses were identified through this method alone.

The demographic survey component of the web-based PPGIS also had 12 respondents. Four respondents identified as Mennonite faith, five identified as Christian, and three identified as nonreligious. Of the nine participants that completed the evaluative survey portion of the web-based survey, two learned about the study through Facebook, three from a newspaper, two from a flyer or hand-out, and two from the study website. Eight respondents provided estimates of how long it took them to complete the survey and mapping exercise, for an average of 34 minutes. Of the six respondents that stated what they disliked about the survey, three stated that they had difficulty drawing polygons.

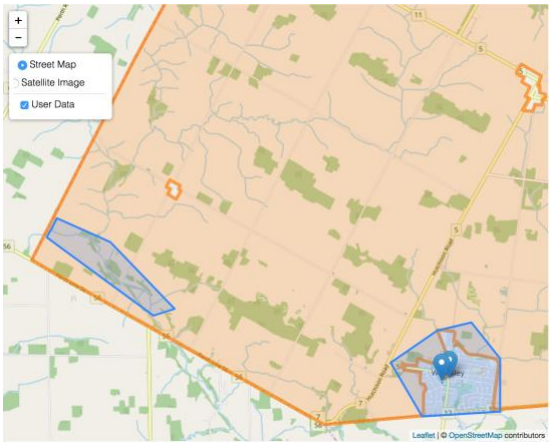

Figure 11 Example of spatial data provided through the web-based survey. The yellow space represents the study area, blue represents polygons drawn by two participants.

Photo-Voice

The three respondents to the photo-voice exercise were all actively recruited. While there was a total of ten spaces to describe photos in the booklets provided to participants, none

submitted as many photos and descriptions. The average number of photos submitted was five and all submissions were aggregated around relatively limited geographic regions. There was no overlap identified between the submissions. Two participants stated that the activity took 60 minutes while the third stated that it took 90 minutes, for an average of 70 minutes. Rationales for participating in the photo-voice exercise included interest in the local surroundings, the desire to preserve natural heritage, and the desire to record photos in the study. In response to the question, "what did you dislike about participating in this activity?" one respondent stated that (s)he did not like handwriting and that electronic forms would be preferred.

Focus Groups

A total of 10 focus groups were conducted with 72 participants (61% male representation). All participants to focus groups were actively recruited. A total of 15 maps were created, with an average of nine areas identified per map. Through this method, two township councils, two heritage committees, two historical societies, two Lions Clubs, and two other community organizations contributed. Several areas of overlap were identified although the explanation for each landscape's selection was limited. Often, sections of the discussion forms that accompanied the mapping exercise were left blank. Researchers were present at 40% of focus group exercises, however, and witnessed fruitful discussions wherein participants would share

Table 3. Comments made on the focus group evaluation survey regarding group collaboration in response to the question "What did you like about participating in this activity?"

Interactive, group participation was helpful
Listening to other's input, and the hands-on map
I learned more about other places in the Township I was unaware of
I learned about Wellesley from more knowledgeable participants
We collaborated as a team and discussed natural and cultural features and sites. And then we wrote up our individual responses.
Small group working with other community members
Collaboration in our group
An enthusiastic interest (by the study and its authors) in my community. Having an opportunity, in a non-threatening venue, to give input. It didn't feel officious. I liked the group activity

stories and meaning of landscapes with other participants in a jovial spirit. This observation was complimented by findings from the evaluation survey about learning and collaboration in response to a question asking participants what they liked about the study (Table 3).

Of the 72 focus group participants, 28 returned demographic surveys and 27 returned evaluation surveys, for a response rate of 39% and 38%, respectively. However, some of the answers were left blank to the surveys questions. Participant responses (N=26) for estimations of how long the exercise took ranged from 10 to 240 minutes, with an average of 84 minutes. For focus groups where the researcher was present, no record of the time was kept. One of the areas that emerged for improvement in the focus group evaluation survey was the complexity of the research questions that accompanied the mapping exercise (Table 4).

Table 4. Comments made on the focus group evaluation survey regarding the complexity of the focus group instrument in response to the questions "What did you dislike about participating in this activity?" and "what would you improve about this activity?"

Repetitive complex questions
The questions were very complicated and technical
Questions were very involved for anyone not familiar with planning. Simpler language would have been better
I think some of the question terms were too hard for lay-people to understand and evaluate
I would use plain language questions
Some of the questions were difficult to understand

Interviews

A total of 28 interviews were conducted with 35 participants (two interviews were conducted with three participants and one was conducted with four participants). All participants to the interviews were actively recruited except one who contacted the research team by telephone. A total of 33 maps were created (some interviewees addressed both townships), and there was an average of nine polygons drawn per map (see Figure 6 for an example of the spatial

data generated through the interview instrument). This method reached three landscape artists, seven religious leaders (four representing Mennonite congregations), eight historians, six natural heritage experts (including representation from the local land trust and naturalist club), two politicians, three recreational group leaders, one representative from the Six Nations of the Grand River, four Old Order Mennonites or people with Old Order Mennonite families, and numerous long-time residents with intimate understanding of the local landscapes.

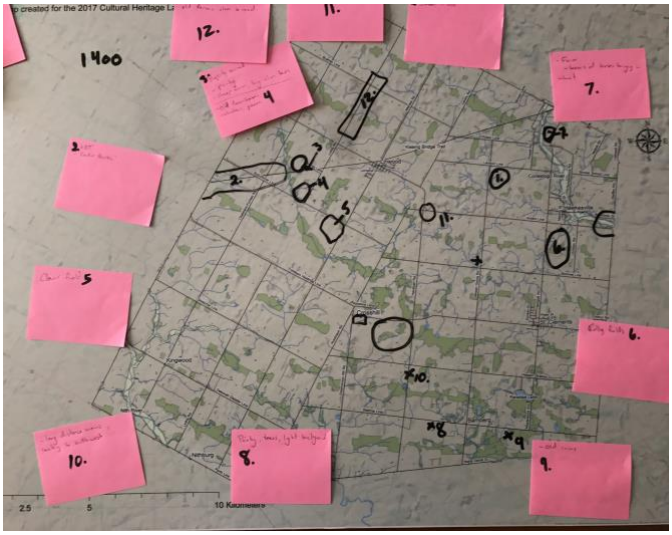

Figure 12. Example of a participatory mapping exercises being conducted for the Township of Wellesley.

The audio recorded portions of the interviews lasted from 21 – 83 minutes, with an average duration of 44 minutes. However, several of the interviews called for additional time spent with the participant; village walking tours, chapel tours, informal conversation, and other items presented themselves that were instrumental to the researcher gaining an understanding of the participant's landscape values. At least three of the additional activities that accompanied interviews lasted for as long as four hours, while most were under 45 minutes of additional time. The transcribed data from the interviews is intimately linked with the discussion and will therefore be presented in the following Chapter.

