Exploring The 'Interface' Between Traditional And Alternative Food Systems

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B.Sc., McGill University, 2003

Thesis Submitted In Partial Fulfillment Of

The Requirements For The Degree Of

Master of Natural Resources and Environmental Studies

The University of Northern British Columbia

February 2008

Canada

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Abstract

This study explores the 'interface' between First Nations traditional food systems and agricultural alternative food systems. Motivated by concerns about health, ecological integrity and cultural heritage, both First Nations peoples and local food activists are engaging in activities, programs and policy-making to address food-related issues, yet for different reasons. This study aims to characterize the relationship between traditional and alternative food systems through semi-structured interviews with key informants knowledgeable with both food systems. The interviews revealed parallels between them, including food acquisition techniques, language and objectives relating to health and the environment; however, differences relating to culture, history and identity were stressed repeatedly. Through examples, the interface was articulated as a collaboration, interaction or overlap between the two systems. Overall, this study affirms that there are reasons to consider the interface and provides a conceptual framework to think about this relationship, setting the groundwork for subsequent research on this topic.

were clearly defined. When it represented an overlap or shared space, those boundaries were fuzzy and there was a sense of concern both to underline the distinctions between the two systems and to highlight their parallels. As two food systems based around proximity, they are bound to share other qualities while remaining distinctly different. While there is a need to articulate these differences, there is also a need for cross-cultural discussions to help people understand and respect the unique needs of each culture in relation to food, to identify and resolve any areas of conflict, and to take advantage of opportunities to work together to address common food concerns. Overall, this study affirms that there are reasons to consider and raise the visibility of the interface so that the two food systems may thrive and co-exist harmoniously, and provides conceptual tools for thinking about this relationship.

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Chapter 1

Introduction

Food is one of the most basic and essential needs that all humans share. As such, food has been a key focal point of human interactions for most cultures around the world (Coveney 2000, Winson 1993). Food choices vary according to the types of resources available in a given place and are influenced by culture, affordability, access, education and personal preference (Kuhnlein and Receveur 1996). Together, the types of food available, along with their meanings and associated processes make up a food system. The term food system has been used to trace the activities, processes, impacts and meanings involved in the acquisition, production, processing, distribution, consumption and waste management of food (Pothukuchi and Kaufman 2000, Willows 2005). Kneen uses food system in reference to "a highly integrated system that includes everything from farm input suppliers to retail outlets, from farmers to consumers" (1995: 11). Thus, food systems are a reflection of a region's geographical and cultural diversity and embody a unique balance of social, environmental and economic values upheld by a particular group of people.

In British Columbia, a range of ecosystem types and a multi-cultural population give rise to the interplay of a variety of food systems. My research explores the relationship between two locally-based food systems - each rooted in its distinct cultural background - that interact in this province: the traditional

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food systems of Indigenous peoples[1] and agriculturally-based alternative food systems. A diversity of traditional food systems exists in British Columbia, reflecting the rich cultures and traditions of the myriad First Nations that have inhabited this land since time immemorial. Alternative food systems have emerged as a response to the negative social and ecological impacts brought about by the global food system (Allen et al. 2003, Kneen 1995). It is via the global food system that the majority of foods available in North American supermarkets are supplied; produced through industrial agriculture and distributed internationally. Whereas alternative food systems are a *response to* the global food system, traditional food systems reflect a *distinction from* it, as the food systems of Indigenous peoples have been a way a life for centuries, thus preceding the global food system.

Both traditional and alternative food systems function independently of the other and as such, have been studied separately (see for example Kuhnlein et al. 2001, Milburn 2004, Searles 2002, Shreiber 2002 *or* Allen et al. 2003, Grey 2000, Johnston and Baker 2005, Kneen 1995, Stagl 2002 respectively). Yet, as they both rely largely on locally[2] acquired or produced food resources and in many cases co-exist in the same geographic areas, a relationship between the two

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[1] In this paper, the term *Indigenous people* is used in reference to "a cultural group in a particular ecologic area that developed a successful subsistence base from the natural resources available. The plural form, 'indigenous peoples,' refers to more than one cultural group" (Kuhnlein and Receveur 1996: 418). The terms Aboriginal, First Nations and Indigenous are used here interchangeably. The Indigenous population in northern British Columbia, where the bulk of this research took place, is comprised of numerous culturally and linguistically distinct First Nations.

