Archaeologists and Indigenous Traditional Knowledge in British Columbia

by

Eric Simons

B.A. (Archaeology) Simon Fraser University, 2014

B.F.A. (Visual Arts) Simon Fraser University, 2006

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Name:	**Eric Simons**
Degree:	**Master of Arts**
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Examining Committee: **Chair:**   **Catherine D'Andrea**
Professor

George Nicholas
Senior Supervisor
Professor

Dana Lepofsky
Supervisor
Professor

Annie Ross
External Examiner
Honorary Associate Professor
School of Social Science
The University of Queensland, Australia

Date Defended/Approved: July 21, 2017

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Abstract

Archaeologists who study the past histories and lifeways of Indigenous cultures have long used Indigenous traditional knowledge as a source of historical information. Initially, archaeologists primarily accessed traditional knowledge second-hand, attempting to extract historical data from ethnographic sources. However, as archaeologists increasingly work with (and sometimes for) Indigenous communities, they have the opportunity to access traditional knowledge directly. Traditional knowledge is a powerful resource for archaeology, but working with it raises significant socio-political issues. Additionally, integrating traditional knowledge with archaeology's interpretive frameworks can present methodological and epistemological challenges.

This thesis examines the implications of archaeologists' engagement with traditional knowledge in British Columbia, Canada, where changes at both a disciplinary and broader societal level indicate that archaeologists will increasingly need to find effective and ethical ways to work with traditional knowledge (and knowledge-holders). Through a series of in-depth interviews with practicing archaeologists from around the province, I explore how personal histories, professional circumstances, social realities, and theoretical frameworks affect how traditional knowledge is used in British Columbian archaeology. I conclude by highlighting five emergent interview themes: 1) the significance of personal background and social context in determining how researchers approach traditional knowledge; 2) the importance of long-term relationships between archaeologists and individual First Nations communities; 3) the value of traditional knowledge for illuminating more "ephemeral" aspects of the past; 4) the need for researchers to develop regionally and culturally specific understandings of traditional knowledge in order to work with it responsibly; and 5) the tension between studying Indigenous epistemologies and incorporating them into archaeological interpretations.

Keywords: Indigenous traditional knowledge; British Columbia Archaeology; Epistemology; Oral History; Indigenous Heritage; Intellectual Property

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Finally, much gratitude to my family and friends, and to my cohort, who often served as both. Your encouragement, support, and companionship made the winding road of this research not only navigable but also a pleasure.

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List of Acronyms

BCAPA	British Columbia Association of Professional Archaeologists
BCHCA	British Columbia Heritage Conservation Act (1996)
CRM	Cultural Resource Management
IPinCH	Intellectual Property Issues in Cultural Heritage
SFU	Simon Fraser University
TEK	Traditional ecological knowledge
TK	Traditional knowledge

Chapter 1.

Introduction

…the central revelation of anthropology [is] the idea that the world into which you were born is just one model of reality, and that the other people of the world are not failed attempts at being you, but rather are unique answers to a fundamental question: what does it mean to be human and alive?" (Wade Davis 2009)

Every culture develops methods for passing down its knowledge—all that is learned through experience, by a culture's individuals and communities, about living in the world. This knowledge includes the *what* (the phenomena of lived experience), the *when* (conceptions of chronology), the *who* (relationships with other peoples and other species), the *where* (knowledge of environment, perceptions of place), the *how* (knowledge of lifeways, of sustaining the body and spirit), and the *why* (philosophies and cosmologies). When anthropologists speak of Indigenous "traditional knowledge" (TK), it is, most broadly, this body of knowledge that they refer to. TK includes not just direct historical knowledge, such as oral and written histories, but all knowledge deriving from a culture's past.

Archaeology is, by definition, the study of past human activity through material remains. Toward that aim, archaeological technique draws widely from the ideas, methods, and technologies of various other disciplines—geology, geography, physics, chemistry, biology, anthropology, and history, among others—in order to construct histories of past peoples who are chronologically, and usually culturally, distant. When archaeologists have the opportunity to study a material past with direct ties to living, descendent communities, an entire other realm of information potentially becomes

available[1]: the Traditional Knowledge of that culture, providing insight not just into the *what, where* and *when* of the past, which archaeology tends to best equipped to investigate directly, but also the *who, how, and why*.

Anthropologists have approached TK directly—recording it (ethnography) and conducting comparative studies of it (ethnology). Historically, archaeology's approach to TK has often been less direct in two ways: 1) archaeologists have tended to access TK via ethnographic studies; and 2) archaeology's use of ethnographic knowledge has often been directed toward reconstructing knowledge of the past by examining the material culture produced by contemporary cultural practices—an act of analogy. Each of these aspects of the archaeological approach has been refined over time, as the discipline has become more critically aware of the biases involved in the ethnographic practice and the potential theoretical pitfalls of analogical reasoning.

However, archaeologists are increasingly also approaching TK more directly, gathering knowledge from descendent communities as part of a primary research process and as a result of closer working relationships with Indigenous communities. This direct engagement confers advantages for archaeologists, allowing them to seek out and assemble TK that specifically relates to their own studies. It also demands that archaeologists grapple directly with the challenges of effectively and ethically gathering information from living descendent communities, as well as with the potential difficulty of integrating an individual culture's understanding of its own past with archaeological approaches to constructing history (a difference of epistemologies).

Power imbalances always exist in social research, depending on the control and agency possessed by the informant in relation to the researcher. But these challenges are magnified when archaeologists study cultures not their own, where power imbalances exist at a society-wide, cultural level. This imbalance is pronounced in areas with a colonial history. Where archaeologists hailing primarily from the dominant society study the cultures of those who have historically been marginalized, the act of accessing TK and integrating it into archaeological interpretation is attended by additional layers of social challenges and dangers. These include, but are not limited to, legal ramifications

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[1] Available in a limited way, constrained by access to and understanding of that knowledge, part of which will remain out of reach to researchers studying societies not their own.

(Indigenous rights to land and autonomy), intellectual property issues, and concern as to whose voices are given social authority to define an indigenous culture's history.

Traditional Knowledge and Archaeology: British Columbia

Today, many British Columbian archaeologists do inventive archaeological work that often is informed by traditional knowledge. The province is home to a rich diversity of First Nations—30-40 major ethnic groups (Muckle 2014:25)—each with their own distinct (though culturally contiguous) traditional knowledge system, making it a potentially fruitful area in which to conduct TK-informed archaeology. However, in British Columbia, as in all of Canada, the vast majority of archaeological research is conducted by those with non-Indigenous heritage, on Indigenous (First Nations) cultures. Archaeology here is and has always been practiced in a colonial context, with all the aforementioned attendant complications.

Recent social and legal developments in British Columbia, as well as changes in how archaeology is practiced, have and will continue to affect the relationship between TK and archaeology. Chief among them:

- Traditional knowledge is frequently invoked in Indigenous legal contexts, particularly those dealing with rights and title (land claims), with the validity of that knowledge tested by the courts. Historically, this knowledge has often not been accepted without corroboration by other sources (such as archaeology), though this has begun to change (Cruikshank 1992; Miller 2011; Ridington 2014; Weir 2013), notably in recent landmark Crown rulings recognizing TK as admissible, credible historical evidence (notably *Delgamuuk'w v. B.C.* [1997] and *Tsilhqot'in Nation v. B.C.* [2014]). However, despite these and other precedents, traditional knowledge alone is often not sufficient to safeguard places and practices of important Indigenous heritage, compelling First Nations engage with compliance-based archaeology.

- On the one hand, First Nations communities are increasingly hiring and training their own archaeologists, directing research, and developing new ways to share and safeguard their heritage (e.g., Klassen et al. 2009; Yellowhorn 2012). On the other hand, archaeology in British Columbia is

largely conducted by private, cultural resource management companies, with research predominantly initiated by the development of commercial interests.

- Archaeologists in this province routinely include traditional knowledge as part of a multidisciplinary approach, to produce research that expands upon archaeology's interpretive capacity (see Chapter 2 for many examples). However, heritage legislation in this province appears to not have kept pace with this growing disciplinary flexibility, preferentially recognizing some forms of material culture while overlooking areas with more ephemeral material remains (see Chapter 4).

These developments, among others, suggest that First Nations' traditional knowledge has a significant but not uncomplicated role to play in British Columbia's future, within, but also beyond, the realm of archaeology. This lends import and urgency toward the development of a better understanding of how this province's archaeologists approach the use of traditional knowledge—methodologically, socially, and epistemologically.

Research: Purpose and Approach

My thesis research sought to better understand, through interviews, the approaches archaeologists in British Columbia take to working with TK—why they value it, in what ways they access it and incorporate it into their methodologies and interpretive schemes, and how they understand the nature of traditional knowledge in relation to archaeological knowledge. This last aspect, which I characterize as an epistemological consideration, is fundamental to this research. However, as this thesis endeavours to demonstrate, epistemology is a theoretical concept only made meaningful when understood as a social process grounded in lived experience. It is with this consideration in mind that I designed the particulars of the research project.

British Columbian archaeologists have already developed an array of tools and methods with which to engage with TK, as evidenced by the profuse examples of the application of TK to British Columbian archaeological research (e.g., Acheson 1995; Hall 2003; Jackley 2012; Johnson 2010; Martindale and Marsden 2003; Mathews 2014; McLaren 2003; McMillan and Hutchinson 2002; Schaepe 2009; Springer 2009, to name just a few). However, while many have documented and reflected upon their

engagement with TK in their own research projects (e.g., Angelbeck 2007; Angelbeck and McLay 2011; Hammond 2009; Martindale 2006; McKechnie 2015; White 2006), few have published academically about the relationship between archaeology and TK in more general terms, nor examined how that relationship plays out in the province as a whole (some exceptions: Cruikshank 1994, Klassen et al. 2009; Martindale and Nicholas 2014, Nicholas and Markey 2014, Thom 2003, Turner et al. 2013, Yellowhorn 2012).

Furthermore, Cultural/Heritage Resource Management archaeology (CRM/HRM; i.e., private, contract archaeology) today represents the dominant form of archaeology in BC, both in financial resources and employment of archaeologists (La Salle and Hutchings 2012[2]). While the professional obligations of CRM result in a profusion of report writing, these reports predominantly remain the private property of industry, First Nations, and the BC Archaeology Branch. The nature of CRM report writing (with its emphasis on compliance-based reporting over theoretical reflection) and its relative inaccessibility (termed "grey literature") means that it also does not provide a forum for cross-disciplinary conversation on the subject of working with First Nations knowledge.

As a result, the ideas and experiences held by British Columbia's archaeologists about the relationship between TK and their practices are, at a provincial scale, largely undocumented. To address this gap, I interviewed 22 archaeologists who work in British Columbia to better understand the nature and trajectory of their own professional engagement with traditional knowledge. Respondents represented a broad cross-section of those working in the province (from within academic and private sectors, various sub-disciplinary specializations, and of diverse ages, educations, and cultural ancestry, including First Nations). I developed an interview framework designed to explore a depth of epistemological rumination that most archaeological writing understandably does not allow space for. As Michael Klassen (March 15, 2016[3]), who has written extensively on his archaeological work with and for First Nations peoples in British Columbia, put it, "I rarely have the time to articulate this kind of stuff."

My interviews were guided by four primary questions:

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[2] Their study largely evidences the *growth* in CRM in British Columbia, but does highlight the difficulty in gathering data on the gross/relative size of the industry.

[3] This citation, and all that follow in this format, refer to the interviews conducted for this research. See Table 4.2 for the full list.

1) What research value(s) do British Columbian archaeologists ascribe to TK?
2) To what degree do they incorporate TK into their research?
3) What factors—practical, social, or theoretical—challenge British Columbian archaeologists who are interested in integrating TK, determining how or when they are able to do so?
4) How can TK be better (methodologically, ethically, epistemologically) incorporated into British Columbian archaeological research?

Using the information provided by these interviews, as well as that found in the published literature, I aimed to produce a critical investigation of British Columbian archaeology's current approach to incorporating TK into its disciplinary practice. While the limited size and selection bias of the respondent pool prevented this research from being able to speak authoritatively or comprehensively to British Columbian archaeology as a whole, the study identified significant contemporary opportunities and challenges regarding productive and ethical TK integration in the province. This research is intended to contribute to disciplinary self-knowledge, primarily in regards to this province's archaeological practices, but also to the discussion of archaeology-TK interaction internationally, adding voices of British Columbian archaeologists to the global conversation.

Thesis Structure

In Chapter 2, I review my background literature research, first exploring definitions and conceptualizations of "traditional knowledge." I then examine ways in which archaeology has approached TK, focussing on British Columbia, where case examples illustrate how archaeologists in this province have worked with TK. Finally, I identify both perceived opportunities as well as methodological, social, and epistemological concerns for the discipline as a whole. In Chapter 3, I describe my research methods, with a focus on my interview process—the reasons I chose an in-depth interview approach, how the interview framework was drafted, and my respondent selection criteria. Chapter 4 is a presentation of my interview results, wherein I provide, on a question-by-question basis, both a synthesis of the responses I received as well as many specific ideas and anecdotes. In Chapter 5, I re-examine those results, identifying and discussing a number of broader themes that emerged from the interview process, as well as how those

responses compared to the concerns identified in the literature review and what additional avenues of research were suggested by my results. Finally, in Chapter 6, I propose the particular value of this research, as well as identify future challenges and opportunities for TK integration in British Columbian archaeology.

Chapter 2.

Background: Archaeology and Traditional Knowledge
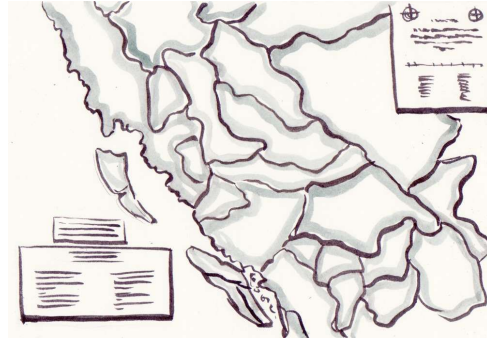
Archaeologists' use of Indigenous traditional knowledge, while historically productive, has been and remains a socially and epistemologically complicated enterprise. Archaeologists range widely in their willingness to consider TK in terms equivalent to archaeologically derived data, while among Indigenous communities there is a similarly wide range of ideas regarding what constitutes appropriate use of TK. Judging by the global literature, archaeologists appear—increasingly, over particularly the past two decades—to recognize the value of TK to their studies, and are becoming interested in developing methods for confidently integrating TK into archaeology's interpretive schema and ethical frameworks. However, significant concerns have been raised about the epistemological problems of incorporating "another way of knowing" into archaeology (see, e.g., Mason 2000, 2006; McGhee 2008; Stump 2013; Whiteley 2002), and archaeologists continue to wrestle with how they can incorporate TK in ways that serve both Indigenous and archaeological best interests. Issues such as the evidentiary weight and methodological handling of oral histories and material evidence, the epistemological differences between First Nations and Western ways of knowing, and the appropriate and ethical handling of TK by researchers remain works in progress.

The literature I review in this chapter was selected with three central questions in mind: What compels archaeologists to study TK? When archaeologists incorporate TK into their interpretive frameworks, how can it be done in a way that is ethical, socially reflexive, and returns value to traditional knowledge holders? How different or reconcilable are the epistemologies of Indigenous and Western thought?[4] These

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[4] There is clearly no simple dichotomy between Indigenous and Western thought. Both "thought systems" comprise myriad cultures and multiple epistemological underpinnings. In this thesis

questions were intended to investigate the various ways in which interaction between archaeological and traditional knowledge might be attractive to researchers and Indigenous communities and, when that interaction takes place, how compatible or comprehensible Indigenous and Western knowledge systems are to each other.

The bulk of this chapter provides a general overview of various relationship dynamics between TK and archaeology, with a particular emphasis on apparent synergies and tensions (social and epistemological) between the "two" knowledge frameworks. A brief history of archaeology's engagement with TK is also presented, with a special focus on British Columbia, providing some regional context for the interview material presented in Chapter 4.

Defining Traditional Knowledge

What the term "traditional knowledge" precisely refers to, and what it encompasses, is not straightforward or self-evident. This is the case even if the concept of TK is restricted to applications to Indigenous cultures, as it is in this thesis. A consideration of terminology is thus a necessary place to begin. Many related (i.e., overlapping but not synonymous) terms appear in this chapter (and indeed the scholarship it is based upon), including "Indigenous knowledge," "oral knowledge," "oral tradition," "oral history," "traditional ecological knowledge," and others.

Oral history or *oral tradition* are terms often used synonymously with traditional knowledge. However, as I discuss later, orality is only one of the ways in which TK is transmitted between people and through time (Damm 2005; Jones and Russell 2012). Also, some (e.g., Echo-Hawk 2000; Mason 2006) reserve *oral history* exclusively for knowledge of directly-experienced events—a history with time depth only equal to the oldest living community members—thought this is not consistent across the literature nor common parlance. As such, I have instead chosen to utilize the term and concept of "traditional knowledge" throughout this thesis and my interviews, because in its expansiveness it comes closest to encapsulating the full range of Indigenous knowledge

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there is some necessity and utility to generalize about the "two", but it is done with caution, conscious of the danger of essentializing—overstating similarities within either or differences between.

(and knowledge transmission media) accessible and relevant to archaeological concerns.

"Traditional knowledge" is, however, an unavoidably "othering" and generalizing term. In much the same way that the term "Indigenous" is dialectically defined in opposition to a dominant (usually colonial) non-Indigenous population, in North America TK is predominantly used to designate knowledge systems that are markedly different from the modern Western knowledge systems dominant in a colonial (what Martindale and Nicholas term the "dominant racial taxa" [2014:441]) context[5]. This, I believe, is the fundamental awkwardness of "traditional knowledge" as a term. It is predominantly used (as it will be in this thesis) to speak to the concept of a pan-Indigenous knowledge of the past—what are in fact a various collection of unique ways of knowing the world. It is ultimately an attempt to lump into a single concept innumerable Indigenous knowledge systems, the greatest commonality of which is likely simply that they differ from Western thought[6].

Perhaps then, the term's utility is not so much in accurately describing a unified concept as it is in articulating/referencing that there *are* important epistemological differences at play in contexts where Western and Indigenous knowledge systems interact (or compete). In archaeology practiced in colonial contexts, this epistemological and social tension is between the knowledge systems that inform archaeological science and the knowledge systems of the Indigenous cultures that archaeologists predominantly study.

How then can TK be understood as a generalized concept? Most expansively, perhaps, TK could be said to encompass all of an Indigenous culture's experience-derived understandings about how to live in the world. TK systems are bodies of knowledge, with historical continuity but persisting into the present as living traditions. TK is the embodiment of cultural memory, both a collection of understandings that

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[5] People native to the United Kingdom, for example, possess their own culturally unique form of traditional knowledge, but the term TK is less commonly employed to describe this sort of knowledge.

[6] Generalizing about "Western thought" is, perhaps, equally problematic. But for the purpose of this thesis it serves as a shorthand for post-Enlightenment rationalism, foundational for Western sciences, including archaeology.

individuals in a community hold, as well as a process of remembering and forgetting that is enacted through particular practices and relationships (Jones and Russell 2012).

TK is not limited to historical chronicles—it may comprise any of the subjects we find in written knowledge, such as social commentary, self-reflection, cosmology, practical instruction, and descriptions of the land and other species (Bruchac 2014:3814; Cruikshank 1994:403). Nor is TK a single medium. In addition to oral traditions and writing, it can be passed on through various sorts of 'performance': song and dance, storytelling, demonstration, and ceremony (Bruchac 2014:3815). It can also be held in visual imagery and sculpture, mnemonic objects, embodiment, and even landscapes (including imaginary ones) (Johnson 2000; Jones and Russell 2012:270). Perhaps it is best to think of TK—like all cultural knowledge systems—as an interactive, dynamic "mixed-medium."

TK and Archaeology

Ultimately, "traditional knowledge," whether as a term or concept, describes knowledge that has cultural continuity, that is the product of experience distinct to a given culture, and that likely exists into the present because it remains practically or culturally utile. There is no single answer to the question of how "old," or how many generations of pedigree cultural knowledge must have in order to be considered "traditional," in the same way that there is no single answer to the question of how old material culture must be to be considered of historical significance. When we consider how archaeology interacts with TK, these parallel questions interrelate: for the purposes of archaeology, "traditional knowledge" could be understood to signify knowledge that is rooted in whatever level of antiquity is the focus of the particular archaeological research in question.

Historical relationship

Even in its early formative period, preceding the twentieth century, archaeology took an interest in a variety of manifestations or forms of cultural memory. These ranged from traditional folklore to classical mythology and religious narratives, and eventually came to include Indigenous oral traditions collected in colonial territories. In one sense, this curiosity stemmed from many of the same interests that researchers hold today: the

potential for cultural narratives to provide historical detail and chronology, and to describe cultural variation (Jones and Russell 2012:271).

Beginning in the late nineteenth century, as the discipline of anthropology developed its study of non-Western societies, particularly in colonial contexts, the sub-discipline of ethnology and the practice of ethnography were increasingly practiced (Trigger 2006:180-182). Ethnographers began to record observations of Indigenous peoples, but also attempted to capture those peoples' own knowledge of the land and of themselves. Early ethnographies often compartmentalized TK, teasing out and recording those aspects of knowledge that were of interest to Western study. Margaret Bruchac (2014:3819) notes that "Ethnographic studies recorded biological identifications, hunting activities, naming practices, and linguistic structure as discrete bodies of data, without full consideration for the Indigenous philosophies that guided complex relationships among these forms of knowledge." Julie Cruickshank (1994) characterizes nineteenth-century anthropologists' approaches to oral knowledge as comparable to the typological approaches to material culture that informed cultural-historical archaeology of the same period: narratives tended to be "collected," treated as disembodied, and often disconnected things to be documented and analyzed historiographically, but often not understood holistically, in relation to a culture's knowledge and worldview as a whole. This resulted in both the loss of an emic, contextual understanding of much TK, as well as the disregard for Indigenous knowledge-sharing protocols.

The emergence of processual archaeology in the mid-twentieth century saw increasing importance placed on the value of cultural ethnography of Indigenous peoples as a potentially valuable resource for analogical understandings of past lifeways (see Longacre 2010 for a brief history). However, processual archaeology's assertively scientific orientation, while developing a framework for using anthropological observation to help interpret past material culture, created a disciplinary climate unconducive to archaeologists interested in grappling with Indigenous knowledge systems on their own epistemological terms; the discipline's increasing adherence to an unequivocal rationalism and methodology based on the verifiability of facts left less room for alternate approaches to history and knowledge creation (Wilcox 2010). In the late twentieth century, "relativistic" approaches emerged under the banner of postprocessualism, as many archaeologists fought to broaden the discipline, to reclaim a balance (see VanPool and VanPool 1999) between positivistic archaeological science and the historical

particularism characterized by early twentieth century Boasian anthropology. Postprocessualists also endeavoured toward both disciplinary self-reflexivity (as early as Clarke 1973; see also Hodder 1985) and awareness of the social contexts in which archaeology is practiced (e.g., Conkey 2005; Echo-Hawk and Zimmerman 2006; McGuire and Walker 1999), as well as the subjectivities inherent in research. As a result, archaeology appears to be increasingly willing to consider multiple cultural forms of knowledge, as well as to question the core epistemological tenets of archaeological science.

History of TK use in British Columbian archaeology

Archaeology in British Columbia followed a similar trajectory in the twentieth century, with archaeologists initially utilizing ethnographies and oral traditions as background research to their culture-historical archaeological investigations (to cite a few of many examples: Alexander 1992; Allaire et al. 1979; Ames 1981; Baker 1970; Borden 1970; Burley 1980; Carlson 1979; Haggarty 1982; Hobler 1970). Others—notably Gordon Mohs (1987), Wayne Nelles (1979), and Wendy Wickwire (1991) (and, less directly, Hugh Brody [1981])—produced research that critically examined practical, social, and epistemological issues surrounding TK integration in British Columbian archaeology— laying remarkably early groundwork for a reflexive examination of the subject in the province.

Since the turn of the twenty-first century, there has been a profusion of archaeological research in British Columbia that has examined TK alongside archaeological evidence in order to assemble a fuller understanding of this province's culture history. Some has taken a direct approach to comparing and comingling oral traditions with archaeological investigation, looking for both productive synergies and incongruities between archaeological and Indigenous knowledge of the past (e.g., Hall 2003; Jackley 2012; Martindale 2009; Martindale and Marsden 2003; McMillan and Hutchinson 2002; Schaepe 2009; Springer 2009). Other research has used TK to better understand First Nations worldviews, informing research design, methodologies, and the interpretation of archaeological material (e.g., Angelbeck 2009; Angelbeck and McLay 2011;Johnson 2010; Martindale 2006; Mathews 2014; McKechnie 2015; White 2006).

Much of the TK-informed archaeological research that has been undertaken recently in this province combines historical ecology, archaeology, and TEK in an effort to better understand the history of plant- and animal-use practices of British Columbian First Nations. While this research includes many studies of Indigenous management of specific plant and animal species, it has also tended to take a wider social view, examining, for example:

- gender-associations in food gathering practices (Moss 1993);

- the value of Indigenous plant names, descriptions, and oral narratives to illuminate indigenous historical perceptions of landscape (Johnson 2000);

- details about the historical relationships between First Nations peoples and culturally salient species, as well as historical relationships between First Nations communities themselves (through evidence of knowledge transmission) (Turner 2014);

- the potential role that TEK can play in identifying subtle land-use practices that the material analysis of archaeology might (and often does) miss (Deur 2010; McDonald 2005; Oliver 2007; Williams 2006);

- the degree to which First Nations people cultivated their landscape, through horticulture, mariculture, fishing and hunting practices (Deur et al. 2015; Lepofsky et al. 2005, 2017; Moss 2005; Oliver 2007; Thornton et al. 2015; Trusler and Johnson 2008);

- how ethnobotany can be productively incorporated into archaeological methodology (Lepofsky and Lyons 2013); and

- how TEK and historical ecology might provide an understanding of past landscape use that could inform future land-use practices in this province (Groesbeck et al. 2014; Turner et al. 2013).

Still others have turned their research lens on the social context that British Columbian archaeology is practiced within, examining:

- how archaeology—and more broadly, cultural heritage stewardship—is affected by its colonial legacy, raising issues such as: how access to heritage is

controlled, and competing cultural perspectives on the past are resolved (Hammond 2009);

- the importance of recognizing the autochthonous nature of oral traditions as well as the potential benefit of using oral narratives to inform and contextualize archaeological knowledge in order to increase its utility for First Nations communities (White 2006; Yellowhorn 2012);

- the archaeological practice of Traditional Use Studies, their tendency to exclude Indigenous knowledge and conceptualizations of landscape, and the social and legal ramifications of that bias (Markey 2001); and

- what impact the trend in this province toward increasing First Nations control over their own heritage sites, artifacts, and information will have on the Indigenization of archaeology, including the importance placed on First Nations knowledge traditions regarding the landscapes of the past (and present) (Klassen 2013; Klassen et al. 2009).

Contemporary interpretive context: myths of homogeneity and dichotomy?

As noted in my discussion of terminology, determining what is *Indigenous* about Indigenous knowledge or *traditional* about traditional knowledge is fraught with ambiguity (Green 2008). What seems evident is that conceptualizing the relationship between Indigenous and Western thought as a dichotomy is in many ways unhelpful: "Much of the perceived incompatibility between science and other knowledge systems also arises from treating Western science or IK [Indigenous knowledge] as a singular entity when in fact both have multiple forms and dimensions" (Bohensky and Maru 2011:6). This statement also implicitly highlights another problematic presumption: the association of Western thought with science, and Indigenous thought with non-science (addressed by Anyon et al. 1996; Cruikshank 2005; McMillan and Hutchinson 2002; Scott 1996; Wilcox 2010).

Like traditional knowledge, Western knowledge is heterogeneous. It contains a multitude of understandings of the world, frameworks ranging from rational science to humanities-based interpretive schemes, to religious and other "non-rational" systems. Some "traditional" Western knowledge, for example that which is contained in the

Abrahamic religions, takes a similar stylistic approach to narrativization as does much TK—it speaks in a historical voice, but also uses allegory and metaphor to efficiently communicate big ideas and understandings of social belief and morality (Wilcox 2010).

There are certainly dominant epistemological modes in every culture. They are what we connote when using terms like "Western *rationality"* or "*traditional* knowledge,*"* and are of interest to many socio-critical sub-disciplines of archaeology, including Marxism, feminism, and Indigenous archaeology. These theoretical lenses compel us to view dominant social constructs critically, and recognize the value of less dominant ways of thinking (see, as perhaps the most notable example, the emergence of "critical archaeology" [Leone et al. 1987]).

Like Western rational thought, traditional knowledge frameworks are adaptable; they are not static, and develop in much the same ways as any knowledge system (Damm 2005). Herein lies another problem with the term "traditional knowledge." The appellation "traditional" risks denoting a knowledge system that is more situated in the past than Western knowledge (which ostensibly shed its "traditional-ness" through the process of the Enlightenment and refinement of secular, rational reasoning). However, as Charlotte Damm (2005:76) writes, regarding TK: "The teller of stories often incorporates new information and experience in existing stories, and elements considered of little importance for the key issues may be altered or modified." In these ways, traditional knowledge systems are as "contemporary" and flexible as Western science—they adapt to the needs and realities of modernity, of a colonized and multicultural landscape, hybridizing in the process (Tveskov 2007).

Veronica Strang (2006:981) argues that "anthropology is essentially dialogic, and its theory and practice should be considered as the epistemological product of a long-term multicultural exchange and synthesis of theories and knowledges." The picture Strang paints is that of, as her article's title[7] suggests, 'happy coincidences', whereby interaction between anthropologists and Indigenous peoples has created, if not a hybrid form of thinking, an anthropological body of thought and methodology that is both richer for and a product of the accommodation of other worldviews. So does the heterogeneous, dynamic nature of both TK and Western thought, and the ways in which

[7] "A Happy Coincidence? Symbiosis and Synthesis in Anthropological and Indigenous Knowledge."

they have (perhaps unevenly) borrowed from each other, mean that archaeologists can dispense with concerns over dramatic epistemological or social tensions between the "two" systems?

Contemporary interpretive context: biases of form?

During the past two decades, many have sought to formulate a balanced approach to incorporating TK into historical research (see, e.g., Henige 2009; Kuznar 2008; Wylie 2002), though the debate over how TK should be evaluated and interpreted in the context of Western research remains unresolved. This epistemological tension appears to be rooted, for one, in the forms that TK tends to take—how the ways it is encoded and transmitted differ from that of archaeology-derived historical accounts.

That the term "prehistory" is still widely used in archaeology implicitly suggests both a primacy of the written record and that other forms of knowledge are not equally viable ways of recording the past (implying that many Indigenous people lack a sense of historical self-knowledge equal to that of societies with longer histories of literacy) (Echo-Hawk 2000; Wilcox 2010). This is referred to as "bibliocentrism"—a Western bias toward its own forms of knowledge keeping (Echo-Hawk 2000:285)—a prejudice in the West that favours the written word as most reliable (Whiteley 2002). Why, Whiteley asks, are we generally comfortable to ascribe a measure of historical validity to the Bible, at least insofar as to believe its narrative is woven around an accurate historical core? It is, he argues, its textual form. This is a bias that affects archaeological valuations of TK, particularly oral traditions, as historical evidence. It appears to be at least partially the result of Western culture having far more familiarity with and advanced techniques for textual/literary analysis than for "reading" oral narratives.