Spatial Data and Report Identifying Landscapes

When each of the spatially explicit results from the methods were aggregated into a single data set, areas of overlap became clear (Figure 7). To aggregate data, the maps made through the interviews, focus groups, and the web-based survey (n=53) were digitized and traced into ArcGIS by a research assistant. Due to the limited geographic explicitness provided by photo-voice participants, that information was not added to the map of aggregated spatial data. Based on conversations with the steering committee, it was decided that quantitative analysis of the spatial data was unnecessary for the purposes of the research. Instead, we relied on visual analysis of the aggregated spatial data, historical research, and site evaluation to determine the approximate boundaries of candidate CHLs. The boundaries around the aggregated data were based first and foremost on participant responses.

Areas of aggregated data tended to be around several physical characteristics of the townships. Water resources (including lakes, ponds and reservoirs), settlement clusters, viewsheds overlooking agricultural properties, and recreational trials were commonly identified. Landmarks were also identified, especially those of a prominent church in the village of Maryhill and the numerous bridges crossing the rivers. Participants also discussed challenges in identifying specific areas, and several suggested that the entire study area was worthy of protection. Two respondents identified the entirety of Wellesley Township, which shows as a light pink colour on Figure 7. The intensity of the colour red on the remaining areas identified corresponds to the number of participants that identified an area – the darker the red, the greater the number of participants that drew a polygon around the landscape.

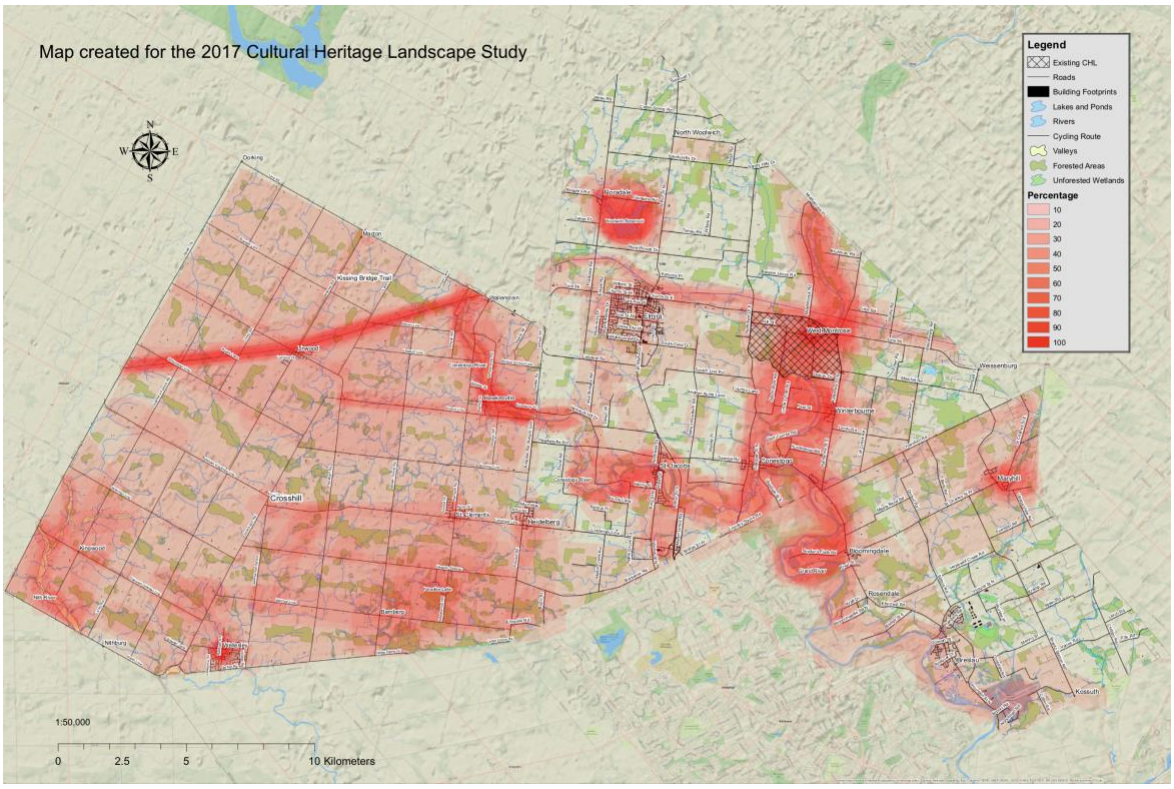

Figure 13. Aggregated spatial data obtained from focus groups, interviews, and the web-based survey. The darkness of red corresponds to the number of respondents that identified an area, the lightest pink represents a single response.

Through the four methods of participation, 10 candidate CHLs were identified, and reported in a fashion not inconsistent with the Region of Waterloo's documentation regarding the identification of CHLs (DeGeer & Drescher, 2018). The report contained many photos that were either taken by the research team during site visits, or where submitted by photo-voice or interview participants, as well as several paintings that were included based on permission of the artists. Of the quotes and stories that were included, the vast majority came from the interview method, although there were several stories brought in from the focus groups as well. The detail generated through the audio recorded interviews surpassed that provided by the question sets that accompanied the other methods, and the probing questions from a researcher in interviews enabled a greater depth of meaning and understanding to be conveyed.

After a draft report about the study results was completed, it was circulated to all participants who provided an email address on the demographic survey or were actively recruited for participation via email (n= 55). No substantive comments regarding the structure or content of the report were received, and of those that did respond (three), the comments were of a congratulatory nature. There were no conflicts or controversies identified.

Evaluation Survey and Demographics

The demographic survey provided the researchers with information about how representative participants were of the populations in the townships of Woolwich and Wellesley. Of the respondents to the demographic survey from photo-voice, the web-based survey and focus groups (N=43), it was found that 68% reside in either the Township of Wellesley or Woolwich, and 25% reside in Kitchener-Waterloo. Sixty-three percent of survey respondents identified as Christian, 9% as Mennonite, and 26% as nonreligious. Of the 34 surveys that were returned with a pre-tax household income stated, it was found that 32% had a stated income of $100,000 or more, and that 11% have household incomes of less than $70,000.[15]

The evaluation survey was intended to have the participant evaluate the method and provide a lens through which the researchers could evaluate the processes of social learning and behavioural changes that may accompany participatory identification of cultural landscapes. A total of six related Likert scale questions were developed to address those two questions. While the sample size and ordinal nature of the data does not permit detailed statistical analysis, the

[15] Due to a printing error in the demographic survey, average income of participants cannot be estimated.

results are illustrative of participant experiences. Responses from participants evaluating the methods can be found in Table 5 a, b, & c.

Table 5. Participant responses to questions evaluating the engagement method through which they participated.