[2] Many academics have noted the varied ways that the term 'local' is used in food systems research (Bellows and Hamm 2001, Feagan 2007). Due to its lack of definition and point of reference, Bellows and Hamm (2001) propose referring to food systems in terms of being more or less local or global to describe its reliance on either local autonomy or a concentration at the global scale, respectively. In this paper, I also use the term 'local' loosely to describe food systems with an emphasis on regionally-based food resources.

systems seems inevitable. I use the idea of an 'interface', signifying an interaction or shared space between the two systems, to help characterize this relationship. In the literature, no research has attempted to analyze traditional and alternative food systems together; firstly as two distinct local food systems interacting in the same regions, and secondly in their common orientation away from the global food system. Understanding how traditional and alternative food systems interact can help to identify and perhaps resolve any conflicts that may be inhibiting them from co-existing harmoniously. Investigating the dynamic between food systems is an important step in assessing what does or does not work in a given region, and for whom. Therefore, my study explores the interface between traditional and alternative food systems as a way of understanding how to support and promote local food systems in general.

1.1 Research Question

The overarching question that guided this research was - what is the 'interface' between traditional and alternative food systems? This question was anchored in the assumption that a relationship did in fact exist, based on theoretical parallels found in the literature and interactions observed through involvement in the same food-related activities. However, as each food system is distinct and unique, it was important to first consider the implications of such an assumption. Accordingly, the first component of answering my research question involved examining the interface as a concept and contemplating

whether it was appropriate to assume that one exists between the two food systems.

'Interface' can be considered two ways. An interface can be defined as "the area shared by or linking two or more disciplines or fields of study" (Costello 1991: 702). An interface can also be defined as "a point where two things meet and interact" (Pearsall 1999: 738). The first definition emphasizes an overlap where two systems or entities meet and interact, while the second describes two independent systems that communicate or interact. These two definitions can be depicted by A) two circles overlapping and B) two independent circles that do not touch. Figure 1 illustrates these two different ways of conceptualizing the 'interface'. A critical part of this research entailed clarifying whether the 'interface' between alternative and traditional food systems more closely resembled A or B.

Figure 1: Conceptualizing the 'interface'
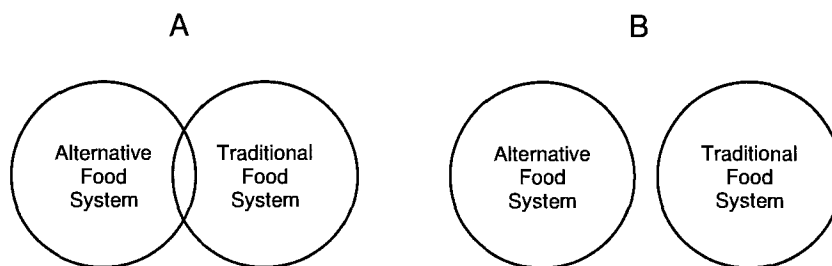
The second group of questions was designed to provide information so that we might characterize the relationship between traditional and alternative food systems by finding and comparing different examples of their interface

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throughout the province of British Columbia. The research question and sub-questions are as follows:

What is the 'interface' between traditional and alternative food systems?

1) Is there an interface – what is the interface as a concept?

2) What is the interface between the two food systems

    a. What are examples of the interface?

    b. For there to be an 'interface', is it sufficient that the two systems use the same activities, or must these activities be actively promoting both traditional and alternative food systems simultaneously?