Indigenous cultures have for millennia developed various ways of producing, refining, transmitting, and preserving knowledge, largely without using written notation, while on the other hand Western culture has developed to be skeptical of non-written information and the process of non-literary transmission in general. Western science perceives the historical detail of TK inevitably degrading over generations, as a result of "inherently undependable" (primarily oral) transmission methods. Archaeology is fundamentally materialist—the written word can be incorporated into its interpretive framework (and indeed is the preferred form for disseminating archaeological

information), but oral traditions make for a more uneasy fit. This suggests a need within archaeology for an interpretive framework—one that facilitates both the integration of non-textual forms of knowledge into archaeological interpretive schemes, as well as for understanding the dynamic, living nature of oral traditions (an aspect researchers tend to particularly distrust, seemingly preferring relatively "static" data such as writing and material evidence).

One attempt at such a framework is anthropologist Jan Vansina's (1985) model of "three-tiered" patterns of oral tradition preservation. It was developed to explain the ways in which oral traditions preserve knowledge: the top tier represents recent remembrances, chronologically ordered and accurate, though becoming more sparse the further back in time one goes; the second tier is actually a lacuna, what is termed the "floating gap"; the third is comprised of various events that lack chronological specificity, but which over time have become fused into a meaningful narrative and body of cultural knowledge (origin stories and mythology would most often fit into this category). While this may be a useful general description of process—the ways in which TK tend to be encoded and selectively transmitted—Vansina offered scant methodology for how to determine into which of the three tiers a given "piece" of oral tradition might best fit, nor how categorizing TK in such a way should inform how it is handled in historical research contexts.

Herein lie two of the core problems for interpreting TK through the lens of Western science. First, how can archaeologists, trained primarily in the methods, theories, and technologies of analyzing material culture, develop a similarly robust hermeneutic approach to analyzing less static legacies of the past, such as oral traditions? And second, how can archaeologists develop a methodology to distinguish between historical data (presuming that is of primary interest to archaeologists) and more metaphorical, cosmological, or mytho-historical information? Is this even a meaningful distinction?

This difference in epistemological approaches is pertinent when considering how Western scholarship approaches Indigenous knowledge, and not just in regards to the external verifiability of TK but also how researchers from outside and Indigenous culture might come to comprehend TK on its own terms. As traditional knowledge is rooted in *place*—containing unparalleled regional expertise—and cultural narrative, to plumb it for

historical fact is often to miss much of what is actually being said (Rosaldo 1980). Oral traditions, for example, are passed between select people in culturally specific contexts and culturally specific ways. As a result, oral knowledge is less meaningful when recorded as documents, concretized, taken out of cultural context, and made ready for retrieval at any future time by any audience. Oral traditions live in the act of telling, and are not meant to function as things to be recorded statically (rather they are "stored" in people) and then analyzed for meaning at some later date. Putting oral traditions into written forms is essentially reductive, and not without cultural impact (Anyon et al. 1996). Not only does it change the context of transmission, but it potentially wrests interpretive control of traditional knowledge away from Indigenous peoples. Echo-Hawk (2000) prefers to use the term "oral documents" in reference to oral knowledge, perhaps implicitly suggesting that oral knowledge is, in its orality, as "transcribed" as it needs to be.

While many Indigenous historical narratives include what could considered fantastical or mythical elements, these clearly have their own historical significance. Nancy Turner (2014: volume 2:232) is adamant that mythological narratives, in fact, be considered *true*, stating "they reflect different *dimensions* of truth, serving as parables and ways of remembering the past, encoding memories, lessons, and approaches, and passing them on to future generations in an effective and meaningful manner". In another sense, she writes, this "conflation" of the spiritual and profane worlds is in fact historically accurate—in the past, on the Northwest Coast, these two worlds did intermingle more than they do today; in fact in many ways they have always been inextricably entwined. These truths, then, convey more than facts—they contain important cultural ideas, suggestions of unique cultural epistemological values and worldviews, that act outside of historiography's chronologically oriented aim.

Does the oral, narrative, and occasionally mythological quality of some TK unavoidably set it apart from archaeology, putting it beyond the scope of scholarly critical analysis and compromising its value as historical evidence (Echo-Hawk 2000:270)? Robert Kelly (1998:3) argues that it at least partially does:

> What about situations where archaeology and traditional histories conflict
> with one another? For example, did the ancestors of Native Americans
> come from Asia via the Bering Strait more than 12,000 years ago? Or did
> they originate here, as some Native Americans argue? Honesty compels

me to answer these questions in the same way I would respond to a Christian fundamentalist about human evolution. Archaeology is all about things located in time and space. Religion and traditional histories often place things in space and time, and these claims can be subjected to scientific scrutiny, but they fundamentally encode knowledge that is timeless and spaceless. These non-material claims cannot be studied scientifically. This most emphatically does not mean that they are therefore wrong, irrelevant, or uninteresting; it just means that their evaluation lies in some other realm of inquiry.

Kelly's view is not uncommon, articulating a widely-held skepticism of how commensurate or compatible Western and Indigenous historical knowledge might be.

TK and Science

Two major roadblocks to TK/Science integration appear primary. The first is social, and involves a question as to whether true (proportionate) integration can take place when the cultures that tend to wield each of these respective knowledge systems do not exist in a state of power parity, and when information sharing does not tend to flow equally in both directions. The second revolves around issues of ontology and epistemology—are TK and Western science ultimately incompatible, too distinct to speak directly to each other, because their respective methods for creating and transmitting knowledge are fundamentally different (Bohensky and Maru 2011; Cruikshank 2005)? The former question will be explored more fully later in this chapter; the latter is discussed below.

Are Indigenous traditional knowledge systems scientific? This would appear to be a significant question for archaeologists, largely self-identifying as a scientists, when they consider the knowledge-claims of TK. Lesley Green (2008:150) outlines two positions typical of this debate:

Political scientist Arun Agrawal argues that 'attempts to draw a strict line between scientific and Indigenous knowledge on the basis of method, epistemology, context-dependence, or content…are ultimately untenable' (2002:293; 1995). [Alternately,] Robin Horton (1993), for example, argues that science is 'open' to question its own claims while traditional knowledge is 'closed' to the possibility that its truths are questionable. The argument recapitulates Levi-Strauss' comparison of 'hot' and 'cold' societies—the one being open to change and innovation, and the other static. The argument is deeply flawed: learning, innovation and change could not have occurred at all if societies were 'cold' or 'closed'.

While the dynamics of knowledge creation and verification do operate in traditional knowledge systems (Cajete 2000), there are some differences in the way traditional knowledge systems tend to function in comparison to Western science. These include different aspirations toward objectivity as well as notions of appropriate protocols for knowledge sharing. Other apparent differences exist too, including the level of holism/particularism each knowledge system approaches the world with (e.g., to what degree do biological and "mythological" understandings of animals intermingle?), and the ways that each encodes and relays information. In the following two sections, synergies and then discontinuities between TK and science (inasmuch as archaeology operates with broadly scientific methods, goals, and epistemologies) are reviewed.

TK and archaeological science: synergy

The degree to which traditional Indigenous knowledge systems make claims to being "scientific," or are characterized by outsiders as containing scientific dispositions, varies. The notion of Western science, as an explicitly defined methodology and epistemology, developed largely outside the contexts of Indigenous societies. This does not, however, necessarily suggest that Indigenous knowledge systems have not, autonomously, produced methods of developing and testing knowledge akin to Western scientific approaches. The following authors speak to this directly:

- Nicholas and Markey (2014:4) note that "both Western and Indigenous knowledge is constantly verified through repetition and verification, inference and prediction, empirical observations and recognition of pattern events, and always subject to improvement";
- Bohensky and Maru (2011:6) enumerate parallel though meaningfully different characterizations of TK and Western science: "(1) science is diachronic, i.e., tends to collect short-term data over large areas (science), whereas TK is synchronic, i.e., tends to collect information over long time periods; (2) foci on averages (science) and extremes (TK); (3) quantitative (science) and qualitative (TK) information; (4) improved tests of mechanisms (science) and improved hypotheses (TK); and (5) objectivity (science) and subjectivity (TK)";
- Whiteley (2002) writes of the ways that Hopi people match claims about history against their own canon of knowledge and historical narratives, using methods and criteria of testability and falsifiability in much the same way as Western

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science. While he argues for a somewhat conservative, less epistemologically-flexible integration of TK into archaeological research, he approaches the subject with his own interesting premise regarding synergies: "Philosophically speaking, differing accounts of the past must intersect in certain important respects, or they are not accounts of the past, but of something else. Historical consciousness in some form I take to be a human universal, even though its schemes and contexts of expression vary significantly" (p. 406);

- Cruikshank (1994) points out that valuations of what constitutes evidence often differ within oral history versus academic research, and thus are often difficult to compare or integrate. In particular, oral narratives may take a more subjective approach to recording an incident. However, "once considered a limitation," Cruikshank notes, "this is now being recognized as one of oral history's primary strengths: facts enmeshed in the stories of a lifetime provide a number of insights about how an understanding of the past is constructed, processed, and integrated into one's life" (p. 405). This mirrors postprocessual critiques of the limits of archaeological science's claims and aspirations to epistemological objectivity.

- Damm (2005) argues that archaeology partakes in a kind of essentialism, casting Indigenous groups as "others" as part of a larger play for power (epistemological, political, etc.). This introduces a difficult dynamic—on the one hand, it would seem that dismantling this sort of essentialism would in many ways be beneficial for all parties, but on the other hand, much of the discourse around TK focuses on the idea of difference as productive—that a holistic approach to environments not only creates a worldview foundationally different from many Western modes of thought, but that that this aspect of TK makes it uniquely able to tackle certain social and environmental issues in the contemporary world.

- Gregory Cajete (2000:3) advocates for the idea of a *Native science* as: "the collective heritage of human experience with the natural world; in its most essential form, it is a map of natural reality drawn from the experience of thousands of human generations. It has given rise to the diversity of human technologies...in profound ways Native science can be said to be "inclusive" of modern science, although most Western scientists would go to great lengths to deny such inclusivity."

TK and archaeological science: discontinuity

There are other researchers who believe the whole enterprise of incorporating TK into archaeology—particularly to a degree to which the interpretive autonomy or epistemology of archaeology is questioned—threatens ideals of scientific and historical rigour (at worst out of an aim toward political correctness) and is therefore best avoided. Views of three of the most outspoken critics are briefly summarized here:

- Ronald Mason (2000:264) writes that, "oral traditions are more often than not road blocks than bridges to archaeologists aspiring to know 'what happened in history,'" due to the "fundamentally disparate natures of the two epistemologies." While Mason speaks of the wisdom contained in, and cultural importance of, oral traditions, he does not appear to value oral traditions equally to archaeology (as a "historical science" [p. 239]) as a way of knowing the past. Mason likens belief in the validity of oral traditions to faith: "Like religion, you believe oral tradition or you don't. And although, as with religion, there may be pieces of history embedded in particular oral traditions, they must be teased out by adherence to the rules of rational inquiry" (p. 263). Mason criticizes those archaeologists who he sees as politically motivated to grant oral traditions more factual authority than is warranted, risking a "remystification" of the past (p. 262). Essentially, he argues, oral traditions are wholly incommensurate with science: "foreign to and independent of the body of axioms, postulates, corollaries, reductive reasoning, canons of evidence, and commitment to testing that unite physics, chemistry, geology, biology, archaeology, etc. into a common, coherent, consistent way of comprehending the world" (263).

- Robert McGhee (2008) cautions against what he refers to as "Aboriginal exceptionalism" (p. 580), wherein Indigenous history is treated differently (by archaeology) than is non-Indigenous history. Arguing for the autonomy of archaeological interpretation, he writes: "The past is a universe that is open to all, and if archaeologists choose not to base their interpretations on the evidence of oral tradition, religious faith, or the imaginative use of other forms of information, they should have no part in denying others the right to do so. I argue that such alternate methods must, however, be of only peripheral interest to archaeology lest their uncritical acceptance compromise the attributes of the discipline that

make it a particularly effective means of talking about the past" (p. 580). McGhee assents to the notion that there are multiple ways of talking about the past, but argues against Indigenous traditions and "non-Western values and perspectives" (p. 581) affecting the scientific rationalism of the archaeological approach, or of "sharing theoretical authority [with ...] Indigenous oral tradition and religious discourse" (p. 591).

- Daryl Stump (2013) sees little benefit in the creation of any sort of hybridized archaeology, whereby archaeological interpretation attempts to reconcile itself with "non-scientific" Indigenous approaches to interpretation. Similarly to Ronald Mason, Stump does not find compelling arguments for the social and ethical grounds for incorporating traditional worldviews into archaeology, and argues that while archaeology may be able to glean useful information from TK, researchers should be careful to only extract data, disentangling it from Indigenous epistemologies. His primary concern appears to be the potential *conflation* of archaeology/historiography and indigenous knowledge—that researchers (or those that read their work) will not be able to establish a clear epistemological framework nor differentiate between "fact" and "fiction" if archaeology and TK are allowed to hybridize; he worries that in this situation historical truth is "negotiated rather than empirically tested" (p. 284). Stump also asks whether archaeology "can truly claim to 'see' indigenous knowledge" (p. 269), essentially questioning whether archaeologists are effectively able to extrapolate past behaviours from contemporary ethnographic information (i.e., which Indigenous practices and knowledge are rooted in the deep past and which are novel) (p. 280).

Much of archaeology's epistemological framework—particularly that which developed under the umbrella of processualism—has universalist ambitions, endeavouring to generate knowledge of the past by producing generalized models of human behaviour. As one result, attempts to combine Indigenous knowledge systems with Western prehistory research tends to involve mining traditional narratives for useful factoids, *"i.e. details of site locations, the function of tools and structures, local knowledge of resources in the area etc. Such use of oral information is, at least initially, not so much directed at narrative interpretations, but rather at the reconstruction of apparently functional and empirical elements"* (Damm 2005:78). This describes the approach taken

by the majority of the twentieth-century examples of ethnographically-informed archaeological research cited in the previous section.

Scientific models of knowledge production tend to rely upon disciplinary divisions that segregate the natural world and products of human experience into separable parts (data, taxonomies, natural and behavioural laws). This epistemological framework aspires to be equally applicable (equally "true") in any context. Though no less empirical, TK systems tend to develop in a more regionally-limited context, with less ambition toward universality and more towards holistic, integrated, applicable knowledge; TK claims expert knowledge rooted in human experience of the complex relationships (physical, social, spiritual) that exist within distinct ecosystems (Bruchac 2014:3819). Lesley Green (2008) argues that the idea that nature can or should be studied as apart from culture has been a tenet of Western science, often not reflected in "traditional cultures," and that this represents a very real and perhaps irreconcilable difference between knowledge systems. As Martindale and Nicholas (2014) contend, this difference of approaches creates a tension between archaeology and Indigenous treatments of the past. From the point of view of the skeptical scientific archaeologist: "if history is explicable in universalist terms, then internalist understanding is relevant only as either examples of the general principles or as a culturalist veneer over the truth of history" (p. 440).

TK and archaeological science: conflicting goals?

Ronald Mason writes, "Anyon (2000) and his coauthors are quite right […] when they complain of archaeology that it 'has little meaning to Indians as a way to enhance oral tradition itself within a traditional cultural context.' How could it? The two [ways of knowing the past] pursue separate purposes" (2006:6). These "separate purposes" are a divide articulated by critics of archaeology/TK integration (like Mason), but also by Indigenous scholars. Indigenous traditional knowledge systems provide rich foundations for the anchoring of social identity, and for Indigenous communities to describe, understand, and live in continuity with their pasts (Agrawal 1995; Aikenhead and Ogawa 2007; Bohensky and Maru 2011). They do not exist, primarily, in order to demonstrate (or prove) aspects of Indigenous history to outsiders, nor are they knowledge traditions wanting for external validation through approaches such as archaeology.

Many Indigenous peoples resent the suggestion that their historical traditions are perceived as in need of substantiation by science before they can serve as legitimate sources of personal and cultural identity (Echo-Hawk 2000:287) not to mention broader socio-political currency. Archaeology has, nevertheless, been routinely employed to substantiate oral narratives, ground-truthing and/or providing additional detail to historical traditional knowledge. This can be done in productive and respectful ways (e.g., Martindale and Marsden 2003), though some, such as Damm (2005:78), argue against this approach in any form: "oral traditions are historical narratives in their own right and do not need legitimisation from other forms of knowledge. To me this only prolongs a colonising attitude towards oral traditions, suggesting that they need verification from western science to be important."

In Carol Brandt's (2007) research and interviews, she struggles to effectively delineate what actually constitutes Indigenous knowledge versus scientific knowledge, ultimately challenging this division. She finds that the perception of Indigenous people as straining between a dichotomy (as also articulated by Aikenhead and Ogawa [2007]) to be misrepresentative. Instead, she appeals to the sociological concept of the 'third space', or a location where hybridity is fostered. Often, Brandt finds, reconciling these different views is difficult if not impossible. However, people clearly manage to function while holding onto aspects of each (perhaps the positive flipside to cognitive dissonance?), in reality embodying a complicated admixture of worldviews.

When researchers—including myself, in this thesis—ask whether TK should, or how best it could, be incorporated into archaeological research, it must be recognized that this question largely originates from outside Indigenous communities[8]. It is a question stemming from the Western historiographic enterprise, which seeks to describe and document human history in its entirety. In this sense there appears to be some common ground among the "proponents" and "critics" of TK's incorporation into archaeological practice: that TK systems approach the notion of history somewhat differently than does archaeology, with different values and aims. This leads to the aforementioned epistemological considerations, but also to sociopolitical concerns.

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[8] The inverse question—how archaeological methods and findings can best be incorporated into the TK of Indigenous communities—is equally compelling, but beyond the scope of this thesis.

Social Power and Intellectual Property Issues

As neither archaeology nor TK exist without their practitioners, the relationship between archaeology and TK is, in practice, a relationship between individuals, communities, and nations. As archaeologists become increasingly aware of this reality, and grapple with the impact of their research on descendant communities (for a recent review, see Gnecco and Lippert 2015), the potential social implications of making TK an active part of archaeological research demand consideration. Can TK be ethically integrated with archaeology when archaeologists and First Nations communities do not exist in a state of power parity? Can researchers approach TK-integration as a technical challenge without simultaneously considering the socio-political ramifications of knowledge sharing, and the legacy of scientific colonialism (Nicholas and Hollowell 2007)?

While much is made of the potential contributions of TK to archaeology, less apparent or discussed is what archaeology might give back. This suggests, in practical and epistemological terms, an unequal relationship. Archaeology may in fact be useful to Indigenous groups as a way of enriching their histories, or articulating and substantiating them in ways that lend them more weight in the public arena (though often framed, problematically, as "proving" Indigenous "legends" [e.g., Perry 2017]). On the other hand, as Bruchac (2014:3818) argues, oral traditions have partly functioned, in their resiliency and perseverance during periods of colonialization (and post-colonialization), as forms of cultural resistance. As a result, synthesis with archaeological science may represent a threat to this resistive power, and to cultural autonomy.

Nevertheless, archaeologists have frequently been expected to act as TK-verifiers, in public forums and legal contexts, however unwelcome the role. Oral traditions are increasingly placed at the centre of legal battles, particularly regarding land claims, with the validity of oral knowledge challenged (often tested against archaeology-derived knowledge) by courts of law (Cruikshank 1992; Miller 2011). In Canada, recent land claim court decisions have hinged on historical and archaeological interpretations and valuations of oral traditions (Newman 2005; Valverde 2012). However, recent landmark decisions (particularly *Delgamuuk'w v. B.C.* [1997] and *Tsilhqot'in Nation v. B.C.* [2014]) each validated First Nations oral histories as reliable evidence in its own right, weighted comparably to archaeological data.

TK is predominantly an embodied knowledge, held by knowledge keepers—in many cases people specifically trained throughout their life to bear the responsibility of carrying and translating their community's knowledge. They are specialists, not unlike academics and other Western knowledge keepers (Bruchac 2014:3815). Their role also includes a form of periodic recounting and verification of oral knowledge (Bruchac 2014:3817), as well as safeguarding this knowledge. As mentioned earlier, a major issue in archaeology's use of TK is appropriate access to information. There is significant variation among and between Indigenous communities as to what aspects of traditional knowledge it is appropriate for researchers to have access to (Anyon et al. 1996; Atalay 2014; Damm 2005). Some TK, as the intellectual property of particular persons or families or communities, is reserved to be shared selectively, in certain contexts, among certain people, and in certain languages (Turner 2014). Many of the ways that archaeologists interact with oral traditions—particularly in the form of recording ethnographies—potentially creates issues in the realm of IP ownership.

Indigenous knowledge remains largely unprotected from appropriation and misuse, exploited by those with interests in pharmaceutical research, spiritual growth, environmental causes, and commercial product development, among others (Simons et al. 2016). This appropriation is typically non-consensual, often confers no benefit to Indigenous people, and has the potential to cause economic, cultural, or spiritual harm.

More attention has been given in recent times to codifying approaches to biological material (including in grave material repatriation via NAGPRA) than in intellectual property issues relating to the gathering of TK by archaeologists and other researchers. While providing free unfettered access to TK is not appealing from a cultural or economic standpoint for most Indigenous peoples, the application of intellectual property rights unavoidably commercializes knowledge, an act that does not always benefit traditional knowledge holders nor conform to cultural knowledge sharing protocols or conceptualizations of knowledge "ownership" (Maina 2011; Srinivas 2012). As such, Indigenous communities are often tasked with fitting their cultural values regarding intellectual property within existing laws of settler nations, establishing their own approaches to protecting their knowledge. As an example, the nascent model of "traditional knowledge Commons" (borrowing from the recent growth of general culture ideas and models of knowledge commons) may ultimately provide a more culturally-resonant way of approaching the issue of IP (see Lyons et al. 2016 for a compelling

application of this concept), allowing Indigenous communities to dictate, with nuance, under what terms their knowledge is shared and used.

Summary

Archaeologists attempt to infer human behaviour through the examination of material culture, using an increasing variety of approaches, theories and technologies, often working to construct histories of past peoples whose direct connection to our contemporary world has essentially vanished. But archaeologists who study the pasts of living cultures are in a different, and privileged position. They have the benefit of working with the histories of peoples who can, without the aid of archaeology, trace detailed continuity between themselves and their ancestors, between their contemporary and ancestral practices. This is particularly true of Indigenous peoples, whose identities are often rooted in a profound connection both to place and to familial and community lineages. This self-knowledge—of a cultural past with saliency in the present—is often referred to as "traditional knowledge." Archaeologists have historically tended to access Indigenous traditional knowledge second-hand, through existing ethnographic sources. However, as archaeologists increasingly work with (and sometimes for) Indigenous communities, they have the opportunity to access TK directly. This opportunity is attended by social and epistemological challenges.

In settler nations, archaeologists often serve commercial and governmental interests that are at odds with those of Indigenous communities. Archaeologists may be called upon to validate Indigenous traditional knowledge (including in legal situations), to delineate (and so potentially protect) sites of Indigenous cultural importance, to speak authoritatively to the public about Indigenous history, and to access and employ TK in ways that risk making Indigenous communities vulnerable to intellectual property violations. Each of these situations place archaeologists in a position of responsibility, and potentially participant in persisting colonial power imbalances. But contemporary archaeologists also increasingly work with Indigenous communities to develop approaches and interpretations that allow archaeological- and TK-based renderings of the past to co-inform and comingle.

Critics of this comingling express concern about the epistemological autonomy of archaeology. They argue that archaeology, having developed with rationalistic rigour in

the tradition of Western thought, must adhere to its own methods, based in the empirical analysis of material culture, and not allow these to be conflated with non-material evidence such as oral traditions. For some, this comes down to a tension between science (archaeology) and non-science (traditional knowledge); to allow TK to inform archaeological interpretations is to admit anecdotal and un-substantiated evidence. However, as others have pointed out, archaeology and TK are each empirically-founded, and each employ culturally-specific, refined techniques for interpreting and relaying historical information. TK is, in its way, tested and verified, and its transmission carefully curated by specialized cultural practitioners. Despite these similarities, there are also meaningful differences between the ways in which TK and archaeology interpret and render historical information, which present epistemological challenges, including: the context-dependent and holistic ways in which TK is culturally encoded; archaeology's tradition (and perhaps bias) of preferencing materiality and the written word; and the ambitions towards universality and positivism of some archaeologies.

In British Columbia, archaeologists have been working with TK to enrich their research, from examining major phenomena from thousands of years ago, such as major population shifts and geological events, to enriching understandings of ideational and subsistence practices with a detail not derivable from traditional material culture analysis alone. They have also increasingly critically examined the role archaeology plays in this province— how professional practices and legislation affect the degree to which First Nations are able to define their own history, protect their own cultural heritage, and continue cultural practices rooted in TK.

Chapter 3.

Methods

This chapter outlines the rationale for my research methods, beginning with an explanation of the reasoning—both practical and theoretical—behind my choice to conduct this research primarily via in-depth interviews. Following this, I detail how this interview-based research was executed in terms of: 1) my respondent selection process (including demographic considerations and applied respondent recruitment); 2) the development of my interview framework; 3) the approach I took to conducting interviews; 4) my approach to data interpretation; and 5) ethical considerations.

Approach: The In-depth, Semi-structured Interview

Having decided that the goal of my research would be to "speak" directly to archaeologists in British Columbia, I considered a number of approaches, including a variety of survey and interview formats. In investigating these options, two major factors became apparent, ultimately leading to my decision to conduct in-depth, semi-structured interviews:

1) **The difficulty of defining and obtaining a representative sample**. There is very little information regarding such seemingly simple questions as *how many BC archaeologists are there,* and *who are they*? The British Columbia Association of Professional Archaeologists' (BCAPA) membership lists (2017) contains 231 names. But membership in the association is voluntary and has no impact on an archaeologist's

ability—in any role—to work in BC[9]. As such, the membership list is an incomplete representation of the province's archaeologists, in nature and number. Additionally, much CRM work is seasonal and lower-level positions are non-permanent, so many newer practitioners work as archaeologists only intermittently. Those with more developed careers, and in particular those who work directly for First Nations, seem often to shift roles, at times working in CRM, but other times taking on related positions in the realms of natural resource management (e.g., Joanne Hammond, May 10, 2016), environmental studies (e.g., Darcy Mathews, February 1, 2016), heritage advising (e.g., Morgan Ritchie, April 21, 2016), and band administration (e.g., Brenda Gould, Marcy 27, 2016), among others. The question, *who are the archaeologists of BC*?, is thus difficult to answer, in terms of quantity or demographic detail.

2) **The multi-faceted nature of archaeology-TK interaction.** My intuition, based on my literature review and personal experience, led me to believe that a topic as socially, methodologically, and theoretically complicated as *archaeology's interaction with TK* would be best served by a format that allowed respondents ample space and flexibility to explore their experiences and ideas. Epistemological considerations of the kind I was interested in exploring are by their nature discursive. I believe the interviews bore this belief out: respondents, each in their own way, required the conversational flexibility to meander, to reconsider, to have recourse to anecdotes and allusions, and to explore the semantic nuance of language (Scott and Garner 2012:282). The in-depth, semi-structured interview format allowed respondents and me to collectively approach the rather abstract topic of epistemology in a way that suited the different backgrounds and communication styles of the respondents. As a format it offers three advantages: 1) as an effective means for gaining detailed understanding from individuals on a focused topic; 2) as an active-listening approach, utilizing a pre-established interview framework but allowing both the interviewer and participant to follow conversational threads that diverge from the core question set; and 3) as a way of encouraging respondents to share both their experiences *and* their perspectives (Bernard 2006:212; Hesse-Biber and Leavy 2011:98; Scott and Garner 2012:281).

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[9] Of the 22 respondents interviewed for this study, all of whom are engaged with BC archaeology on an essentially full-time basis, only 8 (36%) were listed as current members of the BCAPA at the time of the interviews.

A demographically representative, province-wide survey might have produced interesting and potentially statistically meaningful results, answering questions my study cannot (such as: what proportion of British Columbian archaeologists have no interest in engaging with TK?). However, the difficulty of obtaining a demographically representative sample of British Columbian archaeologists and the perceived value of an in-depth but flexible approach led me to elect to use an in-depth, semi-structured interview format. As a result, while I attempted to speak to a wide variety (as defined below) of BC archaeologists, this research is not an attempt to paint a representative portrait of BC archaeology. It is instead an ambition to capture, from a sample, a broad range of experiences, ideas, and creative approaches to how we, as archaeologists operating in this province, might best approach working with TK and TK-holders.

Respondent Selection Process

My goal was to speak to practicing British Columbian archaeologists who represent a *variety* of backgrounds and experiences. For the purpose of this study, a "practicing British Columbian archaeologist" was defined as someone who has worked in some archaeological capacity in the province for at least five of the last ten years. This definition included those whose practice is not primarily based in British Columbia, but who have done significant work in the province, and to exclude those who not had significant recent experience.

Demographic considerations

Ultimately, the demographic categories I settled upon represent the aspects of *variety* that I believed to be most compelling in the context of this research—the biographical details and experiences that, based on background research and my own experience, I deemed most likely to affect an archaeologist's willingness or ability[10] to work with TK in an archaeological context.

I questioned each respondent about six demographic categories:

1. Age

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[10] Also, perhaps, their tendency to incorporate TK without being fully conscious/reflexive of their practice.

2. Gender
3. Ancestry
4. Education (Institution; Geographic location; Date; Sub-disciplinary specialization; Archaeology vs. anthropology department)
5. Professional Experience (Provincial region[s] of work; Years of experience; Employment type [CRM, Academia, Band Resource Management, Parks, Government])
6. First Nations Relationships (Collaborative project involvement; Experience with First Nations representatives or bands [direct or indirect])

Age was broken down into decade-sized categories (i.e., "40–49"). In the context of BC archaeology, age could potentially correlate to a number of important factors, such as: the era of initial training; the time when one first entered the workforce; the degree to which one could speak directly to shifts in the nature of the discipline in the province; the depth of experience of the growth and change of First Nations governance, BC Archaeology Branch workings, and the relationship between academic and consulting archaeology. I attempted to speak to practicing archaeologists from all age groups that could be reasonably expected to be professionally active (20–69).

Gender was approached with broad granularity: as a binary—male/female. Its inclusion stems from two ideas. First, and most broadly, it is always important to include the voices of both women and men, to balance gendered perspectives and experiences (Balme and Bulbeck 2008; Conkey 2005; Engelstad 2007; Wylie 2008). Second, gender may affect an archaeologist's career opportunities and, potentially, working relationship to First Nations or, in this case, ability to access particular (possibly gender-specific) TK[11].

Ancestry, as a category, was less prescriptive in terms of informing my respondent recruitment than other categories. My expectation was that the majority of respondents would identify as being at least partially of European descent. My anecdotal experience suggests this is likely roughly reflective of BC archaeologists as a group, and

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[11] This latter notion was rarely substantiated by interview respondents; though they spoke of gender-specific Indigenous knowledge, no participant described an awareness that their own gender affected their access to TK.