Questions Evaluating the Method					
a) Would you participate in this activity again?					
Method	**Very Likely**	**Likely**	**Not Sure**	**Unlikely**	**Very Unlikely**
Focus Group (N=27)	26%	48%	15%	11%	0%
Web-based (N=9)	67%	22%	11%	0%	0%
Photo-voice (N=3)	33%	0%	67%	0%	0%
b) Do you think the activity you participated in is a good way to involve the public in planning decisions?					
Method	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
Focus Group (N=27)	26%	52%	18%	4%	0%
Web-based (N=8)	63%	37%	0%	0%	0%
Photo-voice (N=3)	0%	33%	67%	0%	0%
c) Did this activity allow you to express your thoughts adequately?					
Method	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
Focus Group (N=27)	7%	63%	30%	0%	0%
Web-based (N=8)	38%	50%	13%	0%	0%
Photo-voice (N=3)	0%	0%	67%	33%	0%

When asked if they would participate in the activity again, the web-based exercise had the most favourable responses, with 89% stating that they are likely or very likely to participate again, while 74% of focus group participants stated the same. Only one of the three photo-voice participants stated that they would be very likely to participate again, the other two stating that they were not sure. The web-based survey also had the most favourable responses when the participants were asked if the exercise was a good method to engage the public in planning decisions. All eight respondents from the web-survey agreed or strongly agreed that it was a good way to include the public, while 22% of focus group respondents and 100% of photo-voice participants remained neutral or disagreed. When asked if the method allowed the participant to

express their thoughts adequately, again, the web-survey had the most favourable results. Eighty-eight per cent of web-survey respondents agreed or strongly agreed that the method allowed them to express their thoughts, while only 70% of focus group participants agreed or strongly agreed. The only respondent who disagreed was a participant to the photo-voice instrument, while the other two photo-voice participants remained neutral.

To evaluate the effect the participatory landscape planning methods had on participants, they were asked three questions about the impact of the exercise on learning, perception, and behaviour. The response rates to these questions are presented in Table 6.

Table 6. Participant responses to questions about learning, perception, and behavioural changes that may accompany or follow participation in the study.

Questions Evaluating Social Learning and Collaboration					
a) Did you learn anything about your environment, landscapes, culture, heritage or history while participating in this activity?					
Method	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
Focus Group (N=27)	15%	63%	22%	0%	0%
Web-based (N=6)	0%	0%	67%	17%	17%
Photo-voice (N=3)	0%	33%	67%	0%	0%

b) Has your perception of landscape changed since participating in this activity?					
Method	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
Focus Group (N=27)	0%	44%	41%	15%	0%
Web-based (N=8)	0%	0%	100%	0%	0%
Photo-voice (N=3)	0%	0%	67%	33%	0%

c) Do you think your behaviour will change because of your participation in this study?					
Method	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
Focus Group (N=27)	0%	22%	59%	19%	0%
Web-based (N=7)	0%	14%	71%	14%	0%
Photo-voice (N=2)	0%	0%	50%	50%	0%

When the participants were asked if they learned anything about their environment, landscapes, culture, heritage or history while participating in the study none of web-survey respondents stated that they had learned anything and 33% disagreed or strongly disagreed. Of the focus group respondents, 78% stated that they agreed or strongly agreed that they had learned something, with none disagreeing. In response to being questioned about what they learned, focus group participants mentioned several facets of cultural landscape, but especially about learning about others' interests and values (Table 7).

Table 7. Participant responses to questions about learning, perception, and behavioural changes that may accompany or follow participation in the study.

I learned how others placed value on different places in the defined geographic area
That Wellesley township has a lot of landmarks, and landscapes that contribute to its cultural heritage
I learned some of the history related to the kissing bridge trail
Forces one to think about preservation and conservation of both natural landscapes and the historic built landscape
I learned about the study of migratory birds and its national importance
Through group conversation, more awareness of possible highlights was developed
"Landscapes" was not something that I had considered before
I learned how others placed value on different places in the defined geographic area
I learned of other areas in the township that were worth consideration

When asked if their perception of landscape had changed as a result of participating in the exercise, 44% of focus group respondents stated that it had, while all other respondents remained neutral or disagreed. Several participants stated how their perspective of landscape changed through the focus group instrument (Table 8). Finally, when asked if their behaviour would change because of their participation in the study, 22% of focus group respondents and 14% of web-survey respondents

Table 8. Examples of responses provided when asked to elaborate how participants perception of landscapes had changed.

This study makes you think in different ways about the landscape and what it means to you.
Better understanding and appreciation
Just more awareness
Uniqueness of Wellesley Culture
[CHLs] are not an area of expertise, so I know more now
The "heart" of the village landscape makes you want to visit it frequently. You see the skill of the early tradesmen in the buildings (A lost art).
landscapes in the township can be cultural/heritage features and that Wellesley has a lot of them that are enjoyed by many [people] (i.e. pond, trails, etc.)

stated that it would. Participants were then asked to explain how their behaviour would change, to which only focus group participants provided examples, such as "I will work harder to preserve and protect our natural assets" and "I will share what I learned with other townships residents."

Lastly, participants were asked to rank their top five values from a list of predefined value domains (Figure 8). To weigh their responses, participants' first response was given a weight of 5, their second a weight of 4, and so on until their fifth selection was weighted as 1.

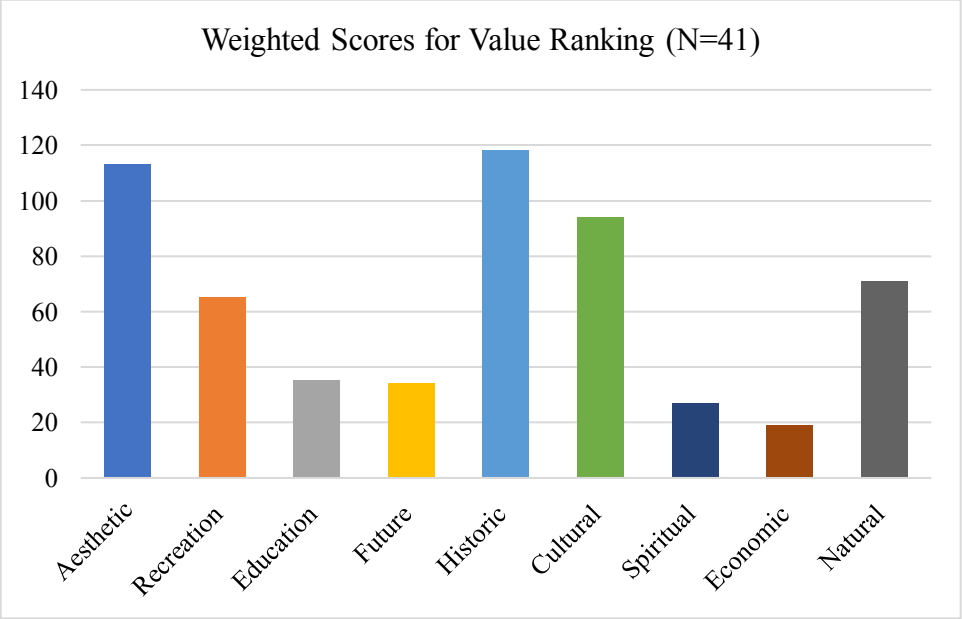

Figure 14. Weighted value preferences from participants that submitted a demographic survey.

Historic and aesthetic values where ranked the highest (118 and 113 points, respectively), and economic values were the lowest (19 points). Cultural (94 points), natural (70 points) and recreational (65 points) values were also ranked highly by many participants.