I saw no particularly compelling reason to attempt to seek out archaeologists with ancestries from all corners of the world. It was, however, important, considering the nature of this research, to speak to archaeologists who had First Nations backgrounds (whether or not they identified as "Indigenous archaeologists"). How those with Indigenous ancestry, and possibly membership in First Nations communities, grappled with embodying both Indigenous and archaeological backgrounds and worldviews, was clearly of interest to my investigation.

The question of *educational background* was an opportunity to sort respondents into basic categories of education-level and education type. Nominally it allowed for some insight into the degree to which quantity, location, era, and highest-level-of education might affect a respondent's responses. It also provided an opportunity to begin probing how different education specializations might affect one's ability to engage with other cultures' knowledge systems.

I asked respondents to detail both the depth and breadth of their *professional experience*: in what capacities had they been active in archaeology, and for how long? My goal here was to gather biographical information that might allow me to question how approaches to TK have shifted over time and in response to personal experience and changing circumstances, as well as how different roles (e.g., field supervisor, technician, educator, publicly-funded researcher) affected archaeologists' methods for working with TK.

Finally, inquiring about *First Nations Relationships* was intended to fill out the portrait of the range of ways a respondent worked with First Nations peoples. The presupposition was that working in different archaeological professions leads to formal, professionally mandated differences in approach. For example, consulting archaeologists in British Columbia often have private industry as primary clients, but consider First Nations communities both project participants and long-term, primary stakeholders; academics often consider First Nations as both subjects and collaborators in their work; and increasingly archaeologists work directly in the employ of First Nations, directed by an Indigenous research agenda. In all capacities, archaeologists count First Nations as colleagues. Ranging from conceptions of archaeology as a mode of colonial expansion (Hutchings and La Salle 2014, 2015) to archaeology as a potentially potent tool for First Nations empowerment (Lyons 2014) and much in-between (Klassen 2013;

Martindale 2009; Nicholas 2006), I expected the varying formal relationships that archaeologists in British Columbia have with First Nations to affect their approaches to working with TK.

Respondent selection and selection bias

Non-probability sampling was employed to build my respondent pool. This choice stemmed from my desire to speak to *informed* informants—those who would have something significant to share on the subject. Specifically, I used a combination of quota sampling, purposive sampling, and convenience sampling (Bernard 2006:186-192; Hesse-Biber and Leavy 2011:46). Q*uota sampling*: I dictated which demographic categories were likely to be important to affect interview responses and how they should be ideally weighted in my respondent pool. *Purposive sampling:* my respondent pool is informed by my intent to include only those with first-hand experience on the topic of using TK in archaeological practice in British Columbia. C*onvenience sampling*: potential respondents were approached based both on my awareness of them as holders of specialized knowledge, and their availability and willingness to converse on the topic Ultimately, my expectation and intent in taking this hybrid approach was to build a pool of respondents who shared an interest in archaeology's relationship with TK, but who did not necessarily share experiences, methodological approaches, or values on the subject.

I identified potential respondents in three main ways: my existing knowledge of British Columbian archaeologists; the recommendations of colleagues in academia and CRM; and knowledge and contacts gained from promotional outreach (poster presentations, pamphlets, etc.) and conference presentations[12]. Respondents were invited in "batches" of approximately five. Once each batch of interviews was conducted, and demographic data collected, subsequent respondent recruitment became more targeted as I sought to increase demographic variety among the respondent pool.

The respondent pool was ultimately biased in two significant ways. First, I delineated my demographic categories based on the demographic characteristics that I

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[12] 2016 Society of Applied Anthropology Conference; 2015 Intellectual Property Issues in Cultural Heritage webinar; 2015 Simon Fraser University Archaeology Symposium; 2015 BC Archaeology Forum

deemed most significant in regards to my topic. This was essentially a compromise—a best attempt to both reflect population parameters presumed influential to my study and to produce a respondent pool that was as varied as British Columbian archaeology is thought to be (an attempt to approximate probability sampling [Bernard 2006:188]). Second, those that elected to be interviewed by me were individuals willing to converse at length about the subject of archaeology and TK—a "self-selecting" group both interested in the subject and confident in their capacity to articulate their thoughts and experiences in an academic venue.

This latter bias is the more significant, in my view. British Columbian archaeologists who are skeptical about TK's value to archaeology or simply do not use it in their practice were not intentionally excluded from my respondent pool, but ultimately were not included (as evidenced by the interview responses I received). This was primarily a result of two factors: 1) I am not aware, by name, of "TK-skeptics" in this province—there are, to my knowledge, no publicly outspoken British Columbian critics of TK-use in archaeology, nor were any identified by the colleagues I spoke to as part of my process of recruitment; 2) it was a significant challenge to secure and schedule the interviews—a big request to ask respondents (even those with an enthusiasm for the subject) to give me hours of their time and to freely share their views and experience for potential publication[13]. My expectation is that archaeologists with no experience with (or a skepticism of) TK would be unlikely to agree to an interview, either out of lack of interest or an unwillingness to speak disparagingly of the archaeological value of TK[14].

Interview Framework Development

The interview framework (see Appendix A) comprised 28 questions, grouped into six categories—six lines of inquiry established to approach the broader topic from

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[13] There were 14 potential respondents who either declined to interview or did not respond to my invitation (see Table 4.1).

[14] I can only speak anecdotally (from direct field experience, as well as conversations with colleagues), but my perception is that there are indeed many archaeologists in British Columbia who, for a variety of reasons, rarely use TK in their practices. I also have the sense that while speaking of a skepticism of TK's utility to archaeology may take place informally among colleagues, those who hold these views more strongly would be reticent to speak about them on-record. As indicated by respondents' answers to Question 5a (Chapter 4), there may not be strong professional expectation to work with TK, but this does not preclude there being peer and social expectation that archaeologists not be explicitly dismissive of TK.

specific angles. My intention was to structure interviews in a way that allowed respondents to "work their way" into the subject matter, comfortably and emergently, moving from the personal to the more general and eventually the theoretical.

The framework was structured as follows:

1) The aforementioned set of demographic questions;

2) An exploration of *traditional knowledge* as a phrase and abstraction, allowing both myself and the respondent to respectively define the term before proceeding to use it in the remainder of the interview;

3) Biographical questions intended to plumb the range of respondent's experiences of working with TK in an archaeological context;

4) Questions that ask the respondent to speak more broadly and generally—at a provincial level, beyond their own practice—about British Columbian archaeology's engagement with TK;

5) Overtly socio-political questions, which asks about how the interrelationships of archaeology, First Nations, government, and the public affect how archaeology approaches TK holders and what effect that engagement has;

6) Epistemological considerations—the largest section, which largely returns to themes explored more anecdotally or methodologically earlier in the interview, but here attempts to lay bare the theoretical underpinnings and implications of the interplay between different cultural knowledge systems; and

7) Closing comments, where respondents are invited to share any additional thoughts not addressed by the previous interview questions.

Interview Approach—Structure and Practice

Interviews were conducted in-person, whenever possible. Ultimately, 16 were conducted in person, at whatever location best suited the respondent—cafes, hotel lobbies, pubs, campus offices, respondent's homes and my own. In the remaining six cases, interviews were conducted over the phone. Interview lengths ranged from 60 to 120 minutes. All but one (21/22) respondent consented to having their interview audio-recorded. The interviews were conducted between November, 2015 and May, 2016.

One goal of the semi-structured, in-depth interview style is to create conversation that is more collaborative than interrogative (Hesse-Biber and Leavy 2011:94; Holstein and Gubrium 1995:12-13). However, by developing an interview framework (that I offered to share with respondents in advance), I was also able to guide the interview, ensuring that all issues important to my research were at least proposed as areas of potential conversation. In other words, while I intended from the outset to direct the interview, the content of conversations ultimately represented a compromise of interests between myself and my respondents (as anticipated by Bernard 2006:212, 217). I allowed myself to ask improvised follow-up questions, to reword questions to better fit respondents' backgrounds, and to skip questions that were either not applicable to the respondent (based on their experience) or had already been addressed (anticipated) by the respondent in early sections of the interview.

I opened each interview by explaining the goals of my research and the specific intended structure of the interview. I reiterated both that they were free to elect not to answer any of my questions, and that some questions were intentionally provocative (a "devil's advocate" stance [Scott and Garner 2012:287]), reflecting concerns recurrent in the literature but not necessarily my own, and so they should also feel free to reject the presumptive underpinnings of any question.

I made notes during the course of each interview. Audio recordings were made when respondents consented. Respondents were also given the opportunity to review the interview transcripts and a draft of this thesis, and invited to clarify, correct, or revoke any quotation or paraphrasing derived from their interview.

I worked to largely keep my opinions out of these interviews. In cases where a respondent voiced an opinion on a subject, I sometimes then shared my own ideas and experiences if doing so provided greater opportunity to follow that conversational vein. Holstein and Gubrium (1995:12-13) refer to this as "mutual disclosure"—a defining characteristic of *creative interviewing*. The intent is to establish an interview dynamic wherein occasional sharing on the part of the interviewer creates an atmosphere that encourages respondents to reciprocate, "more deeply" sharing their own thoughts.

Analytical Interpretative Techniques

Grounded theory served as both a starting point for my research design development and the foundation of my data analysis. It is an interpretive framework suited for the sort of inductive, qualitative-data-heavy research of contemporary social phenomena that characterizes my study. Grounded theory is primarily inductive—while often starting with a research question (as I had), and gathering data with particular foci, it preferences data collection[15] and analysis that is responsive to emergent ideas and themes, possibly unanticipated by the initial research design (Hesse-Biber and Leavy 2011:35). In a sense, I see employing grounded theory as an act of appropriate humility, in keeping with the premise of my research. I approached this research with a set of concerns derived from the academic literature, but with the expectation that this background knowledge was incomplete, and that the experiences and reflections of working archaeologists would contribute to a fuller understanding of the topic. Adopting a research approach that explicitly provides space for, and takes direction from, themes and issues that emerged unexpectedly from the interviews thus seemed fitting.

I used *NVivo*, the qualitative data analysis software program, to transcribe the interviews and later to parse the transcriptions, thematically tagging the interview content. I employed a two-layered tagging scheme: the first set of tags was created in advance, and corresponded directly to the individual interview questions; the second set was populated reactively, as issues and themes arose in the interviews that fell markedly outside of those in the first set. My Results chapter is primarily informed and organized by the first set of tags, and my Discussion chapter by the second set.

Ultimately, I sought to analyze the data at three levels: demographic, thematic, and idiosyncratic:

1) **Demographic analysis** seeks compelling correlations between demographic data and respondent experiences, ideas, and attitudes. My respondent pool was not sufficiently large enough to produce statistically significant results. However, identifying difference within a given demographic category both allowed me to

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[15] Scott and Garner (2006:284) argue that in interview settings, data are "produced," not "collected"—a view I agree with. In my research process, I defined the interview framework, directed the interview, and transcribed and coded the results, selecting which data to preserve and present.

explore response patterns (e.g., *Do archaeologists working with coastal First Nations tend to describe similar community knowledge-sharing protocols to those working in the province's interior? Do archaeologists with significant experience have different epistemological concerns than those just entering the field?*) and to suggest future research avenues;

2) **Thematic analysis** takes place through the creation of emergent labeling (the "two-layered" tagging scheme described above). It provides an opportunity for me to identify and investigate questions such as: *Why are certain themes recurrent in the interviews, but not at the forefront of the literature that informed the interview framework? What interview questions, aimed at exploring pre-identified themes (a), regularly elicited a response touching on emergent theme (b), and why?* Both demographic and thematic analyses are attempts at analytic generalization (as defined by Hesse-Biber and Leavy 2011:53-54), though tend to produce generalizations more confidently about the respondent pool, while more tentatively about British Columbian archaeology as a whole (due to the aforementioned choices regarding sampling and interview structure that favoured depth over breadth); and

3) **Idiosyncratic analysis** is aimed at preserving individual ideas and issues not sufficiently recurrent to be considered thematic, but of special interest, warranting representation. These interview moments tended to either be anecdotal—relating to an unusual experience or circumstance—or conceptual—offering a unique insight into an abstract, theoretical issue related to this research topic. More broadly, selectively relating anecdotal interview passages is intended to preserve one of the values of in-depth interviews: its ability to produce narratives, particularly ones that take a line of inquiry in an unanticipated direction (Holstein and Gubrium 1995:25-29).

Ethics & Confidentiality

I sought and received approval through Simon Fraser University's (SFU) Office of Research Ethics before commencing interviews. A consent form was given to participants electronically and, in the case of in-person interviews, in paper copy. The

bulk of the consent form followed standard SFU guidelines, and does not warrant discussion.

Confidentiality guarantees were, however, the one area that required creative consideration. The range of employment arrangements that BC archaeologists find themselves in mean that they are differently vulnerable/able to freely share their stories, and in many cases may themselves be bound by others' (i.e., industry, corporate, First Nations) confidentiality contractual obligations.

Respondents were offered a choice of three confidentiality levels (with the flexibility for additional modifications) that I anticipated would best serve the range of archaeologists I expected to speak to. They were presented as follows:

1. Full Confidentiality: I will record basic demographic information (e.g., region of work, age, education), but your name will not be associated—even in my records—with your interview. I will use your interview answers to produce aggregated data, but no specific idea or anecdote you provide will be made public.

2. Partial Confidentiality: I will provide the same protections of confidentiality as option #1 (full confidentiality), except that by choosing this option you consent to allow me to publish specific ideas or anecdotes you provide. If I do so, I will strip them of all names (persons and places), as well as any other detail that could allow them to be associated to you. Although these ideas or anecdotes will be rendered confidential, I will be explicit that they are not my own.

3. No Confidentiality: By agreeing to this option, you consent to allow me to use the material you provide in the interview both to create aggregate data and to publish specific ideas and anecdotes from your interview, attributing them to you by name.

No respondents requested full confidentiality, and only three requested partial confidentiality (two of which rescinded the request after viewing the defense draft of this thesis). However, seven respondents asked to be provided with either the full interview transcripts or the selection of quotations I elected to use for vetting—a stipulation that was accommodated through on-the-spot amending of the consent form.

Following the "information types" scheme laid out by the Canadian Tri-Council's Policy Statement on ethical research (Medical Research Council [Canada], Natural Sciences and Engineering Research 2014:59), I produced either *coded information* or *directly identifying information*, depending on the informant's preference (options 2 and

3, above, respectively). *Coded information*, the more confidential of the choices, allowed me to retain knowledge of the informant's identity as connected to their interview material, while keeping that information confidential. *Directly identifying information* was produced from informants who agreed to be named in my study, allowing me to relate details of anecdotes and quote directly from interviews. Those respondents who chose "no confidentiality," are cited by name in this paper, in relation to their contributions.

Summary

From my own experience in academia and in CRM, I knew that archaeologists in British Columbia were working with TK on a regular basis, but that much of this experience was not being recorded or explored in existing, publicly-accessible literature. This led me to decide to speak directly to working archaeologists in this province, in order to produce a critical exploration of British Columbian archaeology's current approach to accessing and incorporating TK.

Because of the socially and theoretically complicated nature of the topic, I opted to conduct in-depth, semi-structured interviews with a limited group of participants. I created an interview framework designed to explore the major themes I had identified in the literature, primarily experientially, inviting participants to describe how they worked with TK in practical terms, as well as how those experiences contributed to the development of their own ethical and theoretical frameworks. The interview framework was designed both to encourage anecdotal descriptions of archaeology-in-practice, as well as more expansive reflections on British Columbian archaeology as a whole—the social context in which it functions and interpretive frameworks that inform it.

I recruited a pool of participants who were heterogeneous in ways that I hoped would be meaningful, in the sense of representing a variety of backgrounds and experiences that might differently affect how each participant would approach working with TK. These considerations included age, gender, ancestry, education, and professional experience. While I sought to include as wide a variety of voices as possible, my respondent pool was, for a variety of reasons, biased toward those archaeologists who already had an active interest in working with TK. I ultimately conducted 22 interviews with archaeologists from all areas of the province. The resulting transcription data were analyzed and organized thematically, both following the structure

of my interview framework and responding to emergent themes, and are selectively presented in the next chapter.

Chapter 4.

Results

I invited 37 British Columbian archaeologists to participate in an interview, 22 of which ultimately did. In this chapter, the results of these interviews are presented, structured by the key interview themes: 1) demographics; 2) terminology; 3) personal experience; 4) British Columbian archaeology as a whole; 5) socio-political considerations; and 6) epistemological issues.

I provide a summarization and a synthetic analysis of the entire array of interview responses I received to each question. I also include many individually noteworthy ideas and anecdotes provided by my participants. The synthesis of each set of interview-question responses is intended to capture common sentiments while the anecdotes and direct quotations are an attempt to preserve one of the most valuable aspects of the interview approach: the unique and idiosyncratic experiences and thinking of the individual respondents. As Darcy Mathews[16] put it, "maybe I'll just tell you another anecdote. Because this is, again, how I learn." It is how I learn too, and in a way, preserving some of the orality and the storytelling that characterized these interviews feels not only more faithful to the tone of the interviews themselves, but also resonates with the subject matter—some of the power of TK owes to the individuals who pass it on, how it is encoded, enriched, and preserved in narratives, and a value placed in specifics over generalizations. Preserving much of the individual detail of the interview responses

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[16] All quotations included in this chapter are drawn from the interviews, as listed in Table 4.2, and will not be individually cited.

also contributes to the goal of my research: to examine in detail the diversity and inventiveness evidenced by British Columbian archaeologists in their practice.

Results Presentation

Throughout this chapter, when attempting to summarize and group respondent answers, I occasionally quantify response types (e.g., "12 respondents agreed that ..."), but more often use graded qualifiers (e.g., "the *majority* indicated ..." or "a *few* stated ...," etc.). I favour graded qualifiers as a recognition of the fact that most questions did not elicit responses that I felt could be quantified with a specificity that allowed for exact numerical reporting. This is largely the result of the type of interview questions I posed. Outside of the demographic survey, no interview question sought numerical responses, and few sought binary responses. This made direct comparisons or categorizations of response types challenging. So the predominant use of graded qualifiers represents a compromise: between recognizing the fluidity of the responses I received, and the value of describing observable trends in responses.

One other note on style: I occasionally write that a respondent "agreed" or "added to" another respondent's answers. This is simply a stylistic gloss—my attempt, linguistically, to knit the transcript data together. Respondents were not privy to each other's interview answers.

The interviews produced roughly 500 pages of transcript in total. Despite the formidable length of this chapter, it represents only a modest selection of the richness respondents generously shared. Below, Table 4.1 illustrates the responses my interview recruitment effort, while Table 4.2 provides a list of all interviews conducted.

Table 4.1.   Interview respondent recruitment.

Invited	**37**
Interviewed	22
No response to invitation	12
Invitation declined	2
Invitation accepted but unable to schedule interview	1

Table 4.2.   List of interviews conducted (n=22).

Respondent	Primary Assn. (at time of interview)	Interview Date
Chelsey Geralda Armstrong	Simon Fraser University (Ph.D. student)	Dec. 17, 2015
Chris Arnett	Independent	Mar. 3, 2016
Nyra Chalmer	Simon Fraser University (M.A. student)	Nov. 3, 2015
Jenny Cohen	Independent	Apr. 8, 2016
Brenda Gould	Independent	Mar. 27, 2016
Joanne Hammond	Pacific Heritage Research and Consulting	May 10, 2016
Beth Hrychuk	Landsong Heritage Consulting Ltd.	Apr. 20, 2016
Michael Klassen	Independent	Mar. 15, 2016
Dana Lepofsky	Simon Fraser University	Sept. 3, 2016
Jennifer Lewis-Botica	Kleanza Consulting Ltd.	Jan. 29, 2016
Natasha Lyons	Ursus Heritage Consulting	Dec. 21, 2015
Nola Markey	Little Shuswap Lake Indian Band	Sep. 2, 2016
Andrew Martindale	University of British Columbia	Nov. 25, 2015
Darcy Mathews	University of Victoria	Feb. 1, 2016
Peter Merchant	Independent	Apr. 1, 2016
Jesse Morin	K'omoks First Nation	Nov. 15, 2015
George Nicholas	Simon Fraser University	May 10, 2016
Brian Pegg	Kwantlen Polytechnic University	Feb. 2, 2016
Rudy Reimer/Yumks	Simon Fraser University	Apr. 7, 2016
Morgan Ritchie	Inlailawatash Limited Partnership; Tsleil-Waututh Nation; Sts'ailes Nation	Apr. 21, 2016
Nicole Smith	Independent	Apr. 8, 2016
Anonymous-1	Major CRM company	Jan. 19, 2016

Theme 1. Demographics

Table 4.3 summarizes the respondents' demographic data. As outlined in Chapter 3, the primary value of the demographic question set was to act as a guide during the respondent recruitment process, directing me to pursue candidates who added to the heterogeneity of the group in ways that I had defined as potentially meaningful. In this chapter I do also occasionally identify apparent correspondences between demographic traits and response-types to specific questions. These associations are only noted where apparent trends were compelling enough to be addressed, but are not intended to be statistically meaningful.

As discussed in the previous chapter, demographic data for British Columbian archaeologists as a whole are unknown. However, overall, I was able to recruit an interview respondent pool with considerable demographic variety, though the pool was demographically skewed in a way that familiarity with archaeology in the province suggests is roughly representative: Age distribution is Gaussian, peaking at "mid-career" (40–49) age range; Gender is roughly balanced; Ancestry is predominantly European; Nearly all respondents minimally held an M.A (essentially considered a kind of professional certification in British Columbian CRM), while most involved in academic research held a Ph.D.; most respondents had some experience working in CRM, with less involved in academic research and fewer still having been employed by government (mirroring a trend, beginning in the 1970s, toward CRM becoming dominant form of archaeology in the province [Klassen et al. 2009; La Salle and Hutchings 2012:9]); and respondents reported working in all areas of British Columbia (slightly favouring the southwest coast, where many major CRM firms' head offices are located, as well as the province's three major universities [Simon Fraser University, University of British Columbia, University of Victoria]).

Table 4.3.   **Summary of respondent demographics (n=22).**

Demographic	Response	N	Percentage
Age	20–29	1	5%
	30–39	5	23%
	40–49	9	41%
	50–59	5	23%
	60–69	2	9%
Gender	Female	12	55%
	Male	10	45%
Ancestry[17]	European	21	95%
	North American Indigenous	5	23%
	Other	2	9%
Education – degree program	Archaeology only	5	23%
	Anthropology only	6	27%
	Archaeology & anthropology	11	50%
	Other	6	27%
Education – highest attained	B.A.	22	100%
	M.A.	20	91%
	Ph.D.	12	55%

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[17] Treating "Ancestry" as a single-selection category would have resulted in all respondents falling into a single "mixed" category. Instead I treat this category as a checklist, allowing for the selection of multiple response categories for an individual of mixed ancestry, resulting in N adding to more than 22.

Education – school location	British Columbia only	11	50%
	British Columbia and other	8	36%
	Only non-British Columbian	3	14%
Professional exp. – type	Cultural Resource Management	19	86%
	First Nations band direct employment	11	50%
	Academic research, teaching	9	41%
	Freelance / self-employed	8	36%
	Government / parks	5	23%
Professional exp. – area	Southwest coast, British Columbia	17	77%
	Northwest coast, British Columbia	11	50%
	Southern-interior, British Columbia	9	41%
	Northern-interior, British Columbia	7	32%
	Outside of British Columbia	9	41%

Theme 2. Defining/Recognizing "Traditional Knowledge"

It was important at the outset of the interview to establish a shared definition of "traditional knowledge" or, barring that, for the respondent and me to come to understand what each of us meant when we used the term (or, as was the preference of one respondent, elect not to use it). I shared my thoughts regarding why "traditional knowledge" is a contested and potentially problematic term as well as why I elected to use it (see Chapter 2) but not before asking respondents to define the term (Question

2a), as well as explain, in experiential terms, the kinds of Indigenous-informant knowledge they thought of as "traditional" (Question 2b).

Question 2a. Defining TK

What does the concept of traditional knowledge mean to you? Is it a term that you use?

All respondents but one (21/22) reported that they did use the term "traditional knowledge" in their own work, though few felt entirely comfortable with it. Many noted that TK exists in every culture, but that in British Columbia it has become synonymous with First Nations knowledge. This is, as many pointed out, largely a direct product of the provisions of the British Columbia Heritage Act, which protects only those archaeological sites that pre-date 1846, the year British Columbia became a solely British colony. Nearly all protected archaeological sites in British Columbia are, as a result, of First Nations formation, so "TK" is, in this province's archaeological community, equated with Indigenous knowledge.

For some, this vagueness (does "traditional knowledge" imply Indigenous knowledge, in British Columbia?) was problematic and has led them to develop terminology to delineate Indigenous traditional knowledge from other forms of traditions-based knowledge (e.g., "Indigenous knowledge" vs. "local knowledge") [18]. For others, the broadness of the concept makes TK useful, working against essentializing or othering the notion of Indigenous knowledge. For example:

> [Traditional knowledge] is a term I use in First Nations Studies here [at Simon Fraser University]. So many of the other [terms]—TEK, all those other acronyms—I think they're value loaded. Whereas when you say TK, that can apply to not just First Nations cultures but any culture. So I think anthropologically it's a useful term. It doesn't belong to a specific group *per se*. (Rudy Reimer/Yumks)

Two attributes of TK that most respondents identified were that TK is location-specific knowledge and that it has great time depth. "Inter-generational knowledge" and "place-based knowledge" were terms that frequently recurred. This statement mirrored that of many respondents:

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[18] This is why I have taken to occasionally using the term "Indigenous traditional knowledge" to delineate the specific cultural knowledge of concern to this research.

I would say in the literature now, and least in the ethnobiology literature, or in ecological anthropology, you have *local knowledge*, which is where your ancestors have been there a long time but are not necessarily from that place. Whereas Indigenous knowledge is land-based, and it's multi-generation, inter-generational since "time immemorial" or since the creation or migration stories. (Chelsey Geralda Armstrong)

For some, this was the utility of the prefix *traditional*—it denotes knowledge derived from and in some ways about the deep past. Natasha Lyons said, "I have a lot of colleagues who would say 'why do we use the term *traditional* when it's just knowledge?' But I understand it might be knowledge about the past or knowledge about what we might call 'traditional times.'" Peter Merchant responded, "I think we should use [the term] 'knowledge.' It's just knowledge. Forget the 'traditional' and 'Indigenous.' If we're going to use a precursor word at all, maybe it should be 'Sechelt knowledge' or 'Salish knowledge.' That's postcolonial, right? Make it specific, not generalized."

In fact, all respondents agreed that it is important, when using the term TK, to keep in mind that it is only a general concept, one that describes and is defined by the knowledge systems of the multitude of autonomous Indigenous cultures. While we might be able to speak about traditional knowledge systems in certain generalizing terms, each distinct culture's traditional knowledge is individuated, and also alive and ever changing. It exists, as Nola Markey put it, because it is practiced daily. As Nyra Chalmer explained, "when you've got these folks, when it's their knowledge, they're not like, 'I'm going to go do some traditional knowledge now.' This is just their life, this is how they do their life." Traditional knowledge is applied knowledge. "I think of it as instructions for living that people pass on," said Joanne Hammond. She continued (echoing Peter Merchant's concern that the term TK pejoratively suggests cultural stasis):

One view of tradition—and I hold it—is that it's constantly in motion. So it's not in the past at all, and traditional things don't necessarily have to be backwards or static. Especially when it comes to Indigenous people in this country, we have to be really careful about that because of the connotation, the negative connotation that comes with the world "traditional" for some. I use [the term] TK too, because it's an easy way to circumscribe [the concept]. But I also work with people who prefer "Indigenous knowledge" or "aboriginal knowledge." Because the perception of "tradition" puts it in the past. And that's the main concern about that term—that it's representative of modern lives.

The final common trait that respondents frequently associated with TK is a little more difficult to articulate. Some described Indigenous TK as essentially non-Western

knowledge, differently organised and perhaps more holistic. Nola Markey stated that Western knowledge is compartmentalized, while Indigenous knowledge is more integrated, though still has specialization/specialists. Andrew Martindale described TK as a "very formal, dedicated scholarly effort, spanning generational time but also large arenas of people." George Nicholas similarly described TK as differently structured and differently-populated than familiar Western knowledge, but equal, and endowed with a similar sense of scientific curiosity and rigour in terms of knowledge production. He noted, however, that TK systems were more likely to build knowledge from sources beyond empirical observation, "from other sources including myth and memory." Darcy Mathews echoed this sentiment, when describing the interconnected knowledge important to his Ph.D. research: "plants and animals and burial cairns—all of this fits together in a way that I think transcends our more traditional archaeological partitioning our taxonomies." Chris Arnett concurred, noting that:

> People lived here for thousands of years. They knew this place intimately, the physical [landscape], in terms of food gathering activities, the things necessary for physical survival. But they also realized that this was dependent on knowledge of the spiritual realm, because that realm was the thing that connected everybody, all things. That's extremely significant."

This, in a sense, points to the potential for epistemological challenges (and benefits) when archaeology, derived from a Western knowledge system, engages with an Indigenous traditional knowledge system. As Brenda Gould said:

> TEK or TK or whatever you call it, speaks to the more ephemeral parts of archaeology that us white archaeologists can't put our finger on, have no business putting our finger on. But tremendous insight can be had from that [engagement]. I know that without TK sites go unchecked, and sites get destroyed.

Finally, many respondents pointed out that the concept of Indigenous traditional knowledge has been largely generated from outside of Indigenous cultures, by those who have needed a term or category under which to gather non-Western thought. A number of respondents further argued that the notion of TK has primarily become popularized as a result of the relationship between heritage conservation law and the resource and development industry, some going as far to say that TK, as a term, is primarily a product of—or at least popularized by—the world of business. The same was said to be as true, if not more so, of the related terms "Traditional Ecological Knowledge"

and "Traditional Land Use," which are studied (in this compartmentalized form), respondents reported, most often in the realm of resource extraction industry than.

Though Andrew Martindale stands apart as the only respondent who chose not to use the term TK during the course of the interview, the broad ambivalence surrounding the term expressed by all respondents is articulated in his concluding remark to this question:

> I've never used the word "traditional knowledge" in publication, partly because I struggle with it as a placeholder. It catches, for me, so many complicated things; I'm not yet content with the notion that the disquiet has been resolved. And I like the disquiet, I like the contention, I like the conversation, so I'm not ready to agree that we've resolved it in a form that we can then move on past it.

Evidently, traditional knowledge is a term that has broad cultural currency with British Columbian archaeologists, though, as demonstrated in this section, it is used with some reservation. Variations on these sentiments were echoed by the majority of respondents: "[The term traditional knowledge] comes with baggage, but you do have to decide on something" (Natasha Lyons); "TK is a term that [First Nations] are all familiar with, because it's been passed around for so long. So rather than using another term and having to explain it by saying 'TK' I usually just say 'TK'" (Morgan Ritchie); "I call it different things depending on the day, and who I'm talking to" (Beth Hrychuk); "It's fine. you have to pick something" (Brian Pegg).

Respondents were largely unconcerned with the formal definitions of TK and delineations between forms of TK established in my background research. While interview answers were undoubtedly biased by the phrasing of my interview questions (my own recurrent use of the term "TK"), respondents by and large did not seem to find meaningful distinction between the various ways that TK is delineated in the literature, (e.g., oral traditions, oral histories, TEK). The concept of TK was not seen to be defined by a specific transmission medium nor limited to knowledge that directly described past events (i.e., TK is living knowledge, rooted in but not entirely concerned with the past, and has contemporary relevance and utility). Respondents instead largely agreed that "traditional knowledge" should best be taken to connote knowledge with inter-generational, regionally specific cultural continuity. Understanding TK as both regionally and culturally specific, respondents echoed sentiments expressed in the literature: the

term is a convenient shorthand for traditionally-derived aspects of Indigenous knowledge systems, but should be used cautiously as a generalizing abstraction. Each Indigenous culture's TK varies in content, structure, and transmission protocols; the term "traditional knowledges" might be a more accurate, albeit awkward, term.

Question 2b. Common forms of TK.

What forms of TK do you tend to encounter in your work as an archaeologist?

This question was intended to elicit more specific examples of what aspects of TK archaeologists actually engaged with regularly, as opposed to the perceived qualities and nature of TK (as in Question 2a). The following examples of TK were all mentioned by more than one respondent: origin stories, understandings of other species, landscape, self-knowledge, science, cosmology, resource and land use knowledge, place names, language, practice, oral traditions, worldview, protocols, mores, cultural and personal memories, and imagery/motifs.

Not surprisingly, the forms of TK that respondents most commonly spoke of were those that most directly correlate with types of cultural behaviour most likely to produce the sort of material evidence that archaeologists work with. Respondents spoke to directly-historical TK that offered potential correlations to marks they might be able to find on the land and practices that may have continuity to the present day: oral histories or cosmological explanations of geologic events, the practice and places for food gathering and processing, transportation routes, and settlement patterns.

Many respondents also noted the value of TK to get beyond those more accessible, materially-grounded aspects of the past—to get at aspects of the human past that archaeology is less able to access[19]. For example, Natasha Lyons stated that:

> Archaeologists are generally more interested in what we can dig up later. But we all know that we're all missing a huge piece of the puzzle, which might be about observations about astronomy, or how language changes, how names are passed—all that kind of stuff. So when I talk to living people I'm always very excited because we can get into that stuff.

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[19] See also Questions 4a and 6a1.

Similarly, TK can help to tie together what might first appear to be disparate or unconnected pieces of archaeological data:

> When you study the ancestral territory of the Gitga'at, it makes sense when you look at it as a whole. When you start making dots on a map and have to argue for their interrelatedness it becomes incoherent. It's like ripping pages out of a book. So when you actually get to talk to community folks and understand how things relate in terms of lineage, resource, travel corridors, all of this stuff, it allows you to stop looking at things like points of data and start considering it in a complete context. (Nyra Chalmer)

Less was said, explicitly, about the actual form this knowledge tended to take, though anecdotally it appeared that most respondents accessed TK in four primary ways: 1) through oral historical tellings by First Nations people; 2) through observing contemporary Indigenous practices, primarily as a result of being in First Nations communities; 3) through working alongside community members; and 4) from ethnographies[20].

Theme 3. Personal Experiences

I asked respondents to reflect on their own experiences working with TK and TK-holders. Though most respondents used the five questions of this theme to share anecdotes and expand on some of the biographical detail from their demographic answers, conversation also began to anticipate and explore themes more explicitly targeted by later sections: British Columbia-wide issues, sociopolitical implications, and epistemological challenges.

Question 3a. Nature of TK-engagement.

Have you engaged with traditional knowledge (TK) holders while working on an archaeological project? When you did, were these more often "chance encounters" with TK in the field (being in the right place at the right time) or self-initiated engagement?

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[20] More is said about accessing TK in Questions 3a and 5b.

This question was aimed at discovering how the respondents, all of whom worked with TK to some extent, were actually encountering and gaining access to it. Most indicated that they had not received formal education or training on how to work with communities, nor ethnographic skills. The less recent a respondent's archaeological education was, the less likely they were to have even encountered, at school, the notion of archaeologists working with TK. While most respondents indicated that they encountered TK both passively (right place at the right time) and actively (self-initiated), there did seem to be a trajectory in the careers of many, from relying on the former to seeking the latter. Many spoke of the experience of being new to archaeological field work, or to community-based work, and having encountered TK in a professional context inadvertently, perhaps clumsily, at first. It was only through experience that they learned how best to work with traditional knowledge holders—who to ask, how to ask, what to ask, even when to ask.

Brenda Gould's recounting of her first academic research is similar to a number of anecdotes I heard from respondents. She described her supervisor cautioning her against going directly to the associated First Nations community to find out what they had to say about their own history, recommending accessing it via previously recorded ethnographies instead. His fear, she explained, was that approaching community members directly might become too complicated academically (i.e., community knowledge and archaeological knowledge viewed as multiple, potentially conflicting lines of evidence) and socially/politically (a worry that different community members might provide different information, and that the archaeologists might find themselves in the middle of a community conflict as a result). However, Brenda persisted, beginning what would be a career-long habit of proactively seeking TK.

Michael Klassen began incorporating TK in his fieldwork after retrospectively realizing that his first research work had suffered for not involving the implicated First Nations community and its knowledge. He described his initial hesitancy to approach the Blackfoot people for fear they would reject his research proposal. Now, he says he would never start a project without collaborating with the First Nations community partners to develop a plan for incorporating TK.

Rudy Reimer/Yumks takes a similarly proactive approach. He noted, though, that even if an archaeologist puts TK-gathering at the forefront of their research project, the

process of knowledge gathering is often gradual, and cannot be forced. He recounted: "Years ago, as an undergrad, I did some interviews with the Katzie First Nation, and I was the typical junior scholar. I sat down in a room alone with an elder, and I just started firing questions. The elder was silent. That was awkward." What he learned was that he needed to be patient, develop a relationship of trust over multiple visits. Nyra Chalmer added: "That's the way that elders and people in the communities learn who you are, as well, both as a person and what your role is, and what you're trying to do. When I go out thinking, 'I'm going to interview so-and-so, ask them specific questions' ... for me it doesn't work." She has found she needs to develop relationships, rapport, and demonstrate a willingness to just listen: "It's a lot of just keeping your mouth shut, and being polite, people just open up [...] you have to build trust." Nola Markey also spoke to a need for trust building. She said that First Nations people sometimes feel self-conscious about sharing, thinking traditional knowledge is "hokey." So it helps, she said, to work and stay in the same area to establish a reputation as a receptive researcher, someone interested in listening.

Most respondents, in fact, spoke to the need to find a respectful middle-ground between being "proactive" and "reactive"—a need to act in a receptive manner, to invite the sharing of TK. For many, TK sharing has tended to be less formal and take place as a product of a collegial relationship with First Nations members, working together in the field. This is illustrated in four anecdotes:

> This information was always there, before it was recognized by archaeology as TK. Information was always there. We didn't realize we were gathering TK at the time. We were going out with First Nations representatives. We really would chat with them, make friends with them. We cared about them individually and their families, and definitely recognized them as authorities in that landscape, in that place. (Jesse Morin)

> When I am in the field I try to ask questions and be open to the FN crew that are there and what they have to share. [...] One of my favourite days in the field—we just did a surface survey of all these artifacts that were eroding out of the bank. But through this process, the two women I was with were telling their stories about how they spent their time there when they were kids, but also the oral histories associated with the place—what that place represented in a larger context. It might not have been the most "productive" archaeological day. But it was one of my favourite days. It gave me a huge understanding for the significance of that spot. (Jennifer Lewis-Botica)

When it comes to TK and arch, I find it just comes by being with people. All the years of picking up a random [First Nations] representative at a gas station at 7'o'clock, driving around the bush with people, they tell you stuff. It's there. And it's [largely] not collected in the manner consistent with any sort of social science methodology, but it sure works. More often than not I understand quite a lot more about the landscape just by [listening ...] to people who are not necessarily considered experts. (Joanne Hammond)

The most important technique is not about technology. It's about listening. As a society, as a people, we tend to talk a lot and not listen enough, and not absorb what we're hearing. We need to stop and listen. (Beth Hrychuk)

These sorts of sentiments were echoed by nearly every respondent, including: informal conversations during work lead to archaeologists and community members bouncing interpretive ideas off of each other (Jesse Morin); spending time in an area, coming to know the landscape, how people live on it, mitigates the need to ask as many direction questions about TK, and allows one to be more meaningfully conversant with community members (Peter Merchant); and becoming known in a community for having a genuine interest in their past eventually results in community members seeking you out, wanting to share their knowledge (Chelsey Geralda Armstrong, Dana Lepofsky, Natasha Lyons, Brian Pegg).

Respondents also spoke to the professional challenges of building trust and reputation with First Nations communities, conducive to TK sharing. For academic archaeologists, strong relationships may come about as a result of commitments to long-term research projects. But those respondents with experience in consulting archaeology described a tension between personal aspirations and professional exigencies that can result in frustration for archaeologists and caution from First Nations communities. As Brian Pegg put it, in CRM contexts there is often more reticence within First Nations communities to share TK for a host of reasons (e.g., concern over a commercial development project in question, concern about intellectual property, feeling overburdened by information requests, a lack of familiarity with the archaeologists at hand). However, many pointed out, it is also within CRM contexts that TK studies are often mandated. This can create a particular dynamic for archaeology-TK interaction wherein encounters are not primarily about research curiosity or results of proactive and circumstantial knowledge sharing, but more directly a result of legal and professional requirements. Jennifer Lewis-Botica spoke to the commodification of TK in this context— of it representing a mandated, monetary cost to clients to investigate and react to, a

potential commodity or burden for First Nations, and a procedural requirement for archaeologists.

As both George Nicholas and Darcy Mathews put it, archaeological projects involving TK ideally begin by identifying community needs, with First Nations' interests driving research projects and so better dictating under what terms, whose agenda, TK is shared. This is not the case with the majority of CRM projects in British Columbia, but did correlate more closely with the experiences of respondents directly employed by First Nations. For Jesse Morin and Morgan Ritchie, working directly for bands has meant involvement in research projects that impact rights and title claims, where archaeology stands alongside recorded ethnographies as lines of legal evidence. Where either is in need of fleshing out or clarification, community members are consulted with specific TK-related questions. I heard similar statements from every respondent who had been directly employed by a First Nations community: that it was not uncommon for their work to become more ethnographic than archaeologically focused at times.

Joanne Hammond's approach is to arrange for community members to do their own TK collection:

> In cases where I'm engaged with something that's specifically a TK-collecting project, I am generally not the one collecting that knowledge. If I'm working with a community, the interviews and the framing tends to be done by community members. People are more comfortable with those that they know and don't have to explain every term to. Being an outsider is more often than not an impediment to collecting that information. (Joanne Hammond)

Ultimately, no respondent had a singular or simple answer to whether they tended to access TK reactively or proactively. Most described beginning their professional practice with an understandable naiveté, needing to learn through experience—with knowledge holders, communities, professional and legal expectations—how to approach TK. The details of these approaches are explored more fully in the next question.

Question 3b. Outcomes of incorporating TK.

What have been the outcomes of incorporating TK into your archaeological practice, at each stage of your research process?

When posing this question I elaborated by proposing an artificial, but I hope serviceable abstraction of the archaeological research process—a three-phase division: project planning and research design; field work and other data gathering; and interpretation and report/paper-writing. I asked respondents to consider how TK figured into each phase. This question came from a curiosity about how fully respondents tended to work with TK—did it inform the kind of research questions being asked at the outset of a project? Did it affect field methods or other data-gathering techniques? And how was it integrated or presented in the final analysis?

Project planning: Not surprisingly, considering the responses to Question 3a, respondents universally preferred to consult TK-holders from the very beginning of a project. Regardless of employment situation, respondents spoke *en masse* about personally endeavouring to not start a project without first gathering background information on the associated area and First Nations culture(s), including and often primarily via TK (directly gathered and second-hand [mostly in the form of ethnographies]). However, in projects with smaller scope or tighter time constraints, like CRM-based impact analysis surveys, there was often no opportunity for this.

The ways in which preliminary TK gathering takes place varies widely. Darcy Mathews stated that:

> In CRM, large projects, such as pipe-line building, often begin with First Nations consultation, with industry sitting down with chief and council long before archaeologists are even involved. For nearly every researcher working in an academic setting, or working directly for First Nations, research projects begin with collaboration—asking the community, whose heritage the researcher is working with, "what shared questions are of interest to both of us?" How I can help, how they can help.

The preference for community-driven research foci was shared by all respondents. "To be honest, I actually think it's a disservice if you're just coming in to the community, taking on a project, and then you try to integrate TK. Unless it's a major component of your project, you're better off just not including it at all," said Morgan Ritchie. Respondents also stressed the need to go in to communities prepared. Preparation can include reading previous ethnographies and archaeological reports, speaking to colleagues who have worked in the area previously, learning place names and language, and familiarizing oneself with the more contemporary social and political history of the community. All of these produce a more efficient and respectful opening.

As Rudy Reimer/Yumks said, many First Nations communities are over-taxed by requests for information and meetings coming as a result of projects initiated outside the community. "One of the things that elders have told me [...]: "we're interviewed out, we've already talked about that ten times."

The challenges associated with legislative/legal expectations came up often in regard to end-of-project archaeological report writing, but Joanne Hammond says they play a part even at the outset of a project:

> [TK] tends to lie there on the paper, it tends to be in the background section [of a final report], and then brought up again in the interpretation or potential interpretation. Because regulatory reporting in BC is what it is—and it's very narrow—I find it's not welcome. And when I try to use it in other stages, for example, applying for a permit, if I go into any amount of detail about how I might use ethnographic or traditional use information, it is roundly criticized [by the BC Archaeology Branch]. They are very explicit about [compliance-archaeology's[21]] relationship to physical remains and physical remains only, to the exclusion of a lot of really important information, in my opinion.

TK affects many aspects of project planning, informing archaeologists' expectations about what to look for and where to look—aspects that are often formalized in preliminary research plans. However, when it came to discussing fieldwork, respondents tended to describe more informal interactions with TK-holders. For Peter Merchant, that includes spending large amounts of time on the landscape, even experiencing aspects of the communities' traditional lifeways. For Jesse Morin, being on the waters of Indian Arm with community members has led to a fuller understanding of navigation, allowing him to begin to model canoe-based travel in this region. For Brenda Gould, fieldwork ideally includes bringing knowledge-keepers out on field trips to help to verify the correlation between the TK they provided and the archaeological material she is finding. Most respondents described their primary field-based experience of TK as a product of casual conversation with First Nations colleagues and direct experience produced from spending time in the community, taking part, for example, in traditionally-based food procurement, processing, and cooking practices.

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[21] At times in this and proceeding chapters I use the term "compliance archaeology" to refer to archaeological projects that are primarily undertaken so that development projects will be in compliance with heritage protection legislation. These projects are often but not always undertaken by CRM companies.

Many respondents specifically commented on the role of younger community members, as holders and sharers of TK, but also often the generation that was most actively practicing traditional lifeways. Beth Hrychuk explains:

> Often it's some of the younger people who are out there now hunting, trapping and camping. They might not have all of the oral histories and information about medicines and sacred sites. But their basic knowledge of really good areas to camp—so where resources are—feeds into finding archaeology sites. Because archaeological potential is often based on how people utilize the landscape: what resources they're going after, where they're going to camp, what the set-back from a creek might be, how they can find areas that are dry, can get a bit more wind, southern exposures. Just having local land users out there—they provide a lot of insight into archaeological potential.

The "final stage" of archaeological projects—report writing for government, academic audiences, clients, and/or communities—raises two broad questions: First, how much integration occurs between archaeological and TK-derived data? And second, how does the particular audience—who has access to whatever record of the project is being produced—affect what TK is shared?[22]

In large CRM projects, where final reports will ultimately be made public (such as those involving the National Energy Board), archaeologists are cautious about what TK to include. A report may then instead focus on describing the consultation process, not the results. Beth Hrychuk explained: "[When I speak to clients in industry I] say: you are going to get a process, and you are going to get a product, but the product is going to be small. They often want the big report, but that's generally just not going to happen. The big report is going to go to the community." She and others described a process where, in cases where communities sought to protect sites of cultural importance not evidenced by archaeological remains alone, TK was shared by communities with the archaeologists and then in a more limited and non-written way with industry.

This experience of writing multiple, often separate reports, one for a commercial client and/or government and one for a First Nation, was shared by many. The aim of separate reports is primarily to protect the intellectual property (IP) of the community[23].

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[22] A discussion of the role of TK in archaeological interpretation is explored more fully later: in Question 4a, and the entirety of Theme 6 (particularly Question 6a1).

[23] IP concerns are more fully discussed in Questions 3e and 5b.

One respondent also recounted having worked on projects where different reports where produced for each of multiple First Nations communities, also to protect IP and confidentiality. This protective compartmentalization of TK appeared most prevalent in CRM contexts, not just for IP reasons but also—returning to Joanne Hammond's earlier comment—legislative ones. Jennifer Lewis-Botica said, "from our perspective [TK] plays a huge role. We always include it. [But] from a legislation perspective, it can't be used. It can be noted, but it can't be used to enforce a law—the Heritage Conservation Act—in BC."

When separate reports are not necessary—that is, when archaeological and TK information were included in the same report—respondents still described differing degrees to which they were comfortable, or felt it appropriate, to attempt to integrate the two[24]. Michael Klassen described his reason for endeavouring toward integration:

> Once we've gathered that [archaeological field information], in the reporting that we do we can incorporate it in the context of the TK that we had gathered in the first place. And we can say, "this trail, these are the reasons that we think this is a significant trail, and this is what elders said the trail was used for," and so on. So this isn't just a physical description, but it's a functional, historical, cultural description of those places as well.

However, as with many other respondents, he also found value in sometimes presenting TK in parallel with the archaeological data: as a separate but equal source. For some undertaking compliance-driven projects, keeping the two separate is a way of including TK while still presenting archaeological material evidence in a way that satisfies the aforementioned provisions of the British Columbia Heritage Conservation Act. For others, presenting TK separately is a way of respecting its autonomy and authority as a form of historical knowledge, not contingent on archaeological knowledge. Respondents also spoke of the importance, when drafting reports, to honour the terms under which TK was shared[25] and to ensure that TK is properly credited to the individuals who shared it.

A few respondents also spoke to the need to record the TK they were given, even when it did not appear to have immediate relevance to the research at hand. Joanne Hammond said, "you can, even after collecting data that you didn't think very

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[24] Question 6c examines how apparent conflicts between archaeological and TK interpretations are dealt with.

[25] See Questions 3e and 5b for more on information-sharing protocols.

hard about the sampling of [or know what to do with at the time], subsequently find out that TK informs that landscape, [or another aspect of your research]. It's never too late. I think we're a little bit shy about that." Jenny Cohen concurred: "as someone who doesn't share that particular cultural knowledge, I think the best thing I can do, when I don't know what it is, is to keep space for it, just keep open possibilities. It's a thing worth mentioning even if it's not something that would physically translate into material culture."

Question 3c. TK engagement over time.

Has the degree to which you engage with TK in your professional capacity changed over time?

Every respondent acknowledged that some level of change in their practice, vis-à-vis TK, had occurred. For some it was a change in their own knowledge, awareness, and abilities. Others noted that the context of archaeology in British Columbia has changed—relationships and collaboration with First Nations communities—and that First Nations themselves have changed too, building agency and capacity in heritage production and preservation. Most respondents' experience of change was a mix of these two sets of factors—the internal and the external.

Respondents described the growth of their own skills and experience, and a trend toward greater sophistication in their ability to work with TK. Brenda Gould's remark captures the sentiment of many: "I still kind of know nothing; I'm still in kindergarten in my knowledge. But I went from knowing nothing and just absorbing everything that I could to being in the position now of understanding a lot of TK sites when I see them based on education from elders and knowledge-keepers." While Brenda speaks to a sort of refinement of focus, she and others also reflected on a broadening interest and appreciation for Indigenous knowledge. For example:

> I think I was looking for more definite answers early on. I was looking for things I could ground-truth all the time. I was looking for specific answers to specific questions. I think now I've come to appreciate just general knowledge. And appreciate the depth of that knowledge, and how even if you don't get specific answers to specific questions, you're getting a fairly holistic perspective on culture, society, and landscape values. (Morgan Ritchie)

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Dana Lepofsky described the benefits of gaining experience over time, of both becoming a better listener, asking more sophisticated questions, and coming to understand the social and political context she works in, but also of becoming closer in age to the elders she most often discusses TK with. "I think that changes our relationship, and that changes the things that are shared with me." For Darcy Mathews, learning to work with Indigenous people and TK has involved learning to slow down. The way he moved with them physically became a metaphor for intellectual comportment too:

> [Indigenous colleagues] would kindly and patiently say, "Darcy, the way you're approaching this, your attitude ... you seem in a rush. This is often a problem in archaeology, you're in a rush." They'd say: "when you're working around our ancestry you can't be in a rush. So we just need to calm everything down and find a way in which we can change circumstances." They'd tease me and say I walked through the brush like an angry moose. Because I was bashing my way through the woods with a shovel in my hand, and the mosquitoes were getting to me, and I was like *crash, crash, crash* scarring everything away. But they'd say: "you can walk in a straight line like a white person, or you can move with the landscape." And now I can walk through the woods quickly and cleanly and quietly. Not like an angry moose.

With increased experience also comes increased humbleness for many, in reaction to a growing appreciation for the vastness and complexity of TK systems. Chris Arnett said elders often told him that while they could give him plentiful information, *knowledge* was a different and more difficult matter. Andrew Martindale described his increasing intellectual sophistication as paralleled by an increasing recognition his own ignorance: "I've become less confident, less certain as I explore these ideas [...] it's changed in my increasing sense of the daunting-ness of the task, and the complexities of what Indigenous knowledge and Indigenous history represents."

Respondents also spoke about the value in contemporary ethnographic research, but also their own lack of experience and confidence in conducting it. Michael Klassen stated, "there was a time where I thought that archaeologists were becoming the new ethnographers, but that we weren't equipped with the tools and knowledge to undertake ethnographic research." However, Klassen and others also said that in the course of their careers they have witnessed a welcomed increase in First Nations producing ethnographic research of their own, recording and interpreting their own knowledge. This has gone hand-in-hand with an increase in First Nations engagement

with archaeology, as well as a shift within archaeology toward attempts to incorporate Indigenous perspectives.

This was one of the many "external" changes respondents referenced. Peter Merchant spoke about a similar shift within the court systems (presumably regarding rights and title rulings since the aforementioned *Delgamuuk'w* decision), describing the Supreme Court as "embracing postmodernism." Andrew Martindale also sensed a changing climate—where twenty years ago he was reticent to publish on oral-records-informed archaeology, "it was considered to be crazy, when I first started," he said he now sees an archaeological climate that largely embraces the notion of TK as an important area of study. He cautions, however, that the discipline should not be too quick congratulate itself, nor be satisfied that this tension is resolved:

> [...] Archaeologists have only made these engagements when forced to by courts. We exist in a framework today where it's important we all feel good about ourselves, we pat ourselves on the back about our forward-thinking-ness in archaeology, but the truth is that we were driven by legal rulings, and we went kicking and screaming into this. So now we can look back and say we've done a great job, but as a discipline there was a deep unwillingness to do so.

Natasha Lyons said that when she was in undergraduate studies twenty years ago, there was very little talk of TK: "That idea of working with a community was not really vogue. The idea of working in communities and looking at power imbalances and that sort of thing, that was once more theoretical but has become more practical and applied over time." This was echoed by three other respondents, including Joanne Hammond, who described her early experiences of archaeology as "very narrowly conceived, excluding living populations."

Finally, three respondents argued that some challenges are increasing. Jenny Cohen and Peter Merchant said that the trend toward urbanization in British Columbia—a phenomena in Indigenous and non-Indigenous communities—means that we are all increasingly less familiar with the non-urban landscape and lifeways of even the more recent past. Joanne Hammond said that the political implications of British Columbian archaeology have become more fraught over time, creating a working environment where both archaeologists and First Nations people are guarded about what they say, about what archaeological work represents, legally, and how legal rights are expressed through use and knowledge of the land.

Question 3d. Challenges of TK-integration.

What challenges do you face in integrating TK into your archaeological practice?

This was one of the few questions for which it was relatively easy to categorize and quantify the responses received. The nature of the responses reflect the way in which I tended to verbally frame this question—that I was interested particularly in hearing about practical challenges (respondents were aware that questions about epistemology would occur later in the interview). Twelve respondents spoke to intellectual property concerns and the challenge of earning First Nations' trust; ten to money and time limitations; eight to challenges with knowing how best to gather and incorporate TK; and seven to issues with BC heritage conservation legislation and client expectations.

Frustrations stemming from BC heritage conservation legislation and enforcement (particularly its failure to substantively protect sites that are primarily identified through TK) came predominantly from respondents who worked in CRM or other compliance-based-archaeology circumstances. Their criticisms targeted both the BC Heritage Conservation Act (HCA) legislation itself (British Columbia 2017), as well as the BC Archaeology Branch, whose job it is to enforce and facilitate the act. Many stressed, though, that the primary issues lie with the legislation itself, and that the branch is essentially hamstrung by it. This mostly came down to what the HCA does and does not designate as archaeology (and so protect). This issue of fitting TK into the HCA structure—from research applications to final reports (first raised by respondents in Question 3b) is elaborated on here. Anonymous-1 explained:

> In BC we've actually been asked by the Archaeology Branch not to include any TK. We've had reports come back and they've said, "We can only deal with the HCA, so please remove this section." And it's ok if we make a passing comment about a historic cabin that predates 1846. But if we start talking about medicinal plants or whatever, [reports] will often come back to us. So we've learned not to do that, to keep archaeology reports strictly "archaeology" and strictly about the HCA.

The reporting structure of the Archaeology Branch, argued Anonymous-1 (as did Jenny Cohen, Brenda Gould, and Natasha Lyons), discourages archaeologists from engaging with TK by explicitly separating it from the methodology of archaeology. Rudy Reimer/Yumks has experienced that "artificial" separation in academia too:

When you're trying to publish [articles that combine "scientific" archaeology and TK] in high-ranking journals [...] the typical response is "I appreciate this cultural information, it sounds very interesting, but this journal is not the place for this kind of material. I highly recommend the author dramatically restructure this manuscript to not include this stuff. It should be published somewhere else." I've kind of realized "ok, I'll split these papers up into two pieces. I'll have the hard-core science there, that's one publication, and I'll have the cultural narrative here, that's another publication." But I do have a desire to publish [these facets as] a single paper.

Most respondents, at some point in the interview, argued for the need for horticulture and mariculture sites to be better acknowledged by the HCA. While these cultivation activities do not always leave obvious physical remains on the landscape, the spaces they have occupied (and in many cases still do) are often as, if not more, important to Indigenous heritage than those associated with more "classical" archaeological finds (e.g., the lithic scatter of a tool-making locale). This biases heritage protection toward what is more easily detected archaeologically and against areas that are better understood through TK. Darcy Mathews argues:

This Western conception of *what is an arch site?* creates a real conundrum with the people I work with. Some of these things we might consider a crossover between TEK and archaeology, like culturally modified trees (CMTs), are afforded some level of protection [...]. We can, under the HCA, protect lithic scatter. But protecting camas gardens becomes harder. Now there are provisions in the HCA that can protect specific places [of cultural importance] but, you know, the camas garden doesn't have the *carte blanche* protection that a lithic scatter does.

Those working CRM also all spoke to an increasing formalization of TK studies. This is a trend, Jennifer Lewis-Botica said, that appears to be imported from Alberta as part of oil and gas expansion into British Columbia. Where she and her colleagues had made a habit of collecting archaeological and TK data as part of a single effort, large industry is now often bringing their own TK specialists to gather TK, as a discrete process, which sometimes results in the archaeologists on the project having no access to it, or even being advised not to speak to First Nations community members. This is part of what Michael Klassen described as the corporatization of CRM archaeology in British Columbia—of mid-sized CRM companies being swallowed up by multi-national (and multi-disciplinary) project-facilitation companies—a trend most respondents reported observing in the last few decades in this province. The loss, he says, is not just in archaeologists being shut out of TK studies, but of archaeologists also being expected to work across the entire province, frequently moving around. Klassen noted that:

When I first started in consulting archaeology in BC, almost all the consulting firms were relatively small, owner-operated businesses that were much more flexible and responsive to change in particular conditions. More regionally-based. They'd specialize, say, in Vancouver Island or Southern Interior, and they built up a solid strong knowledge of that area as well as relationships in that area.

This concern over archaeologists' ability to have a regional or even community-specific focus, to establish a deep knowledge of the local history as well as relationships with specific Indigenous communities, has and will recur throughout this and the following chapter. The core aspect is the issue of trust, of TK-holders feeling confident that their knowledge, when shared with an archaeologist, will be handled appropriately, and used in a way that benefits their community.

Intellectual property was the concern most frequently expressed. Respondents described a climate of apprehension or fear among First Nations:

Some First Nations are hesitant to share information about the location of things or about a particular story or whatever because they've had bad experiences, they've been burned, they've had consultants come and do work in ways that proved detrimental to community interests. So this requires—and this comes back to the more pragmatic aspects of being able to develop relationships before you actually develop a project—that you make it clear what you're doing, and what's in it for the community, and how will their information be respected and used, in terms of who will have access to it. (George Nicholas)

There's still fear and angst among knowledge-keepers about providing that info into the written, published realm. First Nations have continually, over the colonial period, had their IP taken out from underneath them. There's huge ramifications. It's one of the reasons that I don't publish a lot, because publishing means ownership. So if I'm going to publish something, I'm going to co-publish with somebody from the First Nation, so they can retain ownership of that IP. (Brenda Gould)

Control of TK from an intellectual-property standpoint, respondents argued, needs to be firmly in the control of First Nations. Trust, they said, is hard-won, and is unlikely to be earned at a discipline- or province-wide level. Rather, archaeologists, as individuals, need to invest in cultivating relationships with the First Nations communities they work with, as well as with individual community members. Jenny Cohen, Jesse Morin, and Michael Klassen all said essentially the same thing: that if you come into a community as an unknown person of unknown reputation, there is a very low likelihood that TK will be shared with you—and for good reason.

Most respondents argued that this conflicts with a large-scale CRM archaeology model wherein regional specialization among archaeologists and long-term relationships with individual First Nations are not prioritized. Chelsey Geralda Armstrong said that instead, large CRM companies often set up TK studies separate from their archaeological investigations, and produce models for community consultation that are often not truly consultative, and rarely collaborative. Respondents connected this problem, in part, to the limitation/allocation of time and money. Their message can be summed up in this way: doing due diligence, working with TK holders in an ethical and respectful manner can be costly and, particularly in CRM archaeology, time and money are often not prioritized in this direction.

Finally, eight respondents described the challenges they faced when trying to incorporate TK into their own methodology. These challenges included: needing to learn to understand the nuances of TK, to get beyond overly-literal interpretations of culturally-coded knowledge[26] (Michael Klassen); needing to learn (and being taught by community members) to ask the right questions, for productive TK-based conversation, and in the right way, to be socially respectful (Nyra Chalmer); to develop both ethnographic and qualitative research skills (Brian Pegg; Natasha Lyons); to recognize how one's own knowledge framework limits how fully one can interpret and understand TK (Nicole Smith); to learn who in a community to ask, who will be willing to share their knowledge, and whose TK is considered reliable (Chris Arnett; Natasha Lyons); to know the culture in question, beyond directly-archaeological knowledge—including language and mythology—in order to ask the right questions of the right people (Chelsey Geralda Armstrong; Chris Arnett); to sometimes put aside archaeological training, which teaches us to write in a focused, authoritative fashion, and embrace the experience of not fully understanding TK, perhaps needing to record and then put much of it aside until that understanding comes (Jenny Cohen; Morgan Ritchie). Many of these exist in the space between methodology and epistemology—in praxis—and are discussed in more depth in Theme 6.