Chapter VI: Discussion

When the spatial data generated through the web-based survey, focus groups, and one-on-one interviews were integrated into a single map, geographical areas of shared values emerged. While other researchers report a high level of value aggregation around aquatic features (De Vries, et al., 2013; Darvil & Lindo, 2015) we also found a high level of aggregation around villages and settlement clusters. Thus, the use of PPGIS – in interviews, focus groups and web-surveys – does seem to hold potential for eliciting community values in the identification of cultural landscapes, including built-out landscapes. Yet, there are numerous areas of possible improvement in each of the methods used in this study as well as the recruitment strategy. There were also considerable barriers to identifying candidate CHLs through public participation in general, as revealed by participants to the interview instrument. Spatial awareness of the townships, the lack of congruence of the "cultural landscape" idea with a participant's worldview, and the choice to abstain from municipal, provincial, and federal politics in traditional Mennonite communities were barriers to using PPGIS in our study area. There were also important First Nation stakeholders who opted not to participate in the study. Finally, one of the findings of this study is that measures designed to conserve a landscape ought to be taken with careful consideration of the potential implications for those who live in the landscape, even if their home clearly meets the designation criteria. However, before we consider how policy aimed at strengthening a landscape might, paradoxically, weaken it, we turn to a discussion of which methods were effective and some of the complimentary aspects of the methods.

Discussion of Methods

With 122 respondents to the mapping exercises and, at most, a total of 43 valid responses to the demographic and evaluative survey questions, we are unable to draw strong conclusions about differences between groups and sub-groups of the respondents to the study. However, similar to Gould et al., (2015), who conducted interviews with 30 respondents in Hawaii and British Columbia, respectively, our study allowed examination of the nuanced values that underlay the desire to protect landscapes, as well as where those values overlap. Different types of values were identified as coexisting in single geographic areas in multiple instances (DeGeer & Drescher, 2018), which speaks to the multitude of cultural values that should be considered in cultural landscape planning initiatives. Identifying landscapes through public participation and then screening them for cultural and historical significance to fulfill policy objectives (e.g. PPS, 2014: definition of "significant") allowed more candidate CHLs to be identified than through an expert's analysis: The current study was conducted in townships which already had candidate cultural landscapes identified by a consulting firm, and our results indicate that some of the most culturally and historically valued areas for the people who reside in the township were not identified in that report (compare Figure 13 to Figure 4).

Recruitment Strategy

The low participation rates for the web-based survey (ten participants) and photo-voice (three participants) are, in part, a result of our recruitment strategy. In our active strategy (which attracted 89% of participants), we explicitly asked the individual or gatekeeper of an organization to participate in an interview or focus group. Through this strategy, we garnered

participation from 109 respondents, which is not inconsistent with other response rates using community-scale interviews: (Fagerholm et al., 2012: 218 respondents; Klain & Chan, 2012: 30 respondents; Raymond et al., 2009: 56 respondents; van Berkel & Verburg, 2012: 115 respondents [as found in Plieninger et al., 2013, who had 93 respondents]). However, our numbers include focus group and one-on-one interview respondents, while other studies exclusively employed community-scale interviews. We found that most people we contacted for participation elected to participate, with the exception of members of the Six Nations community and some Mennonite communities.

Participants to the web-based survey stated that they learned of our study from four of the passive recruitment media, indicating that advertising broadly across various media may increase participation rates. While it was hoped that members of the public would also elect for participation in the photo-voice method, only one individual contacted us and expressed interest in the method: an elementary school teacher who was interested in completing the exercise with her students. Unfortunately, due to the nature of our ethics clearance at the University of Waterloo, we were unable to accommodate the students. Targeting students for participation may have been a way not only to increase response rates to the photo-voice method, but also to facilitate the inclusion of a typically underrepresented group of community members: youth. In addition to targeting youth, a paper-based mail-out survey could have been used to achieve a more representative sample (Brown, 2004). However, the current study aimed to focus on the diversity of values that coexist in the landscape instead of representativeness.

Photo-Voice

The low response rate for the photo-voice activity may be due to the skills required to use a camera (Michelin, Joliveau & Planchat-Héry, 2011), or it could be that the perceived cost of time and effort outweighed the perceived benefit of participation through that method (Jones, 2011). In a successful use of photo-voice, Dakin (2000) developed a more personal rapport with participants through follow-up interviews and journaling exercises, which may have increased commitment of respondents. In an application using mobile phone video, Boone (2015) documents the use of "tech-buddies" (graduate students trained to assist participants with technology) that were provided to 17 participants who were recruited through a visioning workshop. Perhaps, then, a recruitment strategy that sought participants who already showed commitment to the study through another avenue and providing them with one-on-one assistance would have improved the response rate to the photo-voice method. One of the successful submissions included landscape paintings that were painted and photographed by a participant. Those and the other landscape photo submissions were evocative of the aesthetic values derived from dwelling in the landscape, but the three responses did not provide sufficient data to identify individual candidate CHLs and their exact spatial locations. Moreover, based on the three responses to the question, "did this method allow you to express your thoughts adequately?" it appears that this instrument did not sufficiently help overcome the challenges with communicating complex landscape related values.

The photo-voice method could be markedly improved from how it was deployed in the current study. As suggested by a participant on the evaluative survey, this method could be brought online and developed in a way that enables participants to drag and drop photos directly

from their photograph libraries to the project web-page. This would be less arduous than the paper-based method and would remove several of the steps required to complete the exercise. Another means of garnering participants might be to develop a hashtag that participants could use on their existing social media accounts. If, for example, #WWCHL was added as a tag to participants photos on Twitter, Instagram, and Facebook, then the participants' friends or followers may also select to submit photos of valued cultural heritage places and processes.

Web-based Survey

The web-based survey also had a low response rate (12 participants), which like in photo-voice, may be partially attributed to the passive recruitment strategy. One way to increase the response rate to the web-based survey may be to adopt additional advertisement strategies, such as sending an information letter and access code to a predetermined number of random households (Brown & Montag, 2012; Brown & Raymond, 2007). The low response rate to the web-based survey might also be connected to the mix of cultural groups in the study area. Much of the population of the townships identify as Mennonite. Many Mennonites in the area have adopted a modern, or "liberal" way of life; they travel in automobiles, wear non-distinguishing garb, participate in politics, and use the internet. This latter observation is strengthened by the number of participants to the web-survey that identified as Mennonite (33%). However, other Mennonite groups have chosen to adhere to more traditional practices, which emphasize abstention from using technologies.[16] For this reason, instead of a web-based PPGIS method, a paper-based mail-out survey could be deployed that achieves the same objectives (Brown, 2004),

[16] To be sure, old order and other "conservative" Mennonites in the Townships use technology in limited ways. A group called the "Dave Martin Mennonites," for example, permit use of advanced machining equipment using computer technology and skid-steer machinery, but do not use tractors, bicycles, or automobiles. Old-order Mennonites use tractors but not cell phones and traveling by bicycle is permitted.

which has been demonstrated to have higher response rates than internet surveys (Pocewicz et al., 2012)

Additionally, to simplify the web-survey, points should be used instead of polygons (Brown and Fagerholm, 2015). Using both polygons and points added unnecessary complexity to the survey, with 50% participants, when asked what they disliked about the study, stating that they had trouble drawing polygons. Switching to points only would limit the ability of participants to draw boundaries of potential CHLs but focus groups and interviews also used pins, stickers (Gould et al., 2015), or plastic disks (Raymond et al., 2009) so that the spatial data produced by the methods remains similar.