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[26] This topic is dealt with in Questions 4a and 6a.

Theme 4. Challenges and Opportunities for TK Incorporation in British Columbia

Within this portion of the interview, I asked respondents to broaden the scope of their answers—to move beyond their own personal practice and comment on British Columbian archaeology as a whole, as much as the scope of their professional experience would allow.

Question 4a. Benefits of incorporating TK.

In what ways does British Columbian archaeology benefit from traditional knowledge incorporation?

Essentially I sought to better understand how respondents thought archaeology in British Columbia was made better by its engagement with TK. This question is broad, and was intended to move conversation toward province-wide—if not discipline-wide—issues. It is also one-sided, asking primarily what archaeology gains from taking (a kind of inverse question is posed in Question 5d: *What does archaeology give back?*). Three overlapping themes emerged: 1) that TK has the capacity to make archaeological research and interpretation more detailed and accurate; 2) that TK can bring the dry, depopulated nature of archaeological data "to life;" and 3) that working with TK needs to be a core part of an ethical and socially-engaged practice in British Columbian archaeology.

At the most basic level, archaeological interpretation benefits from the richness and cultural variation of First Nations in this province, as sources of historiographic information. As discussed in previous questions, particularly Question 3b, TK can play an important part in every stage of the archaeological process. It can, for example, inform how predictive spatial models for anticipated site types are built, contribute to the understanding of artifacts, or help to fill in gaps in the archaeological construction of culture histories. As Jenny Cohen put it, TK can help archaeologists to form both more interesting and more potentially productive research questions, by bringing to light cultural practices that may not be evident through artifactual material culture alone, or by complicating theoretical paradigms (e.g., the notion of the hunter-gatherer society). Similarly, Rudy Reimer/Yumks sees archaeology's recourse to TK as potentially

guarding against incorrect archaeological narratives being developed from scant material evidence.

Peter Merchant argued that TK enriches archaeological explanations by helping to answer not just the *what* questions but also the *why?* This is one aspect of the "enlivening" of the archaeological record that many respondents spoke about. "It takes the flat, boring, uni-dimensional aspects of sticks and stones and illustrates lives lived in the past. [...] that's really what we're trying to do is bring the past to life. And you can't do that without TK" (Dana Lepofsky). George Nicholas described TK as moving the analysis of material culture into a more humanizing context; Michael Klassen talked about TK as ushering in a new form of disciplinary creativity; Peter Merchant said that TK allows archaeologists to access historical landscapes that have cultural or sacred import but are difficult to understand materially; and Rudy Reimer/Yumks argued that TK helps push British Columbian archaeology beyond the limitations of the culture historical approach. Jennifer Lewis-Botica invoked the example of culturally modified trees in echoing the sentiments of many respondents:

> Do we need to record another CMT? Or would it be more valuable to record, let's say, the stories about how CMT harvesting areas were chosen? We have thousands of [recorded] CMTs. I'm not sure what more we can learn about them via the means we're trying to learn about them right now. I think we need to be a little more creative about what we're trying to find out. (Jennifer Lewis-Botica)

Many also said that archaeology in British Columbia needs to engage with TK as part of an intra-disciplinary process of decolonization, wherein First Nations voices are heard, speaking about their own heritage. As discussed in 3b, involving traditional knowledge holders at a project's outset affects research foci, potentially making space for Indigenous communities to better set the agenda for heritage protection. Michael Klassen argued that this shift is happening regardless of archaeologists' involvement, and that British Columbian archaeology must adapt in order to stay relevant:

> In a very pragmatic sense the game is changing and it's changing rapidly. First Nations are very rapidly [...] getting into the driver's seat in archaeology. And if you miss the bus, you're going to be left behind. First Nations have a different way of approaching archaeology, and there are going to be expectations that if you're working with them you're going to incorporate TK, and if you're not making the effort to learn how to do that at this stage, you're going to get left in the dust.

To Brian Pegg, this is a mutually beneficial phenomenon:

> I think that Indigenous peoples' push for political and legal and economic recognition of their rights has raised the bar for professionalism in arch in BC. Because there's an independent party with their eye on you, watching what is done, judging by their own standards.

Question 4b. Limits of TK.

What do you see as the limits of TK's potential contribution to archaeology?

In retrospect, I wish I had worded this question to be more distinct from Question 3e. Where Question 3e was intended to get at the practical challenges faced by archaeologists wanting to work with TK in an archaeological context, Question 4b was an attempt to speak to the perceived limitations of the ways TK can contribute to the archaeological endeavour—just how much, how broadly can TK answer "archaeological questions," or work in collaboration with archaeology to produce a picture of the past? While some of this intent is preserved in the questions' wording, Question 3e was aimed at discussing practical constraints, while Question 4b marked an intentional transition point in the interview into more interpretive, epistemological terrain[27]. Perhaps it is appropriate, though, that many of the responses to Question 4b amounted to critiques of archaeology and archaeologists, not of the limited applicability of TK. As archaeologists, we appear more capable and comfortable critiquing our own discipline.

I have assembled responses into three groups: 1) limitations of historical detail/resolution and of ethnographic analogy; 2) loss of TK within Indigenous communities, particularly as a result of colonialism; and 3) the challenges of integrating archaeological and Indigenous epistemologies. These are presented in turn.

Many respondents referenced a problem that will be familiar to all archaeologists: the challenge of ethnographic analogy—that the further back in time we attempt to look, the more tenuous or problematic the theorized connection between contemporary practices and ancient material culture become (see Gould and Watson 1982; Hodder 1982, Wobst 1978). This was, to respondents, less of a concern in regard to aspects of

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27 Because of my own lack of clarity in presenting these two questions as differentiated, many of the response to each overlapped the other. I have taken the liberty of moving some responses regarding practical concerns to Question 3e, and vice versa.

TK relating to broader phenomena—general landscape occupation histories, social structure, cosmology—and more for specific artifact explanations, such as tool construction and food processing techniques, where details of practice may shift or be lost over time. Many, though, also cautioned that archaeologists have a tendency to under-appreciate the amount of detail contained by TK. As Morgan Ritchie put it, "we're only scratching the surface. [...] We're going to have to do better archaeology, be better archaeologists, to finally get to the point where we're actually evaluating or adding to that TK [...], catching up with TK. It's all on us to start getting to some of those limitations."

However, largely as a result of the impacts of centuries of colonialism—of disease and death, colonial government attacks on Indigenous culture, and of breakages in the generational transfer of knowledge—much TK has been lost. One effect of this, respondents cautioned, was the effect of "read-back," where TK has been recorded in ethnographies then temporarily lost by communities or individuals before being re-learned from those written accounts. Joanne Hammond explained, "the phenomenon of read-back can interfere quite a bit with learning about traditional use/knowledge in the landscape, where you're hearing the same thing [from many sources], verbatim." The problem, it seems, is not that knowledge transmission has taken a written rather than an oral or practice-based form, but that it has, in these cases, passed through a chokepoint—the potentially biasing and homogenizing product of ethnography. To Rudy Reimer/Yumks, this is a phenomenon that warrants caution but also potentially offers knew knowledge:

> I've gone into communities and have talked to people ... interesting, you see this after a time, people say, "oh, come back tomorrow, I have to think about that." But you look at their bookshelf and there's a copy of Boas. And so you come back the next day, and they tell you what you already know is in Boas. So I guess that's good in a sense, that that knowledge is being absorbed in a different form. It is still cultural knowledge, it was just transformed into something else. But then it reverses in some cases. I've also had the experience of talking to people and saying, "oh yeah, that's what [the Bouchard and Kennedy ethnography] said," and then them replying, "yeah, but that wasn't quite right. Here's what I know about that." Because their uncle or aunt may not have been interviewed.

The majority of respondents essentially turned this question back on themselves, arguing that the biggest limitation to TK's contribution to BC archaeology was in archaeologists' ability to move beyond the cultural bounds of their own epistemology. Ethnographies, George Nicholas said, are more familiar and comfortable terrain for

archaeologists because they come pre-filtered through anthropological frameworks. TK, on the other hand, requires more hermeneutic work. Chelsey Geralda Armstrong responded similarly, explaining:

> I think that every person that grew up in a Western world is going to at some point question the validity of TK. And not to the point [of thinking] it's wrong, but I think there's always going to be a bit of an epistemological dilemma that we struggle through. And I think anyone who says they can just incorporate it fully and it's no problem, I think they're lying to themselves and to each other.

Andrew Martindale described the challenge of moving between different epistemologies as...

> ...the most difficult intellectual challenge that anybody faces. There are things that are knowable within one frame of knowledge that are not knowable in another. And so this request to travel between these spaces requires concession, [which in turn] requires a vulnerability that I don't see a lot of movement on.

Nyra Chalmer spoke to the degree to which her own upbringing, the way in which she has learned to see the world, limits her ability to understand the perspective of someone raised with a different cultural worldview. "Maybe your responsibility as a researcher is to keep your mouth shut—you document what you see archaeologically, and you document what one or maybe multiple groups have to say about it." This recalls Question 3b, where respondents described the value of sometimes presenting archaeological and TK as parallel, non-integrated sources[28].

Natasha Lyons offered these concluding thoughts:

> [It is important to know] your own history. Who did you come from, and what tradition of thought did you come from? And what have the major influences been on your own life? Any of the things [Bruce] Trigger would ask you to do in preparation for going into a community, you should be doing on yourself.
>
> […] Are there limits [to the archaeological application of TK]? There are certain constraints in what you might find and how you might interpret. But in terms of how you integrate [TK] with archaeological knowledge,

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[28] A few respondents took this opportunity to speak to issues of data incongruence—situations where oral histories and other TK specifically did not correspond to archaeological findings. These responses have been incorporated into Question 6c.

wherever your imagination can go within those particular constraints are where you can travel with it.

Question 4c. Future of the TK-archaeology relationship in British Columbia.

Where is the archaeological discipline in this province headed, in terms of TK engagement?

The large majority of respondents were generally optimistic when challenged by this question to prognosticate. Many replied along the lines of, "British Columbian archaeology is cutting edge, in terms of working with TK." But all saw much room for improvement, from greater control by First Nations over their own land and heritage, and for more First Nations archaeologists, to a need for archaeologists to further develop their willingness and sophistication for working with TK, as well as improving relationships with First Nations communities. Some respondents answered this question with a combination of aspirations and worries, while others phrased their responses as best-guesses, more directly accepting the invitation to prognosticate. These different approaches to the question comingle in the following summarization.

The growing agency and capacity of First Nations to control their own heritage was identified as a trend that will continue. This manifests in a number of ways. As noted in the demographics of Question 1, a number of respondents are (or have recently been) employed by First Nations; they and others said they expected that increasingly archaeologists in this province will be working directly for First Nations. Respondents also described an expected increase in First Nations communities conducting their own TK or land-use studies (Beth Hrychuk), of community members training in archaeology and related fields, with the intention of returning to and working for their communities (Nola Markey), and generally of an increasing interest among First Nations in how the craft of archaeology can add detail to their historical record (Chris Arnett). Jennifer Lewis-Botica described this as "bottom-up change" that will result in TK increasingly standing alongside archaeology, recognized both as historically valid and the starting-point for research. Brian Pegg and Joanne Hammond concurred:

> I think a lot of archaeology projects will evolve to the point where local Indigenous communities have most top-level control. And then your basic field methods—that's up to the archaeologists, and you apply them to the

questions that Indigenous communities bring to you. So much more of an applied focus. (Brian Pegg)

I see First Nations getting more and more power every day in BC. And, to generalize, in my experience, their preference is more TK, more traditional use, more cultural heritage, less archaeology. Those spot locations aren't so important to prove. We don't need that kind of proof anymore. So I feel now we're moving into a sort of reclamation of traditional practices phase, where now that we've established that people were here and used this land for all those thousands of years, people want to start using it again. Not worrying so much about protecting these lithic scatters, just getting back the use. (Joanne Hammond)

Many noted that each new generation of archaeologists entering the field appeared to be more interested and open to working with TK. However, Chris Arnett cautioned that such open disposition is not yet being matched by the skills needed to understand and work with TK beyond a superficial level. Jesse Morin observed that graduate students are increasingly turning their anthropological lens on archaeology itself with the aim of developing more sophisticated approaches that consider archaeology's social impact and its epistemological underpinnings.

There was much conversation centering on the expectations and aspirations for changes to heritage legislation in this province. George Nicholas said he expects heritage protection legislation and enforcement to be substantially different a decade from now, hopefully "in ways that are sensitive to [a wider] range of archaeological interpretations or that acknowledge local values." Nicole Smith shared this hope, adding that changes are needed in heritage policy to better incorporate the perspectives and values of TK holders. She echoed Joanne Hammond's (and, earlier, Darcy Mathews') comment about the ways in which British Columbia's current archaeological framework is ill-equipped to deal with traditional use sites with modern continuity:

This is where I see that clam gardens could play a role. Because personally I don't see why we have to try to fit them into current understanding of what an archaeology site is and how it should be managed. There's a lot of TK that would indicate that these are living places that are continuously being used. So what does that mean within policy framework? [...] And as we start to find more sites like that that can be restored and rejuvenated— [CMT groves], root gardens, and perhaps fish traps, and so on—then there's going to be a whole lot of archaeology sites that perhaps need reclassifying and to be managed in a different way.

Others looked to recent legal rulings as harbingers of change. Joanne Hammond identified a trend towards courts siding with First Nations in rights and titles claims, "that in BC archaeology is going to require a really substantial revaluation of what archaeology is protecting." This is at odds, she says, with what she sees as an increasingly process-oriented and epistemologically-constricted approach to heritage legislation enforcement—a tension that will inevitably need to be resolved. Michael Klassen sees legal renegotiation in the near future as well:

> In core areas, the treaty system is broken—treaties are not going to happen. It's going to be [provincial] government to [First Nations] government agreements, and those agreements are going to eventually include responsibility for archaeology under the umbrella of provincial legislation. And I think we can see that that's the direction it's going. There's a section in the Heritage Conservation Act, Section 4 [British Columbia 2017], which gives First Nations the opportunity to develop basically a co-management regime with the province, where they identify a schedule of sites and site-types and heritage concerns, and develop a co-management regime for managing within their core territory.

Finally, two respondents worried about the increasing potential for TK to be lost. Dana Lepofsky said that while the larger picture in British Columbia is of a greater recognition of TK, First Nations communities are racing against the tide, against the loss of TK, "in terms of knowledge-holders dying, languages going, and archaeological sites being destroyed. All of those are TK." Peter Merchant recounted his experiences working with First Nations students, and increasing skepticism about certain aspects of TK:

> We [the First Nations students I teach, and I] have incredible discussions about does [TK] exist. [Some say] "why even bother with it?" Others say "no, it's really important." And it's largely based on the habitus, the experience of these students. Some grow up in different worlds. This is the major schism in First Nations societies—the relationship with the land. One thing the students ask is, "why do we do land-use and occupancy studies, and focus 95% of the past, when 3% of the community are hunting? We have ten hunters in our village, hunters and trappers, the rest of us work in office jobs. Why are we doing these studies, interviews, when no one's doing that anymore? We work in the office. We go fishing on the weekends or hunting for fun, but that's not how we live."

Theme 5. Socio-political Implications of TK Incorporation

Question 5a. External pressure for TK incorporation.

Do you feel any social or professional obligation to incorporate TK into your archaeological interpretations of the past?

This proved to be a difficult question for most respondents to answer, at least in the way I had intended. My hope was to gain a better sense of the larger climate in British Columbian archaeology—whether archaeologists felt either peer/colleague or social pressure to work with traditional knowledge. However, every respondent was self-motivated, in one way or another, to seek out and work with TK as a regular part of their practice. As a result, it seemed, many said they were not aware of, or responsive to, external expectations (which was not necessarily to say that none existed).

Respondents did take this opportunity to speak a little more personally about their own motivations. For some, working with First Nations and TK holders from a project's outset was a non-negotiable ethical requirement—the only way they would consider practicing. Others said that not working with TK would simply be "bad archaeology"—akin to ignoring any available data source. A few respondents also explained that their primary interest in becoming archaeologists was the opportunity to combine fieldwork with community work, and so collaborating with TK-holders is a natural extension of that original impulse. Two remarks capture the sentiments of most respondents:

> Absolutely [I feel obligated]. It would be nonsensical for me to try to understand the Indigenous past without insight from Indigenous communities. It would be illogical to attempt to understand peoples' histories without understanding them, and understanding the way that they understand history. (Andrew Martindale)

> These days if you're an archaeologist that doesn't somehow work within the realm of TK or have any kind of experience with TK, then you're not doing your job. [...] and your interpretations are probably faulty. As we know from feminist archaeologies, they're probably going to be very biased. (Chelsey Geralda Armstrong)

For many respondents, personal motivation overlapped with their sense of professional and social obligation. Brian Pegg described a feeling of indebtedness: "I wouldn't have my practice if I didn't [work with TK]. Archaeology has benefited tremendously from this

Indigenous knowledge, and so we have to be responsible to it," while Nyra Chalmer explained that for her, obligation is related to wanting to increase societal acknowledgement of TK: "I aim to give credit where credit is due, and make sure that people are well cited, so they're recognized as being knowledge holders, showing people who the real knowledge-holders are."

When it came to professional obligation, the mixture of the responses echoed much of what has already been discussed in previous questions: that British Columbian archaeology is a world-leader in working with TK-holders, and incorporating TK into archaeology is becoming increasingly normalized in this province; archaeologists who work directly for First Nations or on projects where First Nations exercise some permitting control do, of course, expect to be working closely with TK-holders, and sometimes on research that originates from TK; the problems with the BC Heritage Conservation Act and the way it is enforced means that there is often no legislated obligation to work with TK in compliance-based archaeology; the older generation of archaeologists are becoming more interested in, permitted to, and better at, working with TK, and new archaeologists are entering the field with a curiosity and enthusiasm to learn, coming from an education that increasingly places value on Indigenous knowledge but does not necessarily provide a strong skillset for ethnographic research or community work.

Question 5b. First Nations knowledge-sharing protocols.

How do the knowledge-sharing protocols of First Nations and TK-holders affect how or when you incorporate TK into your practice, or what TK you have access to as an archaeologist?

Responses to this question were widely varied, but could be split into two categories: First Nations' protocols surrounding sacred and specialized knowledge, and protocols of a more legal or intellectual property nature. Clearly, as many respondents alluded to, there is overlap between these two—a continuum between informal and formal protocols, with the former often informing the latter. In some circumstances protocols are explicit, in others permission-seeking is an implicit part of the research process. In large part, the range in responses appeared to correlate to a difference in both working arrangements (different expectations and formal provisions for CRM

archaeologists vs. archaeologists working directly for a band, for example) and in different regions of British Columbia (as Nicole Smith pointed out, knowledge protocols change significantly between different culture groups in the province).

I have organized responses concerning Indigenous knowledge-sharing protocols (i.e., those not directly pertaining to Western legality) into those that centre on sacred cultural aspects, such as burials, and those that pertain to knowledge considered "owned," by individuals, families, or communities. There is much overlap between the two.

The most frequent type of TK that arose in this discussion was that of so-called sacred knowledge—knowledge about mortuary rituals and burial sites, as well as medicines. Respondents spoke of experiencing varying levels of access to sacred TK. It is common for archaeologists in British Columbia to take part in smudging or blessing ceremonies at the outset of an archaeological project or as circumstances dictate. Less commonly (reported by half respondents), archaeologists working closely with communities described being invited to take part in closed community ceremonies or being told about burial sites, in both cases under the provision that they keep this kind of knowledge to themselves at out of any published material[29]. Many respondents also described situations where a community wanted them to understand that a particular area was spiritually significant, but withheld further explanation. As Brian Pegg explained, "that happens not necessarily because the archaeologist is untrustworthy at a personal level, but because of their interests—aligned with their client or the discipline of archaeology itself."

More broadly, many respondents spoke to a division between Indigenous knowledge that communities deem appropriate to share with outsiders and knowledge that is not:

> Some folks that I've been working with for a few years now, [...] I know that they know more than they're telling me. Either it's not the time for me to understand or just something that you don't talk about. Among the Coast Salish, for example, there are a lot of very interesting cultural things that they do that are not allowed to be shared with an outsider. (Jesse Morin)

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[29] Or, as described in Question 3b, resulting in separate reports being produced for the community (including protected knowledge) and for outsiders (not including protected knowledge).

Morin goes on to add that while trust, built from long-term relationships with communities, allows him (or someone that's closely associated with him) to access some TK that would otherwise be withheld from outsiders, that allowance would not necessarily extend to other archaeologists coming in to the community. Rudy Reimer/Yumks concurred, adding that despite his own First Nations heritage, he too will often be considered an outsider in other communities: "When I was doing interviews out at Katzie, I was introduced to Chief Pierre—my friend introduced me as 'native, from Squamish.' The chief just looked at me and said, 'I don't care. Just another archaeologist.'"

Reimer/Yumks also described the importance of understanding how family lineages within a community affect how TK is appropriately shared:

> Places are tied to villages and people in modern-day Squamish Nation, and other First Nations—they have ancestral ties to those places [...]. That's the way I identify what families have history from this place. So that gives me heads-up to which people in the community I should go talk to, if I have a research interest in that area. Students ask me, "who do you talk to, who do you approach in the community?" They can go talk to chief and council, but when you really get into it, [these] are the more traditional ways of identifying what families, what people, what groups of people have the closest ties. And then you can work from there. You discover the networks between places and people across the territory.

Knowing who is appropriate to talk to is something Beth Hrychuk grapples with regularly. Sometimes this necessarily involves gaining a better of understanding not just of family relations and proprietorship of knowledge in a single community, but across communities, either because of the geographical scope of a project or "because people go from community to community, marry into different communities. But we always err on the side of: if one person wants it be confidential, it becomes confidential. We always err to that one person and work from that point." Knowledge proprietorship can also be delineated along age or gender lines. Chelsey Geralda Armstrong describes the problem of large companies engaging in unsound TK research as a result of being unfamiliar with a specific community's membership or knowledge protocols:

> They go out with one community member, who's probably male and probably in their 30s or 40s. If you're a male in your 30s you're missing half of that knowledge, because a woman's TEK is very different than a man's TEK. The woman are going to look different than the men when you're doing ethnography. Age is going to matter, everything's going to matter.

All respondents spoke about legal provisions for protecting TK as intellectual property. For most, this begins with personal, academic, or company-produced consent forms and publishing/data-storage agreements—the most basic forms of formalized IP protection. These can—and oftentimes should—be expanded upon or adapted to fit community-specific concerns and needs, respondents said. Nola Markey drafts what she calls "wills" in collaboration with TK sources, to enrich data-storage agreements so that TK collected from that individual will be passed on to those they deem appropriate, usually next of kin. Rudy Reimer/Yumks often finds that he needs to design provisions for oral consent, in place of written forms, as some First Nations members are wary of what may appear as a signing away of rights (a repercussion, he says, of experiences with treaties). Natasha Lyons described her participation in the Local Contexts[30] project, which has developed a suite of TK-related IP symbols so that "communities can put labels on their own knowledge and say to the outside world: this is generated by us; you have our approval to use this in the ways that we dictate." Additionally, six respondents were members of the Intellectual Property Issues in Cultural Heritage (IPinCH[31]) research project, which investigates and works to protect culture-based knowledge rights, particular in regards to archaeologically-derived cultural heritage.

Finally, the issue of TK community vetting was raised. Morgan Ritchie described having many times reviewed archaeological reports that have clearly gleaned TK from a variety of secondary sources—knowledge he knows has not been validated by the associated community. He and other respondents described their preference for working closely with First Nations cultural committees, which review archaeological use of TK to ensure it has been used and cited appropriately.

While this may appear to create a precarious situation for archaeologists, particularly researchers whose careers rely on producing publications, many respondents argued that most problems can be avoided by communication. As Dana Lepofsky explained, "I have been asked what we do if we're about to publish a paper and the First Nation says 'you can't publish that because that's not how we see things?' And I said, 'the nation I'm working with wouldn't see the paper right at the end; we'd be working on it together'" (a view echoed in Nicholas and Hollowell 2007:68). Jesse Morin

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[30] http://localcontexts.org/

[31] https://www.sfu.ca/ipinch/

described a similar process: "if the ultimate goal is a publishable paper [...] [Tsleil-Waututh] will hold a caucus of some sort to review the document and they will screen that. I'll send a briefing note along with it saying: these are the key issues that you might find contentious." Darcy Mathews spoke similarly, noting that there is a tension between archaeologists wanting to have access to TK in order to improve their research, and the need to publish (or otherwise document). For him, too, the key has been having conversations at the very beginning of a project, where both parties can communicate their needs and expectations. "[The First Nations communities I work with] like to see copies of conference papers I'm about to present. They don't veto them or anything like that, but they just want to ensure that stories I'm telling reflects the values or the knowledge in their communities" (Mathews).

Question 5c. Power relations.

Do you perceive any unevenness in power-relations between TK-holders and archaeologists?

In the interviews I tended to elaborate on this question, prompting respondents with three variations: 1) Who gets to produce historical narratives?; 2) Who gets to decide when/where TK is involved in historical meaning-making?; And 3) What is the impact of archaeological and/or TK data in relation to land claims and other legal decisions? The larger implicit question was "how do power imbalances between archaeologists and First Nations affect First Nations' willingness to share TK and British Columbian archaeology's willingness to open its epistemological framework to TK?" Respondents spoke primarily to power resting in the hands of archaeologists (and British Columbian archaeology as a whole, as part of its colonialist context), but also described ways in which this traditional power imbalance is beginning to change.

Many respondents described feeling they hold greater societal authority to define First Nations history than do the First Nations communities they work with, saying variations of: "Archaeologists still, generally speaking, are in the power position. We get to ask the specific questions regarding TK, we get to determine who we speak to, if we speak to them, and where that information ultimately goes. If it is allowed to be reported it goes into our reporting style" (Jennifer Lewis-Botica). The logical scheme respondents described was essentially: in this province, archaeology is seen as an authoritative

voice—perhaps the most authoritative voice—when it comes to defining First Nations history; in the context of archaeological projects, archaeologists are in control (in the ways Jennifer Lewis-Botica outlines), because of the skillset they command and the funding they control; and those products of archaeological research largely end up serving institutions that are colonial in nature, be it industry, the BC Archaeology Branch, or the legal system. Andrew Martindale elaborates:

> If I were to stand up in a court of law, versus [a highly regarded First Nations elder], my voice would be more authoritative on his or her past than him/her. And that's nonsense. [...] I caution my students—everything you'll write will have significance. How you characterize other people can have more significance than how they characterize themselves, if you're working across this colonial divide. And that puts a huge responsibility in your hands. Things you say about these communities, who you may not know very well, will characterize them in ways they cannot shake. That's a truth that I think very few archaeologists recognize. If we did we'd be more cautious about the things we say. [We would also be more humble.] The very vastness of [Indigenous scholarship] should cause us to step back and be daunted. That we are still engaged with it and still maintaining a level of authority over it suggests that we're benefitting from a power asymmetry.

This recognition of a colonially-derived power imbalance underlay every respondents' answer, though many spoke to ways which First Nations are reclaiming power in some archaeological circumstances, sometimes through their TK. This changing landscape— of First Nations gaining more control over aspects of the archaeological process in British Columbia, explored by respondents in Question 4c, was elaborated on here. Those that spoke most forcefully about this change were also those who worked directly for First Nations communities:

> At a glance most outsiders would think that archaeologists are the power holders, and I would think that anyone on the inside would say the opposite: that archaeologists are sort of disposable contractors that come in to the community and actually hold relatively limited power. At least in the communities I work with, [First Nations] have a lot more clout in being able to determine which archaeologists and for how long and with what level of scrutiny can work with on any given day, [...] determining how much additional information the community is willing to share with the archaeologist, to either enrich or contribute to the process. (Jesse Morin)

> Bands want to engage in some way, from completely controlling the process and running it, to staying on the side and being observers. So the collaborative process has a spectrum. Often this is mistaken as a power imbalance, but it's not. It's a willingness to engage. There's different levels. Some bands want to engage because they want to control it for, say,

litigation. Others want to sit back and watch, don't want to get involved. I think the power balance, on a large level, is firmly in the First Nations' court. (Peter Merchant)

The power is rapidly shifting to groups that I'm working with where they dictate to the province and to industry who does the work and how the work is done in an extra-legal sense—in the sense that it's over and above what the Heritage Conservation Act requires. It often excludes government. The major projects I'm working on are direct agreements between the tribal councils and industry, and that agreement basically dictates who can do the archaeological work. (Michael Klassen)

What became clear through these conversations is that while BC First Nations have made gains toward controlling their own heritage through archaeology, and that TK sharing is voluntarily and at least nominally protected by the IP standards of individual archaeologists and their employers, the large majority of archaeological work in this province is initiated by industrial projects that pose a threat to Indigenous heritage, making TK itself socio-politically charged, and complicating the notion that it can be shared "freely."

Question 5d. Archaeology/TK value exchange.

What does or can archaeology give back to those who share their traditional knowledge?

Whereas the previous question highlighted the uneven relations within which TK is shared with archaeologists, and Question 4a asked respondents to describe how British Columbian archaeology benefited from working with TK, this question sought to explore the other side of the ledger—to better understand what, if anything, archaeology has offered traditional knowledge-holders as value exchange. Responses ranged from financial remuneration, to capacity-building, advocacy, adding historical detail, and "restoring" TK to communities.

Many respondents' first answer was "money." If knowledge-holders share both their time and thoughts with archaeologists, who are directly profiting from the work, then those knowledge-holders should be directly compensated. Others spoke to helping to build capacity within First Nations communities, including training field and lab workers and making one's services available post-project. For Darcy Mathews, the value return has often been in the form of the products of archaeological projects themselves, using a combination of archaeology and TK to educate the public or to provide information in aid

of a community's return to its land and (particularly its younger generation; see Lyons et al. 2010 for an example of archaeological involvement in inter-generational TK transmission) to traditional land management. Brenda Gould described the importance of using First Nations place names in archaeological reports; in some cases, those place names have been eventually adopted at a governmental level.

In a similar vein, many described circumstances where archaeology, bolstered by TK (or vice-versa), contributed to advocational efforts for the source community. Most directly, archaeological data can provide material evidence of oral historical accounts as well as occupational continuity for specific locations, increasing "strength of claim" toward rights and title legal efforts. Andrew Martindale argued that this is one of archaeologists' jobs—to essentially "translate" TK, taking what is already known by First Nations and putting it in linguistic and epistemological terms that the wider society can understand and appreciate. For Anonymous-1, such translation work comes mostly in the form of working with industrial clients, compelling them to understand that locations evidenced by TK to be culturally important require equal protection to those that exhibit clearer material evidence of significant occupation.

While respondents largely echoed Martindale's assertion that archaeology primarily confirms what First Nations already know about their own pasts, many also described how archaeology can add a level of detail, of granularity, to oral traditions. Michael Klassen argued:

> What's the strength of archaeology? [It's understanding] change over time. By its very nature it has a historical depth to it. [...] Oral traditions have a deep time depth, but not in a specific chronological sense. First Nations I've worked with are extremely interested in how archaeology can tell you about how long ago people were here, what they were doing, even how that's changed over time. So it adds that temporal dimension to TK. It gives TK physical manifestation. For instance, let's say they've hunted in this area for millennia—archaeology can physically show them that these are the type of animals that were being hunted. Not so much corroborating but enhancing their knowledge.

Finally, another common response—perhaps the most common—was that archaeology has a capacity to "give back" TK. Many spoke of the incredible destruction that has taken place within First Nations communities as a result of colonization. Mass population loss due to introduced diseases and intentional attacks on Indigenous society by government actions such as potlatch bans, reservation systems, and the Indian Residential School

system mean that there is now a centuries-long history of radical cultural disruption within First Nations communities. While respondents described remarkable cultural resiliency among the communities they worked in, they also stressed that many have also experienced significant loss of TK, as the usual methods of knowledge transmission (intergenerational, experiential) have been damaged. Archaeology, respondents explained, can play a role—"serve as an adjunct," as Chris Arnett put it—in helping to restore TK.

This "rebuilding" was described as taking two forms: literally the rebuilding of details of lost knowledge, and also the facilitation of knowledge transmission. As Joanne Hammond explained, rebuilding TK is related to the endeavour of increasing the historical detail of oral traditions:

> Archaeology can do favours for communities, in the sense of making reparations for colonial histories that severed traditional history-keeping and patterns of education and knowledge that existed before we got here, that we blew out of the water completely and have taken no responsibility for. I think archaeology has a lot of potential to answer for that, to help sort of bridge that gap of knowledge that now exists. For example, features on the landscape that there's no contemporary understanding or explanation of, but people know they're cultural somehow—approaching that from an archaeological standpoint can potentially help inform people and sort of make up ground that was lost. (Joanne Hammond)

Many described the importance of restoring TK as part of a process of building cultural identity and pride, and reconnecting with heritage—in communities in general, but especially with younger generations, particularly those that participate in archeological projects. Respondents also described being a direct participant in TK-transmission:

> Sometimes I could be out there with [a community member] where I actually hold more knowledge because of my experience with their elders; it's been transferred to me. It's interesting to have knowledge transferred to archaeologists and then back to their own community members. The [archaeologists] in my age demographic have had that experience going twenty years back, with elders who have now died. We then become part of the transfer of knowledge. (Anonymous-1)

Transmission of local historical knowledge could take multiple forms. Respondents described a variety of examples, but they tended to share a similar characteristic: effort made to make archaeological knowledge legible and accessible to stakeholder communities. For Rudy Reimer/Yumks, that means translating the technical and

specialized terms of archaeology into vernacular language, using Indigenous names for places and time periods; Dana Lepofsky and Andrew Martindale described using visualization technologies to produce more engaging and accessible objects from their research; Morgan Ritchie ensures he records TK from and for the communities he works for, regardless of whether it appears to have archaeological significance in the moment; and Jenny Cohen and Nicole Smith spoke about the importance of narrative in archaeology, of turning archaeological data into stories that enrich community histories. Without efforts like these, respondents argued, the sharing of TK remains a unidirectional enterprise: from First Nations to archaeologists to academic papers and governmental reports.

Theme 6. Epistemological Implications of TK Incorporation

While this final theme contained questions that overtly sought to focus on epistemological issues, clearly many aspects of epistemology had been raised implicitly and discussed explicitly in previous portions of the interview framework. Theme 6, however, was an attempt to more directly explore whether there are meaningful differences between the ways that archaeological and Indigenous knowledge systems in British Columbia produce and understand history and heritage, as well as what those differences might mean for archaeological engagement with TK.

Question 6a. Delineating historically-oriented forms of TK.

Which forms of TK do you consider most 'historically-relevant', or applicable to archaeology? Do you make that distinction? Is there a risk in trying to tease out historical information from a holistic knowledge system?

I often elaborated on this set of questions: If we understand TK as encompassing all aspects of an individual Indigenous culture's knowledge drawn from or relating to their past—a broader concept than oral history—then do archaeologists, for their own purposes, need to delineate between TK that is or is not relevant to archaeological research (i.e., strictly historical)? If so, how is that done? And to what degree is understanding TK contingent on preserving its cultural context?

While some respondents agreed that subdividing TK into "types" of knowledge can have utility in certain contexts (e.g., academic studies focused specifically on knowledge system structures, ethnographic recording of TK that requires organizational categories, or compliance with legislation that mandates the collection of specific types of information), all agreed that, as archaeologists, their preference was to attempt to gather and understand the full range of TK at their disposal. Many spoke to a tendency to be drawn preferentially to aspects of TK that might correlate with material culture, but also a hesitancy to rule out any aspect of TK as "non-relevant" to their research.

As George Nicholas said, the kinds of TK one is interested in are bound to vary depending on the research question at hand. TK relating to traditional lifeways (what is sometimes called Traditional Ecological Knowledge [TEK]) emerged as a focus. "Certainly TEK [predominates]," said Jesse Morin. "The knowledge of the local environment, ecology, and resource cycles. From what people were doing at a given site or what time of year they might have been there, to how they might have processed a certain resource. That can inform a lot of archaeological interpretation." A major value of TEK specifically is its contribution to a better understanding of traditional landscape management—bringing to light practices that have eluded archaeological perception, such as prescribed burning, root crop cultivation, and clam gardens. Rudy Reimer/Yumks described an occasion when community elders identified a grove of cedars that had been continuously bark-stripped for two centuries. However, the information shared with him that day went beyond corroboration of a historical practice; the elders described how teachings of technique were passed down. Nyra Chalmer related a similar experience working with the Gitga'at. She described initially focusing on the subsistence-practices aspects of TK but, over time, experiencing a growing interest and capacity to understand the ideational aspects of TK that accompany the practical knowledge. "I feel like we can't discount these things any more than we would discount a good old layer in a shell midden." Others shared similar observations:

> Plants can have medicinal or food uses or recreational uses or spiritual connotations, and those things can all go together. As an archaeologist, you might be more interested in mapping out the distribution of the plant, or saying how it was used for food. But if you forget about those other components, how are you understanding why that plant might be in the archaeological record? If you focus exclusively on food and ignore the spiritual connotations of that plant, how are you developing an

understanding of the people that use that plant? You're not—you're only understanding a very small component of it. (Brian Pegg)

I would say [that knowledge about processing a certain plant and its occurrence in mythology are] not different. That's the real thing about understanding TK—I'm continuing to learn that how to gut the fish and the prayer you say before you gut the fish are intertwined. The knowledge, that prayer comes from the origin story of "*X*" about that place. (Dana Lepofsky)

These two statements point to the primary reason all respondents resisted categorizing or excluding aspects of TK from their research. "All TK is relevant [to my research]," Morgan Ritchie said, "because it adds anthropological detail and import to archaeological data." This recalls what many said in Question 4a, namely that a good archaeologist must consider all available information. As Rudy Reimer/Yumks pointed out, this can be a challenge to the archaeological imagination: "things like place names, songs, dances, other cultural practices—I think for most archaeologists it's difficult to imagine what the archaeological signature of that stuff would be."

Additionally, to ignore the aspects of TK that do not easily translate to material culture evidence is not just to miss out on part of the story, it is to risk misinterpreting the entire thing:

Part of working with TK is that once you take it out of context it loses a lot of its meaning. The interesting thing is that archaeology is by definition all about context. Once you take the artifacts out of context, it completely changes everything. And TK is exactly the same. They're both about context. [...] There is the danger, when you're doing that—pulling knowledge out of context, supporting this idea or this notion of what you're trying to. (Anonymous-1)

Here, conversation moved further into the realm of epistemology. Respondents spoke about TK's power to compensate for archaeology's limited ability to perceive ephemeral cultural behaviour, in particular to access the spiritual realms of First Nations culture, and to move archaeologists a little nearer to understanding Indigenous landscapes from a more Indigenous standpoint.

Jennifer Lewis-Botica argued that while archaeology is the study of the remains of human experience and behaviour, it is a mistake to study only physical remains. It is a tendency of archaeologists, because we self-identify as scientists, to feel that we need to limit ourselves to literally-tangible data. As many pointed out, TK can enrich systems-

based archaeological approaches to spatially modelling landscapes in order to predict past human use and archaeological site potential.

> A good example would be areas that by any [standard] model would be deemed of low archaeological potential. There could be other attributes—physical or not—of those landscapes that could make them have archaeological potential. [...] My experience has certainly been that there are locations that only are used [culturally] because of the spiritual or ceremonial significance. [I understand this through] the ancient oral histories associated with mythological creatures or power places. (Jesse Morin)

Part of understanding the landscape from an Indigenous standpoint involves coming to grips with First Nations spirituality, including notions of animism, ancestral spirits, and sacred spaces. Grounded in the secularism of Western rationalism, archaeology has tended to approach these concepts with an anthropological curiosity toward studying worldview, without allowing them to affect archaeology's core epistemology. Respondents spoke of their own challenge, both in understanding and in translating that understanding into a productive and respectful practice. Two example are instructive, here:

> I'm an atheist, yet the Coast Salish gravediggers and experts that I work with, they believe in the spiritual power of their ancestors, and they believe that if [...] I don't do my work with the dead correctly, the dead will be upset, and they will go back to the communities and affect the people in that community badly, maybe even cause death. [...] Now that's not my worldview, and I'm not saying that outsiders or archaeologists need to adopt those worldviews. But what I do is understand and take seriously how those spiritual relationships have extended into the past. So: given what we know, what kind of space did the dead occupy? They're powerful but they're liminal. The dead occupy this space at the very edges of daily life. They're there and they watch. So to take that seriously is to look for that, or even test for it, in the archaeological record. I tested this idea of liminality and visibility. And sure enough, these interesting patterns started to emerge, which I think are best explained through this First Nations relationship with their dead. So if we take that seriously, and as archaeologists actually think that their spiritual relationships can actually structure their material and spatial practices, that's really powerful—to provoke the kinds of questions I asked, and the kind of data I collected, and certainly helps me to understand it. […] These are relationships—spatial relationships, visibility relationships, spiritual relationships that are archaeologically detectable. (Darcy Mathews)

> What is a shell midden? It's an intervention on the landscape, it's a sacred space, it's a place that people know and go to, it's a set of memories. We use the word "shell midden" which has this denegrative quality of discard.

But what we're seeing is a marker on a cosmological landscape as well as a physical one, entwined. Most of them are burial grounds, and if they're not specifically grounds they're places of potential burial grounds. They're thresholds, portals into the spiritual domains. That little conversation right there is blasphemous in many archaeological quarters, right? That's the point. We have to figure out a way to accommodate this way of knowing, this culturally-constructed way of knowing into archaeology. We already accommodate a culturally-constrained way of knowing in archaeology, it's just not the Indigenous one, so we need expand our [horizons]. How do I deal with oral records when their causality is spiritual? Do I reject the spiritual component? Strip out the so-called "secular-ness"? Do I parse it out into truth and fiction? Do I ignore it all—jettison the entire endeavour, say it's all fictional? Or do I find some way to allow archaeology to recognize spiritual significance? We should be able to use oral records, not in spite of their spiritual content, but because of their spiritual content. (Andrew Martindale)

This tension between the secular and the spiritual is one that Martindale argues archaeologists should be engaging with more directly. It is also a tension that Michael Klassen describes encountering within First Nations communities, where the desire to protect sacred spaces and follow spiritual protocol can be at odds with community desires to investigate and protect their heritage.

With many respondents, this question brought conversation to aspirations for a better understanding of how First Nations people see, and have seen, their word—an archaeology that is more emic, more internalist. Darcy Mathews spoke of a need to move beyond a taxonomic understanding of plants, animals, and landscape, toward a more fluid Indigenous understanding, both to improve our understanding of First Nations' pasts, but also so that archaeology may offer something to the future in terms of ecological management. Jesse Morin endeavours to better grasp the relationships between genealogy and territoriality, where historical familial relationships supersede Cartesian representations of space. Nyra Chalmer also aspired to move away from maps as her primary way for interpreting the landscape, to better understand the areas she works in a way that is multi-layered, with geologic and ecological knowledge intermingling with experiential and narrative local knowledge. Nicole Smith spoke about the need to become better at working with stories, in order to bridge the epistemological gap between recent oral history, ancient mytho-historical narratives, and archaeology's own approach to rendering the past.

Question 6b. Authority over the past.

Does TK represent a challenge to archaeology's authority to speak about the past? What about vice-versa?

This was another question[32] that elicited responses that conflated ideals and realities, though not unproductively. Respondents tended to answer both possible readings of the question: "have these two ways of knowing the past challenged each other's authority, *in practice*?" and "*should* they be seen as a significant challenge to each other's authority in the present?" While most respondents agreed that "TK vs. archaeology" is not an epistemological or sociopolitical contest that should exist, half described how archaeology has and continues to be the dominant creator of historical narrative in British Columbia. They also described how this dynamic is slowly changing, with Indigenous knowledge increasingly challenging both archaeology's authoritative position in colonial society as well as archaeology's own epistemology[33].

A minority of respondents (eight) simply said "no," that there is no compelling conflict. Both archaeology and TK, as Chris Arnett put it, "are dealing with reality." "They just build on each other," said Brenda Gould. This was a common stance—that for the archaeologists themselves, the two ways of knowing the past could coexist and be complimentary. Dana Lepofsky said that this was increasingly a sentiment within First Nations communities too:

> One thing that's shifted over the years is that the First Nations here in BC […] are more comfortable with archaeology and what it means. The younger generation understands about Beringia; [...] there's more of a duality in peoples' understanding of origin stories and that kind of thing. That was always a contested thing, the land bridge story. Are you from Raven and Clam shell or from Beringia—which is it? But I don't think the younger generation has such a problem with that kind of duality.

Morgan Ritchie echoed this, reporting that his experience was of Indigenous TK holders as remarkably knowledgeable, but not claiming perfect or complete knowledge of the past. Respondents shared a similar humbleness about their own research. Both

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[32] In addition to Questions 4c and perhaps 5a.

[33] This clearly mirrors the range of responses in Question 5c.

archaeology and TK have different ways of interpreting and recording history, each with their own strengths and lacuna, and therein lies the potential for productive synergy.

However, many described the history of archaeology in British Columbia as a participant in colonial hegemony. Archaeology has held power by virtue of being legislatively mandated and financially supported, of being perceived as scientific and academic, and of producing historical information in the language of the dominant society. The few respondents who suggested TK poses any challenge to archaeology's history-writing authority were those who described a "corrective" trend, wherein a greater recognition of the scope of TK has caused some archaeologists to become more self-reflexive, about both the epistemological limitations and social impact of archaeological information. Most optimistically, some said (referring back to comments made in 5d) the extent to which TK and archaeologically-derived knowledge can mutually support each other allows for a future where archaeologists and First Nations are each increasingly empowered, each able to have more impact on public awareness and public policy in regards to heritage preservation.

Question 6c. Conflicting interpretations.

Have you dealt with incidents where your archaeological interpretation conflicts with the explanations of a historical phenomenon encoded in a community's TK? How have you dealt with those situations?

Considering the prevalence of this concern in archaeological literature, I was surprised that most respondents reported they had never encountered significant discongruities between TK and archaeology-derived data. Many, though, were clearly well-practiced at seeking out reliable sources for TK (as detailed in question 4a), and did caution against archaeologists "blindly" receiving TK from lone individuals whose expertise was unknown and whose accounts could not be corroborated with other community members. Another factor that may substantially mitigate the perception of meaningful discongruity is a recognition of the inherent limitation of archaeology: that it is a set of techniques that can only "discover" those aspects of the past that leave material evidence, and then only a subset of those that have left material evidence that has preserved and is "recoverable." There were, though, a minority—eight respondents— who immediately answered "yes," they had experienced interpretive conflict. For most of

those eight, the question called to mind a single incident. A number of these are recounted below.

Beth Hrychuk described being part of a community debate over whether squirrel middens should be recorded as cultural sites and if they should be protected. It was agreed, based on generations of TK about squirrel trapping, that they should. The community members and the archaeologists involved held an understanding on how squirrel middens worked that was based on how local Indigenous trappers understood them. A biologist (an expert on the red squirrel) who was consulted offered a substantially different interpretation—one that differed largely with the TK about animal behaviour, though did not directly contradict the experience of Indigenous trappers. She explains how this was resolved:

> I thought: oh my gosh, all of a sudden the TEK that I had collected from the elders wasn't entirely correct. They hadn't spent thirty years studying the red squirrel, as this researcher had. They were busy living, and trapping other animals. They had their observations, but they didn't have all the pieces. So I had this great meeting with a bunch of the people from a number of different First Nations, and we all sat around the conference table and I said: "you know what? I have some new info to put on the table." For the purpose of the discussion and because it was true, I really threw myself in with the First Nations, saying "we really have some stuff to learn about the squirrels. This is new knowledge." And everyone said "okay, maybe what we learned from our grandpas wasn't actually entirely correct." People were pretty open to it. And it changed how we worked to protect sites. So there's a great interplay between Western science and TEK, and they can really learn from each other. (Beth Hrychuk)

Darcy Mathews described his experience of discongruity:

> Working out at Rocky Point for my PhD work ... I do find human remains out there from time to time. A lot of the human remains we find are cremated. Talking with the Lekwungen and other Coast Salish peoples, they say, "well, we don't cremate our dead." But I think the people have been very receptive to hearing about this because they say, "well, these burials are maybe 1,000 years old, maybe 1,500 years old. And that cremation appears to have been practiced in association with these burial cairns." And of course they know that they don't [make burial cairns anymore either]. So while it contradicts their present knowledge, and even knowledge going back generations, clearly the evidence is there that they did build burial cairns and did cremate their dead. In my experience, handling that respectfully and tactfully ... people want to hear about this.

For Jesse Morin, gaps in TK are explicable (and in some cases avoidable) based on the type of questions archaeologists ask of TK holders:

> Every now and then someone will tell me something, an interpretation of an artifact that I disagree with. My take is that most aboriginal people in BC are at least four generations if not six generations removed from a lot of [direct experience with] traditional material culture. And so the interpretation of artifact function is really a lay interpretation, just like it would be with a non-aboriginal person. 100 years ago it would be a very different story. [...] I consider those "impressions" or "interpretations" rather than TK. I think it would be very different if someone said "my great-grandfather told me this is how you make a hand maul, where you find the stone to make a hand maul." That's different.

Morin went on, though, to express a sentiment shared by the majority of respondents:

> I don't think it's ever come up that [TK-holders] have a dead-set opinion that things are there, and I can't find a thing. More so it's been the opposite, where the preliminary archaeology is very limited, but the oral history tells us that stuff is there; there are place names. And the more you look the more you find. Lo and behold, they were right all along! So my experience has been overwhelmingly the other direction, that the oral history has been in part "verified" by the archaeology, and also helped guide the direction of the archaeology.

Furthermore, most respondents stressed the limitations of archaeology's ability to demonstrate the definitive presence of human activity. This was the insight of Behavioural archaeology (Schiffer 1975): that most human activity produces limited material traces; that those material remnants are subject to taphonomic processes that that may preserve or destroy the actual material or its context; and that archaeological investigation only finds a fraction of what is preserved *in situ*. The upshot is that in archaeology, as in any empirical investigation, *an absence of evidence is not evidence of absence*. This concept underlay every respondents' thoughts on this question of the potential for conflict between archaeological and TK-based understandings of the past. For example:

> I feel like if you've got somebody who tells you something about a place, and they say, "this is what I know," it doesn't matter if it doesn't fit in with what you're seeing. It's an alternate narrative. It's there for consideration. Because you never know what's going to come out down the line. Unless you're doing 100% excavation. (Nyra Chalmer)

> There's not always a fit. You're often going to be in a situation where the archaeologist says, "I can't speak to the cultural significance of this area even though the community insists it's one of the most sacred places in the

territory." That's not a limit of TK, that's a limit of archaeology. I suppose what I'm saying is that you just need to be very very clear that when you're doing archaeology, you're doing archaeology. It's unfortunate that we're asked to assess the significance of sites based strictly on the archaeology, so it's very important for archaeologists to just acknowledge that we're only addressing tangible components of the material world. We can't possibly challenge what TK says about an area, based on our understanding. (Morgan Ritchie)

Acknowledging the limitations of archaeology, respondents returned to themes explored earlier (primarily in Question 3b), regarding how their archaeological interpretations are framed and reported. Here, again, many respondents spoke to a need to present archaeological and TK-based interpretations in parallel—synergizing where possible, standing autonomously where necessary.

A number of respondents also cautioned that recognizing traditional knowledge as a deep reservoir of information and insight about the past does not mean that archaeologists should abandon the epistemological rigour of their own discipline. Andrew Martindale said, "I'm also very cautious, because the swinging of the pendulum from disdain [of TK] to unbridled enthusiasm brings with it opposing potentials for ethnocentrism and error." Jesse Morin recounted incidents where archaeological scholars have taken information gleaned from modern informants at face value, against the interpretation offered by archaeological and ethnographic lines of evidence:

I think that some people also take it too far. It's like relying on ethnography too much. The archaeologist has to seek a coherent story as well, and if you start to ignore features or artifacts that don't conform to your hypothesis, then you need a better hypothesis. I certainly think that the best archaeology includes TK, but it shouldn't be at the expense of pushing forward a supportable hypothesis just because TK says that it should be one way.

Natasha Lyons stressed that archaeologists need to do due diligence, corroborating TK between multiple community members, learning who in a given community is a reliable knowledge-holder. Michael Klassen stressed his belief that there will always be multiple ways of looking at a historical site, that no one approach should have a monopoly on interpretation, and that archaeologists must find ways of allowing multiple readings to exist in parallel. Joanne Hammond said that while she felt archaeologists in British Columbia should generally be humble in their own interpretations of history, in relation to the scope of TK, that archaeologists also need to stand by their own truths, offering their

best interpretations of the past even when they are not in concert with Indigenous knowledge.

Sometimes, respondents said, what may seem like a conflict in archaeological vs. TK-based interpretations of the past may be more of a difference of perspective. Canadian courts, according to Andrew Martindale, have long oversimplified and so misunderstood Indigenous traditional law and notions of land "ownership." Many others pointed to differences in conceptual phrasing, for example First Nations' assertion of occupancy in British Columbia since "time immemorial." While this is not a phrase that is easily integrated with archaeology's preoccupation with chronology, respondents argued that the notion of "time immoral" is not in conflict with attempts to find genetic links between First Nations and Asia, or to attempt to date early migration routes. "I think that's one way of describing a way of coming into being—it's out of memory, it's time out of memory[34]" (Nicole Smith). George Nicholas recounted occasions where elders spoke, in the face of archaeological evidence to the contrary, of their people having "always" conducted a particular cultural practice in the same way (see Nicholas and Markey 2014 for more detail):

> On the one hand you want to respect that, and on the other hand [this elder] is painting a very static picture of his ancestral way of life, or his ancestors' way of life, that I think diminishes their accomplishments in being able to respond to climatic change or develop new technologies. It's a really interesting tension between those two positions. So [you need to] look at any expression of knowledge as contingent to a particular time or a particular place, especially when you're looking at such things as historical knowledge or resource use knowledge.

Brian Pegg spoke to more recent history, another way in which history is expressed and understood differently: how the British Columbian 1846 cut-off date is meaninglessly arbitrary to the Haida:

> With the Haida Gwaii example ... when I got the dendrochronology results back, the dates worked against [the forestry company], because most of the CMTs were pre-1846. But some were of course post-. And it's not that the dates themselves contradicted Haida knowledge in that case. What was contradicted there was more of a perspective. The Haida perspective is that these trees are important, and it doesn't actually matter how old they are; it's still important regardless of whether they're pre- or post-1846.

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[34] This is, not incidentally, exactly how immemorial is defined: "*Immemorial*: extending or existing since beyond the reach of memory, record, or tradition" (Merriam-Webster 2017).

> Whereas my information is saying: that's all that matters. So it's not that one date for a tree being 1872 as opposed to 1841. That's not the important thing. It's at a bit of a higher level [consideration]. It's systemic. (Brian Pegg)

Finally, I asked some respondents whether they worked with TK differently depending on the antiquity of a site (and so the "antiquity" of its attendant traditional knowledge)[35]. Some interesting ideas emerged, though no clear consensus. Joanne Hammond likened TK to archaeological sites: the older they are, the coarser grained they become in terms of available information. This is not a matter of the accuracy or evidentiary reliability of TK, necessarily, but about detail[36]; some detail is lost over time. "I've found pretty awesome sites that are so old that they are out of social memory. It's amazing because it's pages pulled out of a book, and sometimes I find the page, or [the First Nation communities] have the pages, and we put them back together to get the full story" (Nyra Chalmer). Beth Hrychuk said that she tends to put more stock in TK that she perceives to have more antiquity, as stories and traditions that have been passed down for generations tend to be stable, vetted and corroborated community-wide.

Question 6d. TK another "archaeological tool?"

Is the incorporation of TK into archaeological methods a straight-forward expansion of the so-called "archaeological toolkit," a natural extension of the multidisciplinarity that's at the heart of archaeology? Or is that an inappropriate or inaccurate way of understanding this relationship?

This was an intentionally provocative question, and a leading one too—as is clear from its wording. I expected that while respondents would be partially comfortable thinking about TK as a kind of data set, they would also feel that this "tool" came with greater epistemological implications (demands and "productive frictions," as Chelsey Geralda Armstrong put it) than a new archaeological excavation method or lab technology. I posed this question in order to provide a space for this to be explicitly discussed.

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[35] This was a topic that came up without my prompting in the initial round of interviews I conducted; I did not make it a formal question until roughly halfway through the process.

[36] See question 5d for more on archaeology contributing detail to TK.

To generalize, all respondents effectively said: yes, TK expands the archaeological toolkit in British Columbia, in significant ways, but it demands special epistemological adjustments of the discipline, and socio-political awareness. Many spoke to profound ways in which they have had to reconfigure their way of thinking about archaeology, in response to working with traditional knowledge-holders:

> I think if you choose to use TK it becomes part of that toolkit. You can have a number of tools in your toolkit, but that doesn't necessarily mean you know how to use them properly. That's something that we as individual researchers learn, or choose to learn, over our careers. Again, you can include TK in your toolkit, but you have to be willing and open to allow yourself to understand in different ways that are not standard academic methods or techniques. (Rudy Reimer/Yumks)

> I think [TK is] much more than another tool. It's an appreciation for different ways of being in the world. It's decolonizing in the sense that ... on one level [engaging with TK represents] respect for another system, on another level it's [an acknowledgement] that our system isn't all it's cracked up to be. There's all these different ways of being in the world; why cut them out? We do that at our own peril. [...] We can look at things differently, get behind the veil of, say, materiality, and [by doing so] answer questions, solve problems that our Western framework doesn't enable us to. Indigenous knowledge sometimes can answer those questions. (Peter Merchant)

> I think ultimately [TK] is more fundamental because it is a way of knowing. Here's where it gets problematic. Because when we're talking about Western science or Western knowledge, we're really talking about a system of knowledge that emanates from Western Europe 400 years ago— so a somewhat discreet and temporal region. When we're talking about TK it's a far more nebulous term. So ultimately when we're talking about TK, if you want to get really awkward about it, ultimately it comes to some very fundamental issues of *what do we know about the world and how do we know it?* [...] And are [TK and archaeology] simply very different points of reference, or very fundamentally different ways of understanding the world? (George Nicholas)

Each of these passages points to the notion of epistemological difference—of the challenge to archaeologists (and, though explored far less in this paper, to First Nations) of understanding the past through multiple knowledge frameworks. This challenge is one many respondents spoke about having taken up. It potentially involves a fundamental examination of a researcher's own epistemological underpinnings, making TK a complicated and potentially powerful inclusion in their practice—different than the inclusion of another new theory or technique in their "toolbox."

I feel like I could switch [archaeological stances] ... like instead of practice theory I could subscribe to structuration, or whatever. That's permeable, and that's malleable, as we grow and evolve as theoreticians, learn different methods and everything else. But no, I think what we're talking about [in working with TK] are core values, and I don't ever see my archaeology changing in terms of a kind of engagement with TK. My understanding will evolve as I learn more, and I'm educated. But I don't see it as just another tool. I see this as a core value. You can pull tools out or get rid of tools, but this is something that is. (Darcy Mathews)

Question 6e. Methods and models for TK integration.

How do you figure out how best to work with TK in your practice? How useful is archaeology theory or practical examples set by your peers? And could archaeologists benefit from general guidelines & broad theoretical directives, or does working with TK necessarily require local, contextual approaches?

This question came partially from a curiosity about whether the things I had read in my background research—both the larger theoretical debates as well as the on-the-ground examples—significantly impacted how archaeologists in British Columbia were thinking about and working with TK. My sense (and in a way the underlying reason for focusing my research on interviews with archaeologists of varying backgrounds) was that archaeologists in this province often work in relative isolation, developing their research methods idiosyncratically, responsive primarily to local opportunities, needs, and constraints. I hoped to gain a better sense, from asking this question, how broadly they were drawing on ideas and examples outside of their own direct experience.

Overwhelmingly, respondents reported that their approaches to working with TK were primarily informed by their own professional experience. Most—including a number of academics—said they found little utility in reading archaeological theory; many reported having entered the field—usually straight from university programs—armed with theoretical knowledge but finding that ideas gleaned from literature were incrementally replaced by those generated from their own practice as they gained experience. The most common sentiment was that academic literature tended not to address the needs of archaeology practiced at a local level in British Columbia, and that attempts to analyze TK as a broader—perhaps pan-Indigenous—phenomenon were speculative, over-generalizing, and largely unhelpful. Jesse Morin explains:

I think approaches need to be developed at a local level, based on a rapport with the community, trust in the community, and ideally community-driven research objectives. I don't think that a one-size fits all approach works. I do know that there's literature that has tried to model TK, and I don't agree with that at all. I don't think we need to model the way that oral information is lost or preserved. A lot of people understand pretty clearly why it's lost or why it's preserved. They will tell me in literally every interview I sit down to do, why things have been lost. They wish they had their uncle or grandfather there with them to help them. I don't think people need to be taught how to use [TK], I don't even know if you could be taught how to use it. [Better to be] led by other reasonably successful examples of when it's been integrated.

The issue of whether respondents tended to learn from others' examples, despite being imbedded in my question, was largely not responded to. I am not sure why, and in retrospect wish that I had pressed this aspect. Two respondents did address it though: Jennifer Lewis-Botica spoke of entering CRM archaeology and finding few examples at the time of how to incorporate TK, leading her company to develop methods on the fly. There was, she reported, a kind of utility in "approaching every project as the first project, bringing humility," as well as invention. While, Joanne Hammond said, approaching each project as if it was your first can feel frustrating, she expressed a similar sentiment to Jennifer Lewis-Botica:

I don't think that's up to archaeology; I don't think it's archaeology's business to say how [TK] should be used. Since that knowledge isn't just, generally speaking, freely available to you, you almost always have to ask for it in some way or another. And I think that we're probably best to ask how to use it. Individually. Because it's so different community to community, how people think it should be used. If archaeologists are motivated to use it, they can find out how. But I don't think it's up to archaeology or our professional organization or the [BC] Archaeology Branch to say how that should be used. (Joanne Hammond)

Others closely echoed this sentiment—that it would be difficult to create or adhere to a single over-arching approach to working with TK and TK holders, as every culture group is very different. No respondent was keen on the idea of an imposition of guidelines for archaeologists working with TK at a province-wide scale, however there was an appetite for more governmental incentives to encourage and foster great opportunities for archaeologists to work more closely with traditional knowledge-holders. Morgan Ritchie also saw benefit to a certain degree of standardization, in the one sense that, from a legislative and legal standpoint, "there are definitely are forms of recording [TK] that are going to be more valuable to the nation, ultimately, if they want to go to court, than other

forms." Anonymous-1 also said that in CRM, there would be utility in some sort of province-wide agreement over what TK-recording should look like. Having the incorporation of TK encouraged—even standardized—in heritage legislation (and so the practice of compliance-based archaeology) would, they said, allow them to more effectively compel clients to spend time and money on collecting TK alongside archaeological material.