The web-based survey had the fewest number of landscapes identified per exercise. The maps developed by focus groups and interviews had an average of nine landscapes identified, while for the web survey it was just one. The difference in number of landscapes identified between web- and paper-based methods could be a result of the ease of identifying landscape on paper versus a computer. This was also found by Pocewicz's et al. (2012) who showed that participants who used paper-based PPGIS surveys identified more than double the number of landscape attributes than those completing the survey electronically. However, the presence of a researcher and/or other community members in interviews and focus groups also may have increased the number of polygons drawn per map in those methods.

Focus Groups

Of the ten focus groups that were conducted, a researcher was present for four. In hindsight, having groups conduct focus groups without a researcher present may have been an unnecessary risk, as the researcher lost control of the project to potentially biased third parties (Brown and Fagerholm, 2015). Also, based on the experience of the researcher present during focus groups, the opportunity to provide clarity on some of the more complex aspects of CHL planning was missed when the researcher was not present. The researcher also lost the ability to assess group norms and the formation of views (Barbour & Schostak, 2005).

Focus groups were identified as achieving social learning, with 78% of participants stating that they agreed or strongly agreed that they learned something about their environment, landscapes, culture, heritage, or history while participating in the activity. This finding is consistent with other literature that has identified the co-creation and elaboration of knowledge through focus groups (e.g. Wibeck, Dahlgren, & Öberg, 2007). While it is conceivable that social learning could also occur through interviews, only one explanation for what was learned did not regard learning from group members: "'landscape' was not something I had considered before." Furthermore, it was the only method through which participants found their perception of landscape to change and had the most favorable responses regarding behavioural changes resulting from the exercise.

Communication was one of the challenges that accompanied the focus groups. Asking participants to draw symbols and images on the discussion form added a level of complexity to the discussion questions that did not help address the research questions. The use of policy terms

in the discussion forms also seems to have complicated matters. Asking participants if the area they identified aligned with UNESCO's definitions of cultural landscapes and the PPS definition of a CHL may have confused participants. The complexity of language and unnecessary steps involved in the discussion forms limited meaningful expression for some respondents, which, as Forester (1989) states, works against direct political action. The comments received on the evaluative survey are instructive when considering how to improve the communicative aspect of focus groups: participants suggested replacing technical language with vernacular in a streamlined discussion form (see Table 4).

Participants had a more favorable opinion of the web-based survey than focus groups when asked if they would participate in the activity again and if they thought the exercise was a good way to involve the public in planning decisions. Though, in our study, focus groups outperformed the web-based survey by attracting a greater quantity of participants who in turn identified a greater quantity of landscapes per map. Perhaps the findings regarding the perceived merits of the study in reapplication and future applications has to do with the nature of the participants. In the web-based survey, participants purposefully and intentionally completed the exercise on their own which demonstrates a level of interest, commitment, and perhaps, enthusiasm. Focus groups, on the other hand, were completed with organization members who may or may not have had a say in determining if their group would participate. This might have resulted in some members feeling compelled to complete the method who were less enthusiastic than those completing the web-based survey, which is related to the foremost challenge in conducting focus groups: power dynamics (Barbour & Schostak, 2005).

Interviews

The most efficacious instrument for identifying candidate CHLs and elucidating community values was the interview instrument. However, that method, in itself, did not garner a representative sample of the communities, as each respondent was actively selected based on their role in the community. One-on-one interviews reached a total of 35 people through 28 interviews and resulted in a total of 28 maps being created for either Wellesley or Woolwich. Numerous areas of overlap were identified through this method alone, and it allowed for communication of shared as well as contested values (DeGeer and Drescher, 2018). The modification of the interview protocol from a closed series of prompts to a more open conversation enabled the researcher to follow Barbour and Schostak's (2005: 43) recommendation of adopting the pose of the listener and paralleling the language and manners of the interviewee. The modified protocol may have also reduced the presumed power of the interviewer and, in turn, empowered the interviewee to establish an acceptable discourse. Moreover, that method provided the research team with much rich material to examine barriers to identifying CHLs with PPGIS methods more generally, as well as to consider the implications of identifying Mennonite landscapes as CHLs in contested geographies.

Individual and Cultural Barriers

A challenge with using public participation in our study was the inability of participants to address the entirety of the study area (maps covered approximately 300 km^2). In 12 out of 28 interviews, participants explicitly stated that there were limitations to their familiarity with certain areas of the maps. Some of the instances involved a statement from the participant along the lines of "I am not familiar with [area name, and/or pointing to an area on the map]." Others

defined the area they were familiar with based on community affiliation: ". . . these areas, I'm not really geographically connected to, because residentially I am out there, but Ministry wise, for the congregation we would stretch out to here [pointing to areas in the map]." Areas rarely travelled also led to unfamiliarity with areas: "I'm not that familiar with it because I live in this little area where I travel most of the time." In other instances, participants had clear challenges orienting themselves with a map. These limitations in wayfinding and cognitive mapping (Kitchin, 1994) are worthy of further investigation.

The issues of scale and representativeness, then, becomes an important consideration in participatory CHL identification. Planning research often discusses the importance of bringing underrepresented people into the decision-making process, but our findings suggest we might need to not only consider income, gender, and ethic inequality, but also equality in geographic representation. The issue, in our study area, is compounded because certain populations of the geography abstain from politics and maintain a closed community, as stated by this Old Order Mennonite during an interview:

> Our people are sometimes called the quiet in the land. I'm not sure if we are that anymore. We do not vote. We do not - it's difficult for me to tell you what I wish - I have already said a little bit. But it's difficult to say what I wish would be preserved because I'm not used to - I don't even vote. So, I'm not used to having my say. So, now - it's difficult.

Here, the processes of political engagement and participatory decision making were fundamentally inconsistent with a way of life, especially in relation to political traditions. As the evidence from the number of respondents who, unprompted, stated they had challenges addressing the entire townships attests to, certain areas are bound to fall outside of the participatory process if they are not familiar places to the participants. Since the geography of a cultural group that stays "quiet in the land" comprises a significant portion of the townships, geographic as well as cultural representativeness within the study area remains a barrier.

Another cultural barrier is that related to the premise of cultural landscape planning more specifically. The idea that one area may be more valuable than another appears to be inconsistent with a First Nations way of perceiving the landscape:

> So, there's not one specific area that I'm aware of that's any more important than that of another . . . I don't have any culturally significant areas that I could mark on this map for you. I mean it's all kind of culturally significant . . . There isn't really one specific, or little patches of specific cultural heritage that are important to us. It's all important to us.

So, for traditional Mennonites, participatory planning appears to be inconsistent with a way of life and, for others, especially First Nations, the practice of cultural landscape planning was inconsistent with a worldview of holism. Klain and Chan (2012) also found that some of their interview participants were unable to identify specific places on a map. But in their case, it was issues of cultural expropriation and sacredness that led to the refusal to identify areas.