Lastly, a number of respondents stressed that archaeologists, as they increasingly work with TK, will need theory—at least the sort that can make us aware of our individual and collective epistemological limitations. Rudy Reimer/Yumks and Peter Merchant both spoke to the power of certain theoretical approaches (phenomenology and historical structuralism, respectively) to help move archaeological thinking toward a more Indigenous perspective, an Indigenous theory. This argument is further articulated by two final quotations:

> That's one of the things I have a lot of trouble with—a lot of archaeologists [...] abandon theory or feel that theory has little application to what they're doing, which is very method-based. I totally disagree with that. Everything in the way that we approach archaeology not only stems from epistemology, but ontology as well—our perspective on how we understand the world, understand knowledge and how that knowledge is incorporated into our cultural understanding. Obviously there's particularism—it's really important [to understand] very specific regional, locally-based contexts. But there's still higher level theory. Individual cultures have their own internal logic and so on, but they're still human, and they still operate in a human world with other humans and other cultures. I strongly disagree with the idea that higher level theory doesn't apply. (Michael Klassen)

> I think the danger is the latter [local, responsive approaches] without the former [broader theoretical backing]. The expectation that we can just arrive in Indigenous communities and understand their lives because we want to is deeply naive, and beset by all sorts of troubles. [...] Just as we can unpack Western logical arrays, we can unpack Indigenous logical arrays, for their content, for their form, for their scholarly capacities, and for their interpretive content. And so we must become anthropologists, we must become cognizant of Indigenous scholarship. This is the part that I find disturbing: I don't think an archaeological willingness, which is an initial step, to be better at understanding Indigenous scholarship is really going to be enough. As non-native archaeologists, we need to find ways that we can become students of Indigenous scholars and Indigenous scholarship. (Andrew Martindale)

Summary

The experiences and thoughts shared by my study's participants, when viewed as a whole, indicate a collective desire to involve TK as a standard component of archaeological practice in BC, and a desire to do so in a socially conscious and epistemologically reflexive fashion. The interviews also highlighted some of the systemic challenges of doing so. At a time when indigenous knowledge is gaining legal and social standing, and new generations of archaeologists are entering the field, enthusiastic to work directly with First Nations communities, archaeological education and professional training do not appear to be fully preparing researchers to work with stakeholder communities, and the province's heritage legislation acts as an impediment to suitably recognizing and documenting the important role TK plays in the construction of historical knowledge. Also, the dominance of large-scale private interests on the province's archaeological landscape makes Indigenous communities understandably reticent to share their knowledge, and interferes with the creation of the sort of long-term relationships of trust between archaeologists and communities that are necessary for the fulsome and mutually beneficial exchanges of information.

Participants described being largely self-reliant when it comes to determining how best to work with TK at an applied level—that interpretative challenges can mostly be worked out with the colleagues and communities they collaborate directly with. What they require, instead of broad theoretical directives or imposed methodological process, is the support of government and legislation, of clients and employers, to continue to develop ethical and productive relationships with traditional knowledge holders, and to creatively expand the ways in which they utilize TK to broaden and bolster their archaeological approaches to understanding the past.

Epistemological considerations were discussed as well, with respondents describing the challenges of interpreting TK as cultural outsiders, and of identifying the historically-factual aspects of TK while not stripping them of important (and sometimes equally historically-salient) context. Respondents also described the degrees to which they integrated archaeological and traditional knowledge, and the reasons for at times keeping them separate (guarding protecting knowledge; acknowledging occasional interpretational conflicts between archaeology and TK; purposefully acknowledging TK as an autonomous knowledge system not in need of archaeological substantiation) and

at other times seeking closer integration (the powerful ways in which TK and archaeology can add detail and meaning to the others' historical understandings; an interest in allowing archaeology to be more epistemologically porous; building TK into archaeological interpretation as a core value, not simply another data source to be utilized when convenient).

Chapter 5.

Discussion

My interviews with 22 archaeologists in British Columbia provided a compelling range of responses to my original research questions. Some were resonant with the ideas and concerns raised in my background research (Chapter 2, hereafter "the literature"). In other cases they diverged or were novel. In this chapter I retain the thematic structure of my interview framework, comparing the interview responses I received to concerns highlighted in the literature, and identifying those novel themes that emerged unexpectedly during the course of the interview process. Finally, I reflect on my research process, and what insight this study aims to offer to the relationship of archaeology and traditional knowledge in British Columbia and beyond.

Theme 1. Demographics: Meaningful Difference

As described in Chapters 3 and 4, the demographic interview questions were primarily intended to guide my respondent recruitment process. As the interview process progressed, certain demographic categories (Table 4.3) did appear to correlate to particular responses, reinforcing the value of striving for demographic variety (as I had defined it). For example, since younger archaeologists tended to have had less career experience, this limited their ability to speak to both changes in the profession of archaeology in British Columbia as well as to recognize significant shifts in their own working approaches. In some cases younger archaeologists holding more junior positions also appeared to have less opportunity to engage directly with Indigenous knowledge holders. Older archaeologists were more likely to describe having been educated and having entered the profession at a time when there was less receptivity to the notion of archaeologists working directly with traditional knowledge holders.

Other demographic categories appeared to be less meaningful. For example, I did not discern any patterned difference in the nature of responses coming from women versus from men. However, three demographic questions produced prolonged interview answers, and noteworthy information warranting further discussion: geographic region, educational specialization, and professional specialization.

Geographic regional variation

Respondents were drawn from across British Columbia (Table 4.3), and a majority (15) had professional experience in multiple regions of the province. At the onset, I expected that the area where an archaeologist worked might affect the ways in which they accessed TK. This was born out in the interviews, and appeared to be primarily due to variations between individual First Nations communities (e.g., differences in their specific pre- and post-colonial histories, preservation of TK, social organization, and political power) that impact their capacity to control their own heritage. The ways in which individual First Nations communities differently handled (communicated, shared, guarded) their TK was evident particularly with respondents who had devoted much of their careers to working in a single region or for a single First Nation (~5–7). Their answers to interview questions, while often resonant with those of other respondents, tended to be more idiosyncratic, evidently derived from an archaeological practice that developed in response to the specific community(s) they worked among.

Other respondents whose experience was more geographically broad were more likely to reflect on differences between First Nations communities vis-à-vis TK. Nicole Smith, for example, shared her thoughts on the different Indigenous knowledge-sharing protocols she encountered in communities that were primarily rural vs. urban (the latter, she argued, have experienced more incursion of development onto their land, and as a result are more experienced with working with the province's archaeological apparatus, leading them to have developed more formalized knowledge-sharing agreements). Others were able to speak comparatively about how they worked in British Columbia vs. neighbouring provinces and territories—how differences in First Nations cultures and provincial/territorial heritage laws affected their practice.

Most respondents, at some point in their interview, alluded to how this province's remarkable Indigenous cultural diversity made speaking about their work with TK in

generalized terms difficult and perhaps unwise. As Andrew Martindale (November 25, 2015) explained:

> I work with the Penelakut, I work with Musqueam, I also work with the Tsimshian. In my mind [discussing TK in general terms] is almost the equivalent of trying to understand Italy in terms of Ireland. They have commonalities, but you wouldn't apply that kind of blanket-European-ess without problematizing it. When I work with Musqueam communities about their history it's a very different political, social, and intellectual landscape than northern communities. Everything about the engagement is different. Everything about the culture is different. [...] Colonialism creates pan-Indigenousness. [Vine Deloria Jr. (1969)] pointed out early on that the context of this extraordinary imposition creates a commonality simply by its scale.

Martindale's statement calls attention to the fact that it is not only dangerous to use "traditional knowledge" as a pan-Indigenous term[37], but that one must be cautious about generalizing about a "British Columbian" experience of archaeologists working with TK.

Educational background: anthropology

Nine respondents spoke directly to the value of their anthropological education, in terms of preparing them to work directly with First Nations communities, build ethnographic skills, and appreciate the value of recognizing and understanding multiple worldviews. Interview responses that specifically invoked anthropology appeared to have two separate points of germination: the differences between being educated in an archaeological vs. anthropological department and the importance of TK to an anthropologically-oriented archaeology.

As indicated in Table 4.1, five of the 22 respondents had been educated solely in Archaeology departments[38], six in only Anthropology departments, and 11 had experienced both. Every respondent who raised the topic of anthropology spoke positively of its value in preparing them to work with TK. Some expressed concern that students emerging from university without an anthropological background were not fully prepared for working in British Columbian archaeology. The most strongly worded responses echoed Robert Kelly's (1998) assertion that by becoming "better

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[37] See Chapter 2 and Chapter 4, Question 2a.

[38] At the time of this writing, only two universities in Canada housed Departments of Archaeology: Memorial University and Simon Fraser University.

archaeologists" we risk becoming "worse anthropologists": "Many archaeologists actively distance themselves from cultural anthropology, often because of the excesses of postmodernism, but in so doing, they distance themselves from the descendants of those whom archaeology studies."

Jennifer Lewis-Botica argued that archaeology in British Columbia is in fact becoming increasingly anthropological, in response to the political and social realities of practicing archaeology in this province. Some with an exclusively archaeological education have managed to pick up anthropological skills through their practical experience. Brenda Gould (March 27, 2016) said, "It's funny, I did go to SFU [to study in the archaeology department], and I am an archaeologist, but I always laugh and say, 'it's because I'm an anthropologist that I get [TK].' Even though I'm a dirt archaeologist version of an anthropologist." Natasha Lyons (December 21, 2015) extoled her cultural anthropology background for preparing her well for a career in BC archaeology and cautioned that while much can be learned by *doing*, an anthropologically-oriented education provides students with a cultural awareness that makes for more effective archaeological engagement with Indigenous communities and their knowledge systems. Brian Pegg (February 2, 2016) argued that anthropologists have been attuned to the value of TK in their research much longer than archaeologists have, and that archaeologists in this province would benefit from knowledge of socio-cultural anthropology if they value TK.

Professional specialization

There is ongoing debate, in British Columbia, over whether the nature of compliance-based archaeology is fundamentally at odds with a community-oriented, ethical archaeological practice (for an illustrative exchange see Martindale and Lyons 2014; La Salle and Hutchings 2016; Martindale et al. 2016)—an issue with clear implications, as much of the last chapter illustrates, for archaeologists' work with TK. However, at least among my respondents, frustration with how TK and archaeologist-community relationships are handled in CRM was shared by those from all professional backgrounds—equally by those primarily employed in CRM as those not. This may in part be due to the fact that those in the respondent pool tended to individually have a variety of professional experience, with 19/22 reporting having worked in CRM at some point in their careers. This is discussed more fully below (Theme 3).

Theme 2. Relationships: Cultivating Trust

Respondents spoke at length about the ways in which they had gained access to and integrated TK into their practices. They chronicled how their level of engagement with TK had changed over time; each respondent described a trajectory toward more sophisticated and holistic integration. Finally, they described to me the practical impediments to working with TK as archaeologists in British Columbia.

As respondents spoke to each of the topics, one overwhelming theme emerged: the role and importance of long-term relationships between archaeologists and the First Nations. This theme first arose when I asked respondents about how they tended to access TK. While they variously described situations in which they sought out TK and others where TK sharing was initiated by First Nations community members, in "both" situation types the importance of trust and reputation were recurrently stressed. All respondents described the need to establish a reputation with the communities they worked in, as a professional who: a) is a good listener, receptive to receiving TK, including in informal settings (incidentally, in the field, vs. via formal interviews); b) prioritizes community needs from the outset of projects; c) knows the descendent community—who to speak to, what knowledge sharing protocols to follow, and what TK has been recorded in the past; and d) understands and honours IP-concerns regarding the publication and other forms of sharing TK, as well as ensures that recorded TK is returned to the community (much of this is also outlined in Watkins and Ferguson's [2005:1395-1400] list: "Twenty Good Habits for the Researcher").

Long-term relationship building was the one issue that every respondent raised, despite the fact that I had not specifically targeted the topic. Each spoke of the importance of individual archaeologists forming long-term relationships with the First Nations communities whose history, in whose territory, and among whose people they work. Below I gather together thoughts on archaeologist-First Nations relationships that emerged in the interviews as a whole. These thoughts were shared in reaction to questions regarding how archaeologists approached accessing TK and the challenges they faced in working with it, and also questions regarding intellectual property, power relations, and the future of archaeological engagement with TK.

Three intertwining elements informed all respondents' comments on their relationships with First Nations: building trust, developing reputation, and the time needed to do both. Respondents described how their relationships with individual First Nations communities grew slowly, usually over many years (if not decades) of work. Those relationships had professional aspects, but were also personal, developing outside of archaeological activities. A few respondents singled out the importance of family and family structure in the First Nations communities they had worked with. Beth Hrychuk (April 20, 2016) explained:

> I just came back from northern BC. I went specifically to visit four people who are knowledge holders. I wanted to talk to them, to give them an update on my children, all of that. I wanted to keep those relationships active. And I care about them; they care about me. With most aboriginal people and communities, they're very family-oriented, so it's important to just go to visit. Not to have it be all work all the time. It just takes that time to go in and sit down and have a cup of tea or whatever. So I do that.

Dana Lepofsky (September 3, 2016) described the many years spent at Sliammon, Chehalis, and more recently at Hartley Bay: "People just talk a lot about [you] coming back. You're still the visitor, but you become more of a friend and it equalizes things. And the more conversations you have over tea about the weather, the more that dissipates the balance of power issues." Chelsey Geralda Armstrong (December 17, 2015) explained that despite her First Nations heritage, when she first enters most communities she does so as an outsider. It is only through her continued presence there, her return over the seasons, and the community learning what community and family she comes from, that trust is built and knowledge increasingly shared.

Many respondents spoke to the caution and skepticism within First Nations communities that has been fostered by a history of archaeologists not serving as reliable, long-term partners. Nyra Chalmer (November 3, 2015) explained:

> Let's face it, there's this legacy of "love 'em and leave 'em." Archaeologists and anthropologists go in and take advantage of [First Nations] people's hospitality. We're making wonderful strides, but I'm talking about in the past, taking things out of the community, whether it be language or actual stuff, or knowledge—people just leave and never come back. And sometimes this stuff is used against the community. It's terrible. You have to build trust. And then the good stuff comes.

Jesse Morin (November 15, 2015) echoed this history, stating that communities are now actively seeking long-term research arrangements and partners. For Andrew Martindale (November 25, 2015), making a commitment to conduct research in a single community was a personal and very long-term arrangement:

> I travelled to Prince Rupert to meet with the traditional leadership of Prince Rupert, the Tsimshian. I asked them if they'd be interested in having me come along and poke around in their history. And after a very long and rigorous meeting, in which I was grilled on every facet of my intent and my character, the most powerful voice in the room, James Bryant, Chief of the Gitwylgyoots asked me (I am paraphrasing), "OK, we'd be interested in having you come here, and this is a project we wouldn't mind seeing done. We'll give you permission. But we have a singular request of you." And at that point I would have agreed to almost anything. He said, "If you come we don't ever want you to leave." Which was exactly the opposite ... I thought they'd say come and get out of here, because you're annoying. But instead they said "come and stay." And their point was that I did not understand the challenge of the task I was undertaking, that it would take a lifetime of work to recognize that. And I agreed at the time, and I've held my word, partly because I committed to it, but also because of its value.

Respondents pointed out that many archaeologists in British Columbia do not have the opportunity to stay in one community long enough to establish the strong relationships the aforementioned have described. One of the repercussions, Brenda Gould (March 27, 2016) says, is access to TK: "They're not really going to get much TK, because they're not going to be trusted with the knowledge." Respondents both within and outside of the CRM industry singled out large-scale compliance-driven archaeology as particularly problematic in this regard. Darcy Mathews (February 1, 2016) recounts his own experience:

> I guess it's really about building relationships and building trust. That's difficult to do in CRM archaeology. In my past working for consultant companies, I'd be working in Whitehorse one week, then I'd be working in Prince George, I'd be working in Haida Gwaii and the Okanagan. You can't build relationships that way. I think that model just doesn't work. I think one of the things that's really beneficial to archaeologists, and has been beneficial to myself and the communities I've worked with, is to build up a connection in one or two places. We become partners. We build up a measure of trust, and we work well together.

Anonymous-1 (January 19, 2016), who has spent their entire career working in CRM companies of significantly different sizes, shared these thoughts:

[In the past, in our work for large CRM companies], we parachute in and out of communities. And we work with people, but we're not actually attached to the community. We don't get to know the community in substantial ways, we don't get to know the people, because we're just in-and-out of there all the time. And we really wanted that to be different. We wanted to get to know the communities we worked with. Not to be part, necessarily, of the First Nations community, but part of the broader community.

In consulting, we are so localized in where we're looking, and that's I think one of the biggest barriers. Because you need to look at the regional land use, and particularly if you're incorporating TK, that's where it becomes really important. So if you're finding a site in a cut block or on a pipeline that's sort of separated from its overall context, versus if you're going out and looking for sites in this region—"why are sites going to be in one place in this region versus some other places?" and "how did people utilize this landscape? What did that look like? And how has it changed over time?' that's very much a broader lens. So a lot of consulting is very narrow.

While the importance of regional specialization is recognized by the professional governance of British Columbian archaeology[39], it appears that this is based primarily on value placed on familiarity with broadly-regional differences in material culture and culture history (e.g., being able to identify and understand a coastal shell midden vs. an interior pit house feature), not based on value placed on fostering community-specific professional relationships. However, as much of the discussion within this and the previous chapter has noted, TK is of substantial interpretive value to archaeology. If, as every respondent said, long-term relationships with First Nations communities are integral to effectively and ethically accessing TK, then a professional climate in which long-term relationships are valued must also be beneficial to archaeological interpretation.

Theme 3. TK Incorporation in BC: Ephemerality

All respondents, when speaking about the benefits of incorporating TK into archaeological interpretation, referred to TK's ability to describe the aspects of cultural activity archaeology most struggles to access—those that leave scant if any material

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[39] In order to hold a site permit, an archaeologist must, among other things, have approximately 60 working days of excavation experience (including approximately 20 days in a supervisory role) in whichever of the three regions of the province that excavation is located (BC Ministry of Forests, Lands and Natural Resource Operations 2017).

trace[40]. These ephemeral aspects may be ideational (cosmological, sacred, narrative, philosophical) but they may also quotidian. It is particularly in the latter sense that respondents' conversations paralleled the examples brought forth in my background literature review. The British Columbia-based examples provided in Chapter 2 illustrate the ways in which TK enriches an historical understanding of Indigenous lifeways, including helping to identify practices that leave subtle marks on the landscape (e.g., many horticulture and mariculture activities) to providing insight into the cultural saliency and cosmological significance of First Nations' relationships with other species and beings. As Echo-Hawk (2000:285) stated: while archaeologists are fond of talking anthropomorphically about artifacts "speaking" to them from and about another time, it is actually in oral traditions that we can hear at least echoes of the actual voices of past peoples.

In Chapter 2, I paraphrase Deur's (2010) argument that archaeology's inability to recognize (and validate/confirm) much of the ethnobiological history of First Nations has had practical and often deleterious effects on First Nations communities and their traditions. So long as archaeology plays a role in the identification and protection of spaces in British Columbia, the discipline's ability to identify and describe ethnobiological landscapes will be important to the preservation of those landscapes as well as the contemporary application of those traditional practices (Lepofsky et al. 2017). This work is being done by many of the respondents in my study, for example: Dana Lepofsky's study of Pacific herring spawn habitats (McKechnie et al. 2013) and clam gardens (Lepofsky and Caldwell 2013); Darcy Mathews' cultural contextualization and dating of camas beds (Mathews 2006, 2014), and his study of plant and shellfish cultivation on the Chatham Islands (Darcy Mathews, February 1, 2016); and Jenny Cohen's study of fish weirs as a species relationship between forest (construction material) and ocean (fish catch) (Jenny Cohen, April 8, 2016). In each of these cases and others, archaeological knowledge and traditional knowledge are combined in order both to produce a better understanding of the past and to facilitate and sustain traditional lifeways into the future, through conservation and education.

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[40] See Chapter 4, Question 6a.

As Michael Klassen's (March 15, 2016) anecdote illustrates, historical understanding informed by TK can refocus heritage conservation on areas of broader cultural rather than traditionally-archaeological significance:

> We identified all of these archaeological sites, which I felt were roasting pits. And when we approached the community, the elders, and the chief and council about what we had found, patting ourselves on the back about how great it was that we had found all this stuff and preserved and protected it from logging, they immediately questioned us: "why are you so interested in nothing but holes in the ground?" As they pointed out—"what were those holes used for?" They were used for roasting root crops. "Well, where did those roots come from?" They came from this hillside. "Why are you not protecting that hillside?" Well, it's not an archaeological site. But they're saying: "that archaeological site wouldn't exist if it weren't for that hillside." That's the important thing that needs to be protected, more than the "archaeological sites." So that was the first time that I really saw a different perspective on cultural heritage.

Natasha Lyons (December 21, 2015) also spoke to a need to reconsider how heritage sites are understood and valued, perhaps as dynamic rather than static phenomena:

> I think that right now we have a real job to say: OK, [clam gardens] are challenging us in many ways in terms of how we understand the world, and one of those is that archaeology sites are not always static, and many Nations that talk about these sites as not even archaeology, but being traditional use sites. But I feel like within the archaeology community there's a real desire to try to classify them as archaeological. Why is there a rush to do that? I think if we stopped to listen to TK more, then we'd start questioning why that is. And I think once we do that then we can move in some interesting directions, where we really are taking a reconciliatory approach as opposed to trying to fit things in to established frameworks and policies.

Other respondents spoke of focusing on using TK to enrich their understanding, as archaeologists, of more ideational aspects of the Indigenous past. One interesting manifestation of this, illustrated by three examples, is the study of geological features. Brenda Gould (March 27, 2016) described her growing understanding of Coyote Rocks in the Similkameen valley. These are, in geological terms, glacial eratics, remarkably large, worn boulders that have settled in the valley bottom. They are culturally significant, each associated with a specific story. Rudy Reimer/Yumks (April 7, 2016) has long been interested in what he calls "ephemeral material culture," such as ceremonial and transformation sites—phenomena that are difficult if not impossible to explicate using the archaeological material record alone. He recently delivered a paper

(Reimer/Yumks 2017) examining a number of Coast Salish landscape features, including large mineral ribbons culturally interpreted and mythologized as serpents. Chris Arnett (March 3, 2016) spoke to me about experiences with what seemed to be natural geological formations—halibut-shaped, petroglyph-like formations in Saltspring Island's Long Harbour that appeared to the community to symbolically illustrate local fishing practices.

Many of these objects—Coyote Rocks, sea serpents, halibut petroglyphs—appear to confound the archaeological approach, which is to study the physical remains of past human activity. These objects appear, by the standards of Western science, to be "natural" formations, but are clearly material in nature and also of cultural import. They are, in that sense, "material culture," though not physically evident as culturally modified in a way that archaeological method could identify on its own, without the aid of TK (Lepofsky et al. 2017). Chris Arnett (March 3, 2016) argued, in a similar vein, for an expansion of archaeological epistemology:

> I'm a firm believer in the power of archaeology, the importance of it, the technical expertise of it, the material site formation process, which is a standard part of all archaeology, and how a site occurs—processes that are natural and cultural. But I also argue that there's a non-material site formation process, which is the stories, the intangibles, soundscapes, and place names, etc. And that's part of the site formation process that archaeologists have a hard time dealing with. But it's essential to understanding material culture.

Brian Pegg (February 2, 2016) provided a summarizing statement:

> Our focus [as archaeologists] has always been empirical. And that's not a bad thing; it's a good thing. But if you have your focus on empirical evidence and you go "ok, that means that we're not going to pay attention to anything intangible" what you're actually doing there is what I think is bad science. Because you're ignoring a large amount of evidence—all this intangible stuff that we need to incorporate. We've got to make our archaeology a lot more about an insider perspective than a hard-line outsider scientific perspective.

As explored in Chapter 4, reorienting British Columbian archaeology in the way that Chris Arnett, Brian Pegg, and others described will require not only individual and discipline-wide creativity and flexibility, but also institutional support (likely in the form of alterations to the province's Heritage Conservation Act) that places more value and

confers more protection on cultural sites evidenced by TK, as well as by archaeological investigation.

Theme 4. Socio-political Implications: Valuing and Protecting TK

Many socio-political aspects of archaeology's engagement with TK and TK holders are explored in the previous chapter, well-summarized by interview respondents. They include colonial context, professional guidelines, Indigenous knowledge-sharing protocols, intellectual property protection, and power balance and reciprocity between archaeologists and First Nations. These illustrate the importance of considering the contemporary social implications of archaeology as practiced in British Columbia, as it relates to TK.

If archaeology was "just research," an attempt to cobble together history in some abstracted, purely positivist sense, free from social pressures or consequence, then considering the epistemological implications of incorporating TK into this enterprise could be confined to the realm of ontology and historiographical philosophy. However, archaeology is always practiced in a social context, and in British Columbia (as in settler-nation contexts more broadly) it is administered by a colonial government and, increasingly, initiated and funded by commercial interests. Archaeological work produces information that affects land-use, from localized heritage site protection or commercial development facilitation to large-scale First Nations rights and title land claims, and also informs public perception of the communities whose history it investigates.

While I believe it to be broadly true, the ideas and experiences represented in interview responses of this thesis support the notion that in British Columbian archaeology, epistemology is a socially contingent construct. Respondents described how, in many ways, the degree to which they could incorporate Indigenous ways of knowing the world (and the past) into archaeological interpretation were contingent on societal, circumstantial factors: a) how their own cultural background limited their ability to understand other cultures (Q4b); b) how endeavouring to incorporate TK into their practice was usually internally motivated, but also externally motivated through factors such as heritage legislation, professional standards, peer support, and broader social valuations of First Nations knowledge (Q5a); c) how intellectual property concerns make

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sharing and asserting TK outside of First Nations communities a potentially risky endeavour (Q5b); d) how archaeological- and TK-based interpretations of First Nations history have historically (and still presently) held uneven social, legal, and epistemological power; and e) how, fundamentally, the ways that archaeology makes meaning—its epistemology—impacts and is impacted by social context (Q5c and Q6a).

Respondents also spoke to shifts in these socio-political dynamics[41]: First Nations increasingly guiding heritage conservation efforts, employing their own archaeologists, developing their own archaeological and land-development permitting systems, resuming land-use practices informed by TK, asserting the legal power of their oral traditions, and increasingly working to protect their IP through increasing assertion of rights, new approaches, and collaboration between and outside of First Nations. These can all be characterized as pragmatic developments, but in the sense that they all also affect how history in this province is constructed and validated, each development also has clear epistemological implications.

Theme 5. Epistemology: Evidentiary Reliability, Knowledge Hybridity?

There are five important themes raised first in the literature referenced in Chapter 2 and directly responded to in the interviews of Chapter 4. These are: 1) how concerned archaeologists should be with the nature of traditional knowledge-transmission—how accurately and comprehensively knowledge of the past is passed down within Indigenous communities; 2) whether epistemological difference between archaeological and traditional knowledge should be characterized as a difference between scientific and non-scientific approaches to history; 3) how differing levels of congruity between archaeological and TK-based interpretations of the past should be handled; 4) the degree to which cultural bias prevents archaeologists from being able to understand or incorporate TK; and 5) whether some level of epistemological hybridity between archaeological and Indigenous knowledge systems is possible or even desirable.

Much of this discussion surrounding archaeology's "use" of TK, as expressed in the literature, centred on the evidentiary reliability of TK. Most simplistically, this

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[41] Chapter 4, Question 4c and beyond

concerns the ability of archaeologists to determine what TK is historically factual and what is not. At a level of greater nuance, it is a question of how (or whether) archaeologists can use the interpretive tools at their disposal to integrate insights offered by TK into the epistemological framework established within archaeology, and produce an accurate historical account.

I broadly characterize my interview respondents as not sharing this concern, at least not in a way that amounted to a critique of the reliability of TK in general. Respondents described how and why they have developed approaches for considering TK somewhat obliquely or circumstantially—not judging it directly for a fundamental veracity (at least not a community-wide level; respondents did speak to the need to establish credibility of individual knowledge holders), but indirectly for its suitability to synergize with archaeological interpretation. These approaches begin by educating oneself on the culture history and contemporary culture of an area, in order to: better inform questions posted to TK holders; know whether the TK that is shared correlates with what is already known or needs to be investigated as new information; to be aware of the phenomenon of "read-back"; come to know the community one works within— know who is trusted within their own community as a specialist or keeper of TK; and understand how local knowledge-sharing protocols may restrict access to some aspects of TK.

Respondents considered the particular nature of TK-transmission among British Columbian First Nations. The notion that TK loses fidelity and accuracy as it relates to events of greater antiquity was shared by respondents, but they argued that this calls for a different kind of hermeneutic approach, rather than a dismissal of the TK. TK pertaining to events of greater antiquity may contain less historical detail and be more likely to be encoded in symbolic language, and so require a kind of interpretive skill that archaeologists tend not to be well trained for: reading narrative and working with metaphor (Joanne Hammond, May 10, 2016; Nicole Smith, April 8, 2016). Some spoke of the need to listen to stories in the moment, record them, and then return to them later, perhaps many times or after gaining more knowledge of the local culture history, in order to be able to begin to understand it. Over time, respondents noted, TK does tend to become encoded in narrative, perhaps becoming abstracted, and teasing out the historical significance can be challenging, particularly for those lacking the associated cultural background.

Respondents also spoke to the loss of TK over time, particularly the repercussions of colonialism that have strained and disrupted the inter-generational transmission of TK. As elders pass, languages languish, "archaeological sites" are destroyed, and the capacities of First Nations communities to continue traditional lifeway practices are compromised by social and environmental change, the passing of TK to new generations is compromised. No one, respondents reported, is more aware of this than First Nations people themselves.

The question raised in some background literature of whether the divide between archaeological knowledge and traditional knowledge was primarily a divide between science and not-science was essentially a non-starter in my interviews. No respondent firmly asserted an identity of "scientist" (which is not to say that none do); those that did speak to the scientific nature of the discipline did so to temper the notion, using phrases such as "soft science" or "social science." They spoke about aspects of their methodology as scientific, but did not use the adjective to broadly define their practice. Nor did any respondent indicate that the presumed-scientific nature of archaeology should preclude the incorporation of TK—knowledge not primarily derived from a Western scientific method. This was simply not a meaningful divide to those I interviewed.