In the PPGIS literature and public participation literature more generally, there seems to be a dearth of studies examining the capacity of the human mind to accurately recall, describe, and represent the values within a study area, which warrants further research. It was found that public participation processes may not be attainable where ways of life and/or world views are inconsistent with the premises of the planning framework. The ideals of democracy and justice expounded by communicative planning theorists seem out of place in planning for Mennonite landscapes. And, disaggregating the countryside into significant and non-significant parcels of cultural value was a dubious practice to some participants. Moreover, an additional finding generated through the interview instrument is that the practice of landscape conservation may exacerbate some of the postulations of cultural landscape theorists, especially in relation to creating "otherness" and reaffirming "us/them" mentalities, as will be discussed below.

Implications of Designating Mennonite Landscapes

By seeking to understand the participants' lived experience, "digging deeper into the landscape" as an archaeologist might say (Ingold, 1993), clear demarcations between natural, cultural, economic etc. begin to meld into a holistic state of being that defies categorization and is integrated with the landscape. In our study area, Mennonite landscapes considered unique, or "thematic" (Region of Waterloo, 2009; Figure 4) present a form of "otherness" behind which real people exist. The ostensible rationale for valuing such areas range from sustainability to a romanticised aesthetic. Regarding the former, one participant stated that,

> . . . if something catastrophic happened and the price of oil goes up to $150 a barrel, you can't run machinery anymore over hundreds of kilometers – or a hundred kilometers to

> get to your next piece of land that you rented. These people [referring to traditional Mennonites] will survive and they'll show us how you do it without needing petroleum. Somebody once said that [modern agriculture] is a black box that turns oil into food.

While there are elements of accuracy regarding the non-central role of petroleum, herbicides and insecticides in Mennonite agriculture, non-traditional and non-Mennonite participants often overlooked some of the less sustainable aspects of traditional agriculture, as stated by this participant:

> on the other side of the coin, and you could talk with GRCA and they would definitely verify this, is that the Mennonites have not been the first people to put up retaining walls between the creek and the manure yard, you know, and fixing the retaining wall if it does get a leak. And so, we've been bad guys, sometimes, with our manure getting in. And we have bigger and bigger operations. So, the liquid manure is pretty potent and there's been some dead fish . . . A lot of farmers are really trying, but if a farmer is cash strapped, he finds it hard to take care of those things for the sake of the fish in the river. But we do recognize that we need to.

Thus, non-traditional Mennonite respondents had a tendency to romanticize the environmental ethic espoused by traditional Mennonite communities, which, in many ways is not an environmental ethic *per se* but results instead from religious values. Romanticism of Mennonite agricultural practices also presented itself in aesthetic appreciation:

> coming over that hill and looking down over the river on your right and seeing grain fields with stooks of grain in them or, as I said, farmers out working in their field with horses and plows or cultivating equipment, you just won't get a picture like that. It's pastoral. It's soothing.

While there does not appear to be anything inherently maleficent in romanticizing another's way of life, romanticizing it to the point of designating it as something unique, thematic, or of special interest may have more problematic implications.

In each of the passages above, Mennonites are distinguished as something "other": "These people," "we've been the bad guys," and working with "horse and plows" all illustrate how the uniqueness of cultural traditions can result in distinctions between self and other. The implications of the binaries between these groups were well documented by two Old Order Mennonite respondents. When asked, "What does it mean to you to grow up as a Mennonite?" one participant responded:

> I'm not sure how to answer that. Because that was the right way to be; this is who we are. I'm talking through the eyes of a child. And everybody else out there was - you know, to us - just let me just talk about one little thing. And I'm saying it from the perspective of a small child, maybe a 10-year-old . . .. It was the style at that time for women to wear very pointed shoes that were obviously - very obviously very uncomfortable. And we used to laugh at that quite a bit. How stupid it is to - just because it's style. At the very same time, today, as an adult, I realize that other places from the outside were looking at our clothes

> and thinking -. So, we - I grew up with that. With a 'we-them' mentality. We-them. So, the way we were being raised was the right way to be. I didn't think that, that's how I felt. So, what did it mean to grow up as an Old Order Mennonite? It means the rest of the world goes by and we do our own thing: we go do the chores, and we fetch the cows in from the pasture, and we tie them up and we feed them, and the girls milk them. And then we go in and read a storybook. What did it mean to grow up on a farm? I don't know. That's just how life was. We were farm people.

While it may be only natural to define oneself in relation to others, in our study area, the binaries between traditional Mennonites, and non-traditional Mennonites has resulted in a "we-them" mentality to the extent of intentionally hiding cultural practices. This is especially true for formal educational traditions. Traditional Mennonites operate separate school systems, with a unique curriculum and where, at the age of 14 years, students discontinue attending school. For some, this raises problems and the need to hide the tradition:

> We leave school at 14. And that's not legal. But nobody is complaining. We teach our people keep your 14- to 18-year olds out of the public, in time of school, keep them out - don't lock them in the back room. But keep them out of the public eye, so that we don't have people around us complaining about us.

As "outsiders" it may be easy to cast a downward glance at this practice and compare it to one's own cultural norms, but for those intimately engaged in the education of traditional Mennonite students, it is perceived as part of life, which is not necessarily undertaken uncritically. During

an interview with a teacher, the researcher stated that, in his perspective, it must have been hard to see some of the children leave school at the age of 14 years, to which the participant responded:

> I sort of understood it because my father did that and a couple of my brothers [as well]. But, well, you know, for some reason it didn't bother me a whole lot because I knew that they were going to a community that loves them and cares for them and they are going to go to life that works for them . . . [but] I often wished I could've met with the kids or whatever and asked them, you know, "How do you really feel about this?" I'm sure there were some that would have said, "Gosh, I wish I could go on," and some of them would have left. I had a few as adult students who went to university from the Old Order especially and so, were there others that had that? I mean they had this gift for writing or they're creative in many ways and how did that affect them? Some of them could've been doctors and so on. So, I often - I sometimes, wished I could ask, you know "Dale, how do feel about that?" or go to one of the parents and say, "Jeez, you know, your son really has good gifts that could be. . . " But no, I didn't do that.

So, even for a professional educator of a traditional Mennonite community, there remained internal conflict about educational cultural practices. The point here is not that one set of cultural practices is superior to another, or that judgment should be passed on another's cultural practices (so long as no harm is done to people or the environment). Rather, it is to illustrate the finding that a cultural landscape designation may at once exacerbate existing feelings of being judged by

the "other" in addition to normalizing and cementing injustice for First Nations that had their lands illegally sold.

If Mennonite landscapes were designated as CHLs, the idea of the "other" would not only be perceived cognitively, but also stated in policy. Tour buses full of people hoping to gaze at the "other" through their own cultural biases could increase, and lines on a map could be interpreted as demarcating "us" from "them." As the new cultural geographers critiqued the Berkeley School for being focused on the antiquarian and unconcerned with the lives of those who dwell in the landscape, cultural landscape practitioners may be equally guilty if performed uncritically. Here, then, is the strongest aspect of the interview method. It enabled the researcher to consider the implications of identifying CHLs from the inside, from the perspective of those that dwell in the landscape.

In the case of Mennonite landscapes, there is a tendency to identify them as the product of stable, pre-modern and dominantly agricultural societies that are threatened by the processes of modernization as the old cultural geographers once did in cultural landscape studies (Cosgrove & Jackson: 96). Moreover, the idea that "meaning" and "significance" cover these landscapes in layers seems to provide the space in which cultural landscape planning can flourish "without concern for what the world means to the people who live in it" (Ingold, 1993). While a meaningful participatory approach to identification and policy development might change this observation, this process may be occluded by the cultural barriers described previously. We ought, then, to be cautious in designating another's homeland as "our" shared cultural resource. Designating such geographies as "significant" may further marginalize and subjugate a people to

the gaze and critique of other peoples, while at the same time, solidify if not celebrate potentially wrongful acquisition of land from First Nations. Thus, caution and critical reflection ought to trump policy when planning cultural landscapes, and perhaps requiring the conservation of CHLs (PPS, 2014: S.2.6.1) is premature in regions with contested geographies.

Conclusion

Each of the methods used to elicit geographically explicit community values had merits and challenges. The interview instrument enabled a communicative process with the opportunity to converse through complex ideas that might have worked against meaningful participation for methods where the researcher was not present. That method allowed for identification of shared and contested values (DeGeer & Drescher, 2018) for those who dwell in the landscape (Ingold, 1993). The focus group instrument, on the other hand, allowed us to reach more participants than time consuming one-on-one interviews, and it was found that focus groups engendered processes of social learning and self-reported behavioral changes. The web-based survey was most favorably evaluated by participants, and also provided an avenue for those with a computer and internet connection to participate from home. Enabling people to meaningfully participate on their own time is perceived as an important tool for empowering individuals in the identification of candidate CHLs, despite the low response rate we received. It remains unclear if photo-voice is suitable to a study area the size of Wellesley and Woolwich. Perhaps it is better suited for elucidating values in a more limited geographic area and might garner higher participation rates if advertised to youth and brought online. Together, focus groups, interviews, and the web-survey allowed the research team to triangulate areas of community values, which did not present randomly across the township but instead were aggregated along riparian areas,

settlements, landmarks, and environmental and recreational assets. Areas of shared values emerged that were additional to those previously identified by a team of consulting experts (Region of Waterloo, 2009), meaning that community elicitation techniques and PPGIS may provide more holistic landscape identification methods than the processes prescribed in policy (e.g. MTCS, 2006).

For planners and policy developers, the results of this study mean that: a) expert-based cultural landscape assessment techniques could be complemented by a more participatory approach, especially those with participatory mapping exercises; b) that using more than one method of public engagement is likely to garner a greater number of participants and result in more rigorous findings; c) that to achieve public participation, an active recruitment strategy may be a requisite, especially for policy decisions that lack immediate saliency to local populations, and; d) that understanding the policy implications of cultural landscape designation is unlikely to occur without face-to-face, informal, and open conversations with those affected by a designation.

The findings generated by the evaluation survey may also be instructive to planners or others interested in participatory decision-making processes. This study has provided evidence that group exercises may engender social learning to greater extent that individual activities, which should not be taken as a good thing in itself. It is possible that without a researcher guiding the process, power could be usurped by interests that are antithetical to a given initiative or undertaking, and that positions adversative to those purported by collaborative planning theorists (such as apathy instead of empowerment) are reinforced. Through the evaluation

survey, we also found that the web-based instrument was most favorably evaluated. However, that interview participants did not complete an evaluation survey limits our ability to comment on the extent to which that instrument engendered processes of social learning and how positively it was perceived by participants. Another key finding from the evaluation survey is that simplification of language and processes would have benefited this study. For example, the idea of cultural landscapes presented a challenge to some respondents, and the process of drawing polygons on the web-survey was cited as a challenge. These could and should be simplified to improve the processes of participatory cultural landscape planning.

This research also identified some challenges to participatory planning in general and cultural landscape planning in particular that are not commonly addressed in planning literature (e.g. Shipley & Utz, 2012). In the study area, a significant portion of the population espouse a traditional Mennonite way of life, a way of life that precludes participation in municipal planning matters, as well as provincial and national politics. It was found that the normative rationales for communicative planning seemed out of place when applied to the cultural practices of a people who identify as the "quiet people in the land." That is, communicative planning ideals where at odds with established decision-making processes in that community and such ideas seem to lack cultural sensitivity when applied in geographies that do not practice elements of modern Western-styled democracy. It was also found that overlaying CHL designations on Mennonite landscapes may exacerbate sentiments of "otherness" and the perception of being judged by non-traditional Mennonites, especially if tourism were to increase as a result of designation. Finally, it was found that the practice of cultural landscape planning is a dubious endeavor for those who value all the land equally, in a holistic fashion, which is present in a First Nation perspective.

The challenges identified in this research are not insurmountable. First, if we consider the problematic aspects of designating Mennonite landscapes that are unconnected with the Haldimand Tract, there are ways in which these sensitive and unique landscapes might be conserved without exacerbating feelings of otherness and without celebrating cultural practices that result in inequality or environmental degradation. One of the key rationales for a municipality to identify CHLs is that, in the Province of Ontario, it empowers municipal governments in planning decisions that otherwise reside with the provincial government. While it may be that the political fallout from locally unfavorable decisions is reduced when the government making the decision has an electorate larger than those affected by a less-than-desirable back-yard land use, it may also be true that local governments are better positioned to understand the nuances of their communities. In the current study, several respondents discussed the undesirability of aggregate extraction in areas of cultural heritage value. Empowering a municipality to determine the appropriate location for such land uses might increase the level of public involvement in the decision-making process and thereby increase the sustainability of the landscape, which is desirable. However, to empower a municipality and (hopefully) the public to conserve CHLs, it is not necessary for the landscape to be formally identified. With a study completed that decision-makers can point to as evidence for suspected cultural heritage resources, further steps can be taken ad hoc to ensure the integrity of the landscape is maintained if and when an application is submitted for development. Thus, tourism ought not to increase due to the study, cultural practices may continue as they would in the absence of the designation, and large developments can be considered through a CHL lens wherein the municipality gains power in the decision-making process.

In the current study it was also found that the idea of municipal cultural landscape planning is inconsistent with a First Nation perspective, but that finding is not necessarily transferrable to other First Nation communities. While it is conceivable that the entirety of the Haldimand Tract in the study area could be identified as a CHL and result in the Six Nations being the final decision makers for acceptable land uses, that too seems like a stretch given the current state of the land claim. Nonetheless, we can look to the Pimachiowin Aki cultural landscape for insight on how cultural landscape identification can be done successfully by First Nation communities.

Pimachiowin Aki – which means "the land that gives life" – is a 29,040 square kilometer world heritage site that is located east of Lake Winnipeg along the border of the Provinces of Ontario and Manitoba. The site is home to four First Nations and was inscribed on the World Heritage List in 2018 after being nominated for designation on three separate occasions. In 2013, the World Heritage Committee deferred the examination of the nomination to allow the State Party, in collaboration with First Nations, to refine and strengthen the boundaries, and to explore whether there is a way that,

> the relationship with nature that has persisted for generations between the Anishinaabe First Nations and Pimachiowin Aki might be seen to have the potential to satisfy one or more of the cultural criteria and allow for a fuller understanding of the inter-relationship between culture and nature within Pimachiowin Aki and how this could be related to the World Heritage Convention.