Respondents spoke instead of the highly cultivated nature of TK—the great time depth of Indigenous knowledge, over which ideas and observations have been tested and refined. Western science is partially characterized by its openness to change, and to its truths being questioned. Respondents characterized TK similarly. They spoke of Indigenous communities' active interest in the level of historical detail archaeology could contribute to TK-based knowledge of the past, and their willingness to integrate new information into their own knowledge bases. In these ways respondents described Indigenous knowledge as empirical in nature, if perhaps more inductive than deductively based. *Science*, as a foundational concept, did not appear to be a basis for incompatibility between archaeology and TK. Michael Klassen (March 15, 2016) stated:

> For those that still cling on to processual archaeology, [TK] may seem irrelevant. And [in some quarters] the debate continues as to whether and how we, in a science-based profession, use TK. But as far as I'm concerned, that debate has been ended and answered. There's been enough people that have shown how you can use TK responsibly without

corrupting science-based interpretations. It doesn't negate them, it enriches them.

I did press respondents on whether, and how, they had dealt with incidents where their archaeological interpretations appeared to conflict with those offered by TK holders. As noted in Chapter 4, few could recall notable occasions, and those that did tended to resolve these situations by positing their archaeological interpretations in parallel with those of dissenting knowledge holders. Most respondents also pointed out the inherent limits of the archaeological method, specifically its fundamental inability to disprove TK-based historical accounts. Here, my sense is that respondents found a comfortable parallel: individual Indigenous communities' knowledge of their own past is bound to be incomplete (for the aforementioned colonial reasons and also the world-wide phenomenon that cultures record their own history selectively and with bias), but every archaeological interpretation is partial and biased too, limited and provisional in many senses not least of which is the incompleteness of the archaeological record; incompleteness and provisionality are not grounds to discount any knowledge system.

Martindale and Nicholas (2014:458) articulate their ambition (as archaeologists) as to be able to "say reasonable things about the past without the burden of being singularly authoritative," which is not to say that they wish to be alleviated of the burden of producing verifiable, rigorous results, only that the knowledge of the past that archaeologists produce will only ever be partial. That incompleteness leaves much room for TK to make meaningful contributions to a broader understanding of the past. This sentiment is echoed by Colwell-Chanthaphonh (2013:286), who writes (contra Stump 2013), "[the authors] recommend an approach of "critical multivocality," to build a participatory form of research that provides scholars the opportunity to analytically consider the maximum range of viewpoints and values that exist for the historical record."

In Chapter 2, I invoked Stump's (2013) warning that archaeologists should avoid "hybridizing archaeology," being careful to only extract data from TK, not attempt to incorporate epistemology. That caution against hybridization, as Bruchac (2014) pointed out, can be attractive not just to archaeologists but also to Indigenous communities protective of the autonomy of their own knowledge systems. For archaeologists, the prospect of incorporating a different cultural epistemology into one's own is far more complicated and potentially threatening than studying it from an intellectual remove.

Most respondents described the value of gaining a social-anthropological understanding of the worldviews of the First Nation(s) whose past(s) they studied. This allowed them to better interpret received TK in cultural context, endeavouring to avoid the practice Julie Cruickshank (1994) critiqued, namely the use of anthropological and ethnographic approaches to oral knowledge as disembodied parcels of information, collected and analyzed (often inaccurately) as discrete pieces of data. Throughout the interviews, respondents stressed the importance of context in order to properly understand TK, how the often holistic nature of Indigenous knowledge systems and practices mean examining material culture in isolation from that cultural context impoverishes any interpretation.

Many respondents also described how incorporating Indigenous epistemology into archaeology may also be beneficial in British Columbia. This recalls Strang's (2006) suggestion that anthropology is richer for its serious consideration of multiple worldviews, as well as this thesis' epigraph: Wade Davis' declaration (2009) that the most important insight of anthropology is that there are multiple ways of understanding the world. The degree to which an archaeologist will be inclined to endeavour toward a more emic (or internalist) way of conducting archaeological research—one that treats the epistemology of TK as not only another cultural facet to study, but something to inform and affect the worldview of archaeologist practicing in a First Nations context—depends on the individual.

This is a tension that many respondents described: between coming, as archaeologists, to study a living culture's history, benefitting in that study from an understanding of that culture's worldview, and taking on this worldview as a direct way of understanding the past. Darcy Mathews (February 1, 2016) described how learning to perceive landscape as some Indigenous community members did—as (still) populated by ancestors—was integral to the insights he gained about the material remains of mortuary rock cairns, but that he still retains a secular worldview; Andrew Martindale (November 25, 2015) questions whether archaeology (perhaps particularly in British Columbia) will need to move away from some of its firmly-rooted epistemological orthodoxies, such as notions of causality or free will, in order to make room for Indigenous voices and worldviews. He asks, "why can't the past be an intervention of spirituality on the landscape? Why must we contest that? And what would happen if we didn't contest it?"

Rudy Reimer/Yumks' (April 7, 2016) research examines correlations between oral (including what anthropologists may characterize as mythological) narratives and archaeological evidence, but renders both as fact, preferring to present the "two" tellings in concert, highlighting synergies but also allowing each its epistemological autonomy. Chelsey Geralda Armstrong offered this concluding thought:

> I've had to retrain myself. Not that anyone can ever be "decolonized", but because of incorporating TK I've had to start a process of decolonizing my own thoughts about archaeology, my own thoughts about what knowledge is. Because if someone says, "well I know this mountain, it used to be on top of that mountain but it jumped off when it was a kid," I'll look at that and think, "well that's a cute story, but how can this be translated to Western knowledge?" Why do I have to do that? Why am I telling myself that it has to be filtered through Western epistemology or ways of knowing? So I think by incorporating TK it's more of a process than an outcome, where you're learning to see the world, see other people, in a less categorically objective way. And I think that's a good thing, for personal growth, for community growth.

There is a sizeable difference between recognizing the importance of another culture's traditional knowledge, studying that culture's epistemological frameworks as part of an endeavour to better understand their TK, and taking seriously and even internalizing the notion that one's way of knowing the world is not the only model of reality. As discussed in the previous chapter, for archaeologists, this seems to present a challenging question: *To what degree should archaeological epistemology adopt aspects of First Nations' epistemologies?* For now, in British Columbia, the answer to that question falls somewhere between the personal approaches of individual archaeologists (see Kelly 1998) and the provisions of British Columbia Heritage Conservation Act, which preferences archaeological interpretation of material culture over heritage defined by TK.

It would seem that TK must be approached on its own terms. This is not only an ethical imperative, but an epistemological one. If researchers do not take the time to understand the complicated ways that traditional knowledge is encoded, often through narrative structures, they risk either being led astray in their search for historical facts, or rejecting oral histories outright when aspects of those historical narratives do not match historical reconstructions derived from archaeological/material evidence.

Martindale and Nicholas (2014) point out that archaeology has its own "internalist understandings," particularly in the form of its many universalist explanatory concepts for

human behaviour (for example that it is driven primarily by need) and often unarticulated priorities, such as the search for factual narratives of causation. As such, the knowledge embodied in TK is often used in a piecemeal manner, with pieces of information rested from their cultural context based on their perceived in-the-moment value (Miller 2011:80-81), and, as Green (2008:147) argues, aspects inherent to Indigenous forms of knowledge-construction (for example the spiritual) problematically stripped in the process:

> What proponents of the Indigenous Knowledge movement are calling for is the recognition of different ways of organising knowledge precisely because scientific knowledge practices discard so much of what they know to be useful. To reduce 'IK' to content alone, as so many scientists do when they collect local knowledge and fit it to existing scientific templates, is to do a disservice to the complexity and richness of knowledge traditions currently described as "Indigenous".

Like so many other aspects of archaeology, approaches to TK will have to be in large part local and contextual. This is something of a mantra for postprocessual or social approaches to archaeology, but in regard to TK it is entirely true. There is not one traditional knowledge, nor a single set of ways that TK differs from Western or archaeological science. Nor can traditional knowledge systems be understood in sweeping pan-continent generalizations (Green 2008).

Prospective Research Avenues

My investigation into British Columbian archaeology's approach to TK was broad, attempting to explore practical, social, and epistemological issues, but also regionally narrow. As a result not all aspects of the archaeology-TK dynamic—particularly global social and theoretical concerns—could be fully explored in this thesis. Some, for example the headier philosophical underpinnings of Indigenous epistemologies, or the history of archaeologists' transition from a reliance on ethnographies to direct engagement with Indigenous knowledge holders, are adjacent to but outside the province of my research. Others are more directly raised by the results of my research, and while a fulsome treatment of each is beyond the scope of this thesis, they bear noting here and potentially more dedicated consideration at a later time. Below, I speak to four of these aspects.

TK transmission, change over time

How is TK transmitted, and how does it change over time? Cruikshank (1994) expands on this question when asking: "How […] are memories translated across generations during periods of political repression? Is transmission of memory effected differently by men and by women? How is memory reconstructed when the political filters shift […] is individual memory connected with collective memory?" (p. 409). This is partially what Jan Vansina (1995) attempted to diagram when looking at how historical events are encoded and selectively preserved and transmitted in oral traditions. A related issue is that of the "corruption" of TK by modern influences, wherein transmission of TK among Indigenous peoples is affected or interrupted by colonial incursions, making TK susceptible to inter-generational loss of knowledge and potentially "read-back" (see Question 4b; also Miller 2011:54-56).

In the context of my research I am particularly interested in how this phenomenon is translated into archaeological application, specifically: *How does/should an understanding of how TK is transmitted affect how it is incorporated into archaeological interpretation? And, how does/should an archaeologist's approach to interpreting TK differ depending on the antiquity of the event/behaviour it describes?*[42] As mentioned, some of my respondents did speak to ways in which they valuated the TK they received (e.g., corroboration between multiple knowledge holders, familiarity with recorded ethnographies, etc), and took a different hermeneutic approach to TK more heavily encoded in narrative and symbolic language (as TK of greater antiquity tends to be). But less well explored is how archaeologists' own understandings and conceptualizations of the ways in which TK is preserved and passed through time affect their specific approach to working with it. For example, how, specifically, is TK that describes geologic events hundreds or thousands of years old approached differently than TK that describes a history of uninterrupted occupancy, to the present day, of a given area? What are the methodological adaptions to working with TK of differing transmission histories?

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[42] Adding the latter question is the only amendment I allowed myself to make to my interview framework mid-way through my interview process, but its late inclusion meant that it was only posed to roughly half my respondents.

Approaches to TK by archaeological sub-disciplines

Does the sub-specialization of an archaeological researcher affect how they approach TK? For example, do archaeobotanists value or gather TK differently than do archaeologists studying population migrations*?* Is, in this example, the latter more interested in a chronological accuracy, the timing of certain major events, and the former more concerned with behaviours that, while historically and geographically situated, are less preoccupied with chronological and site-specific fidelity?

This is a nascent query, and not one that I have seen explicitly explored in academic literature. However, in reviewing the use of TK (including ethnography) in British Columbian archaeology, I perceived a meaningful difference in the ways in which archaeologists who are primarily attempting to reconstruct detailed culture histories approach TK to those that are more interested in investigating broader behavioural phenomena. This latter group seems most populated, in this province, by those conducting archaeological research informed by ethnobiology. This supposition would, in retrospect, have been interesting to explore with my interview respondents, whose research interests varied widely. Does sub-disciplinary specialization affect how a researcher approaches TK—their expectations of chronological accuracy, for detailed renderings of cultural change, or for insight into ideational aspects of the past?

Legislation lag

The issue of heritage legislation lagging behind advances made in the field and changes in societal values is not specific to British Columbia (see, e.g., [U.S.A:] Chari and Lavallee 2013; McKeown 2013; [Australia:] Power 1996; Prangnell et al. 2010; Ross et al. 2010; [Latin America:] Endere 2014; Tantaleán 2014; [Canada]: Bell and Napoleon 2008). Examining British Columbian Heritage legislation and the ways it has historically responded to challenges from the archaeological discipline and First Nations is beyond the scope of this thesis (see Budhwa 2005; Hammond 2009; and Klassen 2013; Lawson 1997; and Schaepe 2007 for studies of both this issue and how First Nations have responded, including with their own heritage management strategies), however the theme of legislative lag/impediments recurred throughout the interviews, suggesting a growing tension and disconnect between the attempts of British Columbian archaeologists to value and give voice to TK as non-material but valid historical

evidence, and push-back against their efforts to formally incorporate TK it into their legislatively mandated field practice and report-writing.

The Heritage Conservation Act, brought into British Columbian law in 1996, is now over twenty years old. While this is not unusually archaic as far as legislation goes, it is within those twenty years that the disciplinary developments of "Indigenous archaeology" (Watkins 2000), "multivocality" (Hodder 1997), "community-based archaeology" (Atalay 2012), and "internalist archaeology" (Yellowhorn 2006) have all taken place. In British Columbia, those two decades also saw the two most impactful (in terms of Crown recognition of the authority of TK) legal decisions delivered (*Delgamuuk'w v. B.C.* [1997] and *Tsilhqot'in Nation v. B.C.* [2014]), a marked increase in First Nation involvement in archaeology and heritage conservation practices (Klassen 2013), and, based on my literature review, a significant growth in archaeological interest in directly gathering TK and allowing TK-informed community interests inform the direction of archaeological research. These developments have all taken place outside the direction of the HCA; Hammond (2009:51) summarizes this dynamic:

> Attempts by First Nations to gain access to and control of their heritage are being made at the provincial level through management agreements and treaties, but also at the local level between band governments and individual researchers, organizations, and private enterprises. In Canada, it has been these kinds of unscripted localized efforts combined with the evolution of professional ethics that have made the biggest difference in changing the Indigenous involvement in heritage.

While my interview respondents spoke nearly unanimously against the notion that TK-incorporation should be formally required or directed by legislation, they spoke equally forcefully of their frustration that the HCA not only increasingly did not reflect the evolving nature of archaeology's relationship with First Nations communities and to TK, but that the bureaucratic enforcement of the HCA actively repelled their efforts to practice archaeology in a way that appropriately responds to the aforementioned social changes and developments in archaeology's broader ethical and theoretical frameworks. Judging, anecdotally, from the interview conversations, there is a pressing need for legislative reconsideration of foundational underpinnings, such as: what constitutes protectable heritage, and what kinds of evidence are to be documented and considered? In British Columbian compliance-based archaeology, this set of issues is further complicated by the degree to which archaeological investigation takes place as part of

larger environmental protection studies (with their own legislation) and TK studies, often carried out as part of the same project and by the same umbrella company, but not necessarily with direct involvement by archaeologists.

Insider/outsider knowledge

The concept of insider/outsider knowledge—essentially the divide between a community implicated by research and the researcher arriving from outside that community—has been utilized for some time in Canadian archaeology (for an early example: Lockhart 1982). This divide is often many of: social, economic, political, ethnic, and religious. I see the concept of insider/outsider manifesting in two ways in the interviews I conducted: in culturally-protected knowledge-sharing protocols, and in the tensions between Indigenous and archaeological epistemology (including concepts of emic and etic knowledge).

The divide between "insider" and "outsider" is increasingly recognized as not clearly dichotomous, but existing as a dynamic, dialectic relationship, wherein insider-outsider status shifts dependent on context (Ergun and Erdemir 2009; Merriam et al. 2001). As previously detailed, many respondents spoke to how long-term relationships with Indigenous communities slowly afforded them a measure of "inside-ness"; archaeologists who work directly with or for First Nations, serving community interests, are at least from a socio-political vantage partially "insiders" within communities. Additionally, five of my 22 interview respondents reported First Nations ancestry (though a minority of those self-identified as an "Indigenous archaeologist"). Their personal experiences varied, but they provided unique insight into the experience of feeling and being perceived by many of the First Nations communities in which they have worked as outsiders of a sort—archaeologists first, Indigenous second—with resulting social and epistemological implications for their practice (for example, in regard to knowledge-sharing protocols[43]). They reported often being positioned at least partially on the outside, either because their Indigenous heritage and affiliation with one First Nations community did not afford them insider status with others, or because their role as

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[43] See Chapter 4, Question 5b.

archaeologists set them apart, socially and in the ways they think and speak about the past.

A researcher's status as (even partial) "outsider" may limit their access to TK, in a literal, data-gathering sense, but also their ability to understand TK, and their interest/willingness to seriously consider or even incorporate aspects of Indigenous epistemological approaches to historiography. While respondents spoke to all of these issues, additional research may provide a better understanding how current approaches to archaeological research in British Columbia affect the insider-outsider dialectic and how that affects archaeological use of TK, and to what degree well-intentioned efforts amongst archaeologists to blur this insider/outsider divide may also inadvertently mask persistent social tensions and power imbalances among First Nations, government, and industry (Caine et al. 2007).

Summary

In this chapter five themes emerging from my interview results were identified and explored:

1) *The ways in which an archaeologist's background potentially influences their approach to TK*: respondents spoke of the importance of an anthropological education, the ways that working with TK differed depending on what region of the province they worked, and how different professional specialization (e.g. academic, CRM, employment by First Nations) affects the degree to which they can incorporate TK into their work, as a result of differences in funding, client interest, project length, and First Nations relations;

2) *The importance for individual archaeologists to build relationships with First Nations communities:* long-term relationships, respondents all emphasized, were integral to building the trust required to engender TK-sharing, to best understand TK in its specific cultural context, to learn and respect local knowledge-sharing protocols, and to ensure value is returned to a community—in the form of knowledge, capacity-building, and/or the productive stability of long-term research partnerships;

3) *The vital role TK plays in recording the more "ephemeral" aspects of the past*: those behaviours that leave less material evidence for archaeology to directly examine. These range from quotidian activities that produce scant physical

evidene (or physical evidence that largely does not preserve taphonomically) to ideational aspects of culture, which archaeology has always found difficult to access;

4) *The degree to which even the apparently more theoretical concerns of TK use in archaeology are attended by social considerations*: how cultural background and professional experiences affect an archaeologist's approach to TK, and how colonial histories, perceptions of archaeology's social role, and intellectual property concerns affect indigenous communities' propensity to share their TK.

5) *The spectrum between investigating Indigenous epistemologies at an anthropological remove, and integrating them within archaeological (or an archaeologist's own) epistemology*: all respondents saw value in the former, as both a valuable understanding gleaned from working with TK, as well as a necessary interpretive tool for understanding TK. Some suggested that archaeologists should more seriously consider the latter, pointing out that anthropology has a long history of hybridizing its epistemology, and that allowing archaeological epistemology to become more porous may be one step in a decolonization of the discipline in British Columbia.

Additionally, I present four topics for future investigation: compelling issues raised by my interview respondents that could not be fully explored in the scope of this research project: 1) how archaeologists understand the nature of TK-transmission (within a First Nations culture), and how that understanding affects how archaeologists approach TK of varying antiquity; 2) whether an archaeologist's sub-disciplinary specialization differently affects how they approach TK, what value they place in TK, or what they expect to glean from it; 3) how a very common sentiment among respondents—that the approaches to accessing and incorporating TK into their archaeological practice was not only not matched but in fact hampered by outdated provincial heritage legislation (and its enforcement)—could be redressed; and 4) how the concept of the insider/outsider positioning of a researcher is understood by archaeological researchers in British Columbia—the degree to which becoming more involved and more trusted by an Indigenous community affords both more access to (and perhaps emic understanding of) TK, and the degree to which gaining "insider" status is possible or desirable.

Chapter 6.

Conclusions

I began this research with the belief that due to recent social and legal developments affecting how British Columbian First Nations heritage is valued and managed, as well as changes in how British Columbian archaeologists practiced (sometimes directly with and for First Nations communities, and increasingly with an interest in having Indigenous knowledge inform research goals and methods), there was a growing need to examine how archaeologists in this province were approaching TK. I sought to explore questions such as: how does archaeological research benefit from considering TK?; how can/should archaeology determine the evidentiary reliability or archaeological applicability of TK?; does the act of incorporating TK affect archaeology's epistemological framework, or affect the discipline's self-conception/validity as a scientific practice?; and, how can archaeologists ethically work with TK and TK holders, particularly considering the colonial history of uneven power relations between archaeologists and Indigenous peoples, as well as emerging intellectual property issues?

As described in Chapters 2 and 3, the impetus behind grounding this research in interviews with archaeologists was twofold. The first was my knowledge that in British Columbia, most archaeologists were (to varying degrees) working with First Nations communities and colleagues and so were privy to and likely incorporating some types of Indigenous traditional knowledge in their archaeological practice. As a result they were constantly developing techniques—methodological, ethical, and epistemological—to make that inter-cultural[44] knowledge sharing work. The second reason was my

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[44] As evidenced in the interviews and discussed in Chapter 5, even for archaeologists with First Nations ancestry, operating as a professional in this discipline while working with First Nations history is still a kind of "cross-cultural" endeavour.

perception that these techniques as well as ideas about the role of TK in legislated heritage conservation, were not being as fully and productively shared within the province's archaeological community as they could be (certainly little has been published in British Columbia with the primary focus of archaeologists' methodological, social, and interpretational approach to TK).

This latter point was not intended as a condemnation of professional cooperation in this province, but is an observation likely owing to three interrelated characteristics of British Columbian archaeology. First, British Columbia has much geographical diversity, and also a great diversity of First Nations cultures. Archaeologists operate in every area of this province, mostly in CRM capacities and often in geographical isolation from all but their closest colleagues. Although estimating the total number of archaeologists operating in British Columbia is problematic (see Chapter 3), even a conservative estimate suggests that only a fraction of BC archaeologists regularly share their knowledge in formal venues—through publication or presentation in professional and academic journals and conferences. Second, the "voices" of non-academics are less publicly accessible, as publishing and presenting research confers far more benefit to those archaeologists who are employed as academics, and archaeologists working in CRM primarily produce reporting that is not publicly accessible. Finally, and admittedly most anecdotally, it is my observation that archaeologists in this province rarely have the time and space to consider and articulate their own epistemological frameworks[45]. This sentiment was expressed implicitly by nearly all interview respondents, and two spoke to it directly:

> I'd like to say thank you for the opportunity to think about and articulate all this. In our practice, we're often just doing things, sort of making our way through them. And I think this is a really important [topic] because we need to be thinking critically about the kind of archaeology we're doing, the implications of it, and the value we place upon knowledge in these communities. (Darcy Mathews, February 1, 2016)

> It's a fascinating topic; it can go in so many directions. I'm surprised nobody's done this topic. It's skirted around, people discuss aspects of it, but not [as a primary focus]. (Peter Merchant, April 1, 2016)

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[45] This is certainly not required by the permitting and reporting structure of compliance archaeology in British Columbia, wherein the recording of methods and results are prioritized.

By gathering the thoughts and experiences of the archaeologists who spoke with me, my aim has been to produce a document that shares a largely un-articulated but rich and varied knowledge. As summarized in Chapter 4 (particularly Question 6e), there is a divide among many respondents, between those skeptical as to whether broader archaeological theory or general guidelines can have much utility in shaping their own localized, idiosyncratic approaches to working with TK, and those who believe theory and applied examples from outside of British Columbia can prepare or pre-adapt them to future challenges regarding TK. However, respondents did by and large collectively express aspirations toward developing more sophisticated methods, and more intra-regional support (from the government, employers, and the public) through greater recognition of the important role TK can and should play in British Columbian archaeology.

This research is an attempt, then, to contribute to a province-wide conversation regarding how archaeologists might best work with TK, potentially informing individual practice as well as considerations of heritage management strategies and legislation. As many respondents voiced, the ways in which archaeology in British Columbia is developing its relationship to Indigenous communities and Indigenous knowledge are shifting in response to a changing social landscape where TK appears to be an increasingly recognized and respected source of knowledge about the past—within archaeology, the courts, and society at large. In this sense, how archaeologists in British Columbia meet the challenges of working cross-culturally, finding ways in which archaeological knowledge can synergize or be conversant with traditional knowledge, could be instructive beyond provincial borders, particularly to other contexts where archaeology operates as part of a dominant colonial apparatus.

Archaeology and Traditional Knowledge: Future Opportunities and Challenges

Ronald Mason (2000:264) wrote that "oral traditions are more often than not road blocks than bridges to archaeologists aspiring to know 'what happened in history.'" It is impossible, looking across the gamut of thoughts and experiences shared by my interview respondents, to find any that even mildly resonate with Mason's argument. In fact, at times, as I re-listened to the interviews and re-read the transcripts, I wondered if the answer to one of the most basic questions underlying my research—*what is TK's*

utility in BC archaeology?—was too obvious to be worth grappling with: as archaeologists, we are interested the ways people lived in the past, how they related to each other, to the landscape, to other species, and how they understood the world. In British Columbia we have the remarkable advantage of living amongst many First Nations with deep cultural and geographic continuity, who have kept the knowledge of their pasts for millennia. So, of course—why would archaeologists attempt to practice archaeology without recourse to available TK? Every respondent, at some point in their interview, distilled the situation in British Columbia in much the same way: we are very fortunate, in this province, to have such rich and various Indigenous knowledge traditions; to conduct archaeology without using TK as a line of evidence is to practice archaeology unscientifically and un-rigorously—to wilfully ignore a known, powerful source of information.

Of course this sentiment is only the starting point for TK-informed archaeological practice, as each respondent has articulated and illustrated. Social and epistemological factors in British Columbia complicate the practice of TK incorporation. As long as archaeologists in this province are primarily employed in service of commercial development, to comply with provincial legislation, and largely are of non-Indigenous heritage, archaeology will justifiably be perceived as an operational part of colonial and private interests, and only an inconstant partner of First Nations, despite the many individual archaeologists who endeavour to work for First Nations' best interests. As a result of this current (and historical) dynamic, there will continue to be challenges in developing the kind of trusting relationships with First Nations communities that all respondents stressed were essential to effectively and ethically working with TK.

The archaeologists I spoke to recognized Indigenous TK systems for their incredible scope and depth—as empirically built over the *longue durée*, as bodies of knowledge continually verified over generations and powerfully cross-disciplinary—and in this sense profoundly valuable to archaeological reasearch. However, the shifting social and archaeological landscape of British Columbia suggests also that the degree to which archaeological research may incorporate TK is not entirely in the hands of the province's current archaeologists. If: court decisions continue, as in recent rulings involving British Columbian First Nations, to put Indigenous knowledge and knowledge-forms on equal evidentiary footing as archaeology; more people of First Nations heritage become active in archaeology, bringing methods and theoretical approaches from their

own cultures; social beliefs continue to shift regarding the abstract value of historical knowledge versus the need to honour cultural protocol and autonomy (e.g., human remains protected *in situ* at archaeological sites and repatriated to First Nations from museum/lab collections rather than being "studied"); First Nations communities continue increasingly to control their own research agendas, the institutional management, and the public presentation of their heritage; then, as respondents prognosticated, archaeology will likely need to cede some of its authority, and its role in defining First Nations histories will change.

Regardless whether archaeologists choose to incorporate Indigenous worldviews into their own personal way of thinking, it seems clear that they must minimally continue to work to better understand Indigenous epistemology if they are going to most effectively work with TK. I argue that there is benefit to at least attempting to perceive the historical landscape from an Indigenous worldview (as many respondents described doing), if provisionally and with reflexive caution. TK, as a source of information, demands a level of hermeneutic sophistication well beyond what archaeologists, trained primarily in the science of material culture analysis and predominantly without the benefit of having grown up in Indigenous communities, initially have at their disposal. However, while the major issues raised in this research remain unresolved, the inventiveness and ambition evidenced by my interview respondents suggests that archaeology in British Columbia may be well-poised to tackle the personal and disciplinary development required to produce a more socially-just and productive relationship between archaeology and TK.

Ultimately, respondents spoke about their endeavour to integrate TK into their archaeological practice as a fundamental commitment to a different set of core values. In part these values are about practicing archaeology in a way that is fully conscious of the discipline's socio-political impact and its power to have lasting consequences on entire communities. But another aspect of that core value shift is toward a more humble stance—an acknowledgement that archaeology is just one way of knowing the past.

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Appendix A.

Interview Framework

[Notes in square-brackets are additional prompts for the interviewer, not necessarily put directly to respondents.]

<u>Introduction to respondents:</u>

- Summarize interview structure (demographics, personal experiences, then broader context); 20 questions, 1 hour
- This is a standardized interview framework, designed to allow for comparisons between participants' answers
- Questions may be skipped
- Some questions are intentionally naïve or provocative, and do not necessarily reflect my stance
- No one other than me will see these transcripts or listen to the audio recordings

1. Demographic survey
   a. Age group? [by decade]
   b. Gender?
   c. Ancestry?
   d. Education history?
   e. Professional experience? [years, employment type, location]
   f. General experience working with First Nations [type, not detail]
2. Defining/Recognizing TK
   a. ***What does the concept of traditional knowledge mean to you?***
   b. ***What forms of TK do you tend to encounter in your work as an archaeologist?***
3. Personal Experiences
   a. ***Have you engaged with traditional knowledge (TK) holders while working on an archaeological project?*** [Chance encounters with TK in the 'field' vs. Self-initiated engagement with TK]

b. *What have been the outcomes of incorporating TK into your archaeological practice?* [At research stages: i) Project planning; ii) Field work; iii) Interpretation and report-writing]

c. *How has your level of engagement with TK changed over time?*

d. *What opportunities would compel you to involve TK in your research in the future?*

e. *What practical challenges do you face in integrating TK into your archaeological practice?*

4. General Challenges/Opportunities of TK Incorporation in BC

   a. *In what ways does BC archaeology benefit from TK incorporation?*

   b. *What do you see as the limits of TK's contribution to archaeology?*

   c. *What future do you see for TK engagement by BC archaeologists?*

5. Socio-political Implications of TK Incorporation

   a. *Do you feel any social or professional obligation to incorporate TK into your archaeological interpretations of the past?*

   b. *How do the knowledge-sharing protocols of First Nations and TK-holders affect how or when you incorporate TK into your practice?*

   c. *Do you perceive any unevenness in power-relations between TK-holders and archaeologists?* [e.g., i) Who gets to write reports, tell authoritative stories about the past?; ii) Who gets to decide when/where TK is involved in historical meaning-making; iii) Legal implications of archaeological knowledge?]

   d. *What does/can archaeology give back to those who share TK?*

6. Epistemological Implications

   a. Forms:

      i. *What forms of TK do you consider 'historically-relevant', or applicable to archaeology? Do you make a distinction?*

      ii. *Does your approach to working with TK differ depending on the age of the site or the antiquity of the TK in question?*

      iii. *TK-systems tend to be tightly-interconnected, and historical information is sometimes bound up with abstracted narratives. How can archaeology approach this holism? How can (or should?) archaeologists 'tease out' information?*

   b. Power:

        i. ***Does TK represent a challenge to archaeology's authority?***
          And/or vice-versa?

       ii. ***How have you dealt with situations where your archaeological***
          interpretation conflicts with the explanations of a historical
          phenomenon encoded in a community's TK?

  c. Archaeology:

       i. ***Some researchers argue that archaeology's use of TK is a***
          natural extension of the multidisciplinarity that's at the heart of
          archaeology? Is the incorporation of TK into archaeological
          methods a straight-forward expansion of the so-called
          'archaeological toolkit'? How do you see this?

       ii. ***How do you work out how best to incorporate TK into your***
          practice? How useful is archaeology theory to you? Or others'
          work in the area? What resources have been useful to you?

       iii. ***Could archaeologists benefit from general guidelines & broad***
          theoretical directives, or does working with TK necessarily
          require local, contextual approaches?

7. Final respondent thoughts