(UNESCO, 2013)

In the above recommendation, it is clear that the World Heritage Committee is encouraging consideration of First Nation intangible cultural heritage of this landscape. This is especially true with regard to the *inter-relationship* between nature and culture that has persisted for generations.

In the 2016 decision, it was on these grounds, in part, that Pimachiowin Aki was justified to have outstanding universal value. However, just before an announcement was made by the World Heritage Committee, the would be fifth First Nation party to the Pimachiowin Aki nomination – the Pikangikum First Nation - pulled out.[17] In 2018, Pimachiowin Aki was inscribed on the World Heritage List as a cultural landscape. In the nomination document, it is stated that:

> Pimachiowin Aki is directly and tangibly associated with the living cultural tradition of *Ji-ganawendamang Gidakiiminaan* through which Anishinaabeg uphold a sacred trust to ensure *aki* (the land and all its life) is cared for and respected. Anishinaabe customary governance ensures collaborative use of the land, including between neighbouring and related communities. The cultural tradition is maintained across generations through a vibrant oral tradition that includes legends, stories, and songs. The deep and abiding connection between Anishinaabeg and the land through *Ji-ganawendamang*

[17] The reason Pikangikum First Nation withdrew remains unknown. Galloway (2018) states that it was over concerns regarding UNESCO's evaluation report, while Powell (2016) summarizes it as resulting from tribal politics and scar tissue from historical trauma.

> *Gidakiiminaan* is a compelling example of the inseparability of an indigenous culture and its local environment that can inspire people around the world.
>
> (Pimachiowin Aki, 2016)

The central role of the local First Nations not only in working to designate the site, but also their relationship to the land as a central rationale for designation led to not only an acceptable designation, but one that was persistently sought by the First Nations for a considerable period of time. For landscapes in Canada that have significant cultural heritage value and contested land rights, it seems only appropriate that First Nations do not take the role of a stakeholder, but instead the role of government and decision maker.

Thus, there are ways to work across the impasses presented by contested geographies and the negative potentialities of designation in our study area. By not designating landscapes and instead identifying them as potential cultural heritage resources, planners may prevent increasing sentiments of otherness and celebrating injustice while at the same time increasing their capacity to conserve landscapes. By recognizing First Nations as governments with agency and autonomy to designate landscapes on their own volition may not only make the idea of preserving landscapes more palatable, but also ensure that historical relationships with the lands are recognized and safeguarded. Yet, it was only through the interview instrument that these considerations were arrived at. This does not mean that the other methods used in this study are disposable, but rather that interviews were indispensable for understanding what it means to dwell in the landscape. So, while this study has demonstrated that cultural landscapes can be identified from the ground-up using participatory methods, caution ought to be taken before uncritically applying such policy to landscapes of contested property rights, where world views

are inconsistent with the idea of cultural landscapes, and where those who dwell in the landscape may become the spectacle for another's ostensible cultural heritage value.

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Appendix 1

Demographic Survey

The following questions are intended to tell us about the groups of people that completed this survey. The information will only be used to compare the landscapes identified by different groups of people, and **you will not be identified in any way**. If for some reason there is a question you do not want to answer, just leave it blank.

1) What is your gender

- Male
- Female
- Other

2) Could you please provide the first three digits of your postal code

_____

3) If living outside the township, could you please estimate the number of times you visited the township in the last 12 months?

- 1-10
- 11-20
- 21-30
- 31-40
- 41-50
- Over 50

4) How long have you lived in your community?

- 1 year
- 2 years
- 3 years
- 4 years
- 5 years
- 6 years
- 7 years
- 8 years
- 9 years
- 10 years
- More than 10 years

5) Which category best describes your pre-tax household income last year?

- $20,000 or less
- $20,001 - $40,000
- $40,001 - $50,000
- $50,001 - $60,000

- $60,001 - $70,000
- $70,001 - $80,000
- $80,001 - $90,000
- $90,001 - $100,000
- $100,000 or more

6) How would you rate your knowledge of the township for which you identified landscapes?

- Excellent
- Good
- Average
- Below Average
- Poor/little knowledge

7) Please tell us what values are most important to you? (Fill in the blank)

Options to fill in the blanks: Aesthetic, Recreation, Education, Future, Historic, Cultural, Spiritual, Economic, Natural

1. _____

2._____

3._____

4._____

5._____

8) What is the highest level of formal education you have completed?

- Less than high school
- High school certificate
- Trade, apprenticeship, or non-university certificate or diploma
- Some post-secondary education (not completed)
- College
- University degree (bachelors)
- Multiple university degrees (master's or doctorate)

9) Do you or anyone in your family depend on the following sectors for your economic livelihood? Please check all that apply.

- Agriculture
- Hunting or fishing
- Tourism
- Other natural resource _____

10) Are you a member of any of the following groups? Please check all that apply

- Hunting or fishing organization
- Cycling club

- Natural history or bird watching club
- Environmental or conservation organization
- Agricultural organization
- Heritage group or organization

11) How would you characterize your religions orientation?

- Christian
- Muslim
- Mennonite
- Sikh
- Amish
- Hindu
- Buddhist
- Nonreligious (Secular/Agnostic/Atheist)
- Other _____

12) Do you have children and grandchildren?

- No, I do not have children
- Yes, I have children
- Yes, I have children and grandchildren

If you would like the study results sent to you, please contact the research team at 2017uwchl@gmail.com and the results will be sent as they become available.

Thank you so much for participating in this study! If you have any further comments about landscapes in the townships of Wellesley or Woolwich, please add them here

Appendix 2

Evaluation Questions

1. Why did you chose to participate in this activity?

_____

_____

2. Have you participated in an activity similar to this before? _____

3. How Did you hear about this Study? (please circle one)

- Facebook
- Study Website
- Newspaper
- Flyer or handout
- The Study Booth
- Other _____

4. Please estimate, to the best of your abilities, the amount of time spent on this activity.

_____

5. Would you participate in this activity again? (please circle)

Very Likely Likely Not Sure Unlikely Very Unlikely

6. What did you **like** about participating in this activity? _____

_____

_____

7. What did you **dislike** about participating in this activity? _____

_____

_____

8. What would you **improve** about this activity? _____

_____

_____

9. Do you think the Activity you participated in is a good way to involve the public in planning decisions? (circle one)

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

9. a) If you 'Disagree' or 'Strongly Disagree' please explain. _____

_____

_____

10. Did you read the instructions prior to participating? (please circle one)

YES	NO

11. How clear were the instructions? (please circle one)

Very Clear	Clear	Neutral	Unclear	Very Unclear

12. Did this activity allow you to express your thoughts adequately?

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

13. Before participating in this activity, was there a special place you already had in mind?

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

14. Did the prompts and instructions direct you to certain areas?

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

15. Did you learn anything about your environment, landscapes, culture, heritage or history while participating in this activity?

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

If you 'Strongly Agreed' or 'Agreed' please tell us what you learned. _____

_____

_____

_____

16. Has your perception of landscapes changed since participating in this activity?

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

If you indicated agree, or strongly agree above, please explain what has changed. _____

_____

_____

_____

17. Do you think your behaviour will change because of your participation in this study?

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

If you indicated agree or strongly agree above; please explain. _____

_____

_____

_____