1.2 Scope and limitations

As an exploratory study, the purpose of the research was to scope out the boundaries of the as of yet unexamined relationship between two food systems; therefore, this project can be understood as a preliminary study of where and how traditional and alternative food systems relate to each other – if indeed they do. In the absence of a known study population, a snowball method of sampling was used. This method resulted in semi-structured in-depth interviews conducted with thirteen key informants across British Columbia who were involved, in different ways, with traditional and alternative food systems. While attempts were made to provide a balance of perspectives relating to local and provincial activities, as well as from Aboriginal and non-Aboriginal organizations,

this snowball method to recruit participants necessarily limits the range and type of data collected. The people interviewed were engaged in supporting traditional and/or alternative food systems both professionally and in their personal lives. Their involvement ranged from coordinating programs and activities at a regional or municipal level, to advocating for policy changes at provincial, federal and international scales. With the exception of two, the participants were chosen specifically for their knowledge and involvement with both food systems.

One drawback to this approach was that the data obtained from the interviews were highly dependent on the mix of people who took part. However, the purpose of this study was to understand the dynamic between two different food systems, not to generalize about groups of people; thus, diversity was sought in the roles of those interviewed. Furthermore, the perspectives of the participants should be understood within the context of this particular province as a similar study undertaken in another province would likely yield different results.

As there have been few studies examining food systems in Canada, and much less specific to British Columbia, this study will thus add to the growing body of food systems research and knowledge both federally and provincially. The interface is an important concept to investigate because the interaction, intentional or not, between traditional and alternative food systems may have implications on how each system functions individually, as well as how they relate to each other.

1.3 Chapter Preview

Chapter 2 provides the background and context for this research project, and is divided into two sections. The first part summarizes studies in the literature relating to traditional and alternative food systems individually. The second component uses examples from the literature to suggest parallels between the two food systems, setting the foundation for discussing their 'interface'. Chapter 3 outlines the study design and methods chosen to answer the research questions. Chapter 4 summarizes the dominant and recurring themes that arose from the interviews. Finally, Chapter 5 uses the interview data to answer the research questions, discusses the broader implications of this question, and suggests areas for future research.

Chapter 2

Literature Review

The purpose of this literature review is to provide the context for answering the research question. As this study explores the interface between two things – traditional and alternative food systems - it is important first to understand the characteristics of each food system before discussing the interactions or space *between* them (the interface). A third food system is also introduced in this section (the global food system) because it has been a major factor in the formation and the transformation of alternative and traditional food systems, respectively. This literature review has been organized into two sections: the first describes the characteristics and historical background of each food system; the second draws examples from the literature that suggest parallels between the two systems and introduces the possibility of an interface.

2.1 Background

2.1.1 The Meaning of Food

Food unites human beings as a basic need shared by all. Food is distinct from other needs because it is ingested, it goes inside our bodies and it physically becomes a part of us; thus linking food to our sense of identity (Meigs 1997). Food plays many roles and holds multiple meanings in our daily lives, as

people, as members of a particular social group or culture, and in how we relate and interact with our surrounding environment.

Food and society

Biologically-speaking, food nourishes our bodies with the nutrients essential to our survival. The foods that we ingest are broken down into elements and compounds that perform essential physiological functions and form the substance of our cells. Humans are omnivores; that is, as a species we can thrive on a variety of diets. In fact, variety is critical for our health since no one food source contains all of the nutrients that our bodies require to function (Fischler 1988). Because of this, humans make choices about the kinds of foods they eat, within the parameters of the resources available. What we choose to incorporate into our bodies has the power both to maintain and erode our health: it gives us life and it can take it away (Corr 2002). Quite literally, we are what we eat, or rather we become what we eat (Fischler 1988). Not only does the incorporation of food construct our biological selves, but it also forms our sense of personal identity. According to Fischler, "the principle of incorporation underlies to a great extent human attempts at control over the body, the mind and therefore over identity" (1988: 280). In other words, part of how we decide who we are and what we want to become is based on the food we eat.

Food is also a means through which we relate to others, by virtue of knowing that unless we acquire it ourselves, eating food involves other people. What we eat is often the fruit of someone else's labour, "the output of their blood, their sweat, their tears" (Meigs 1997: 104-105). Meigs suggests that "food is a

particularly apt vehicle for symbolizing and expressing ideas about the relationship of self and other" (1997: 104-105). Food conveys meaning in personal relationships and is often used to express respect, trust or gratitude (Worsley 2000).

Just as food is important in the construction of personal identity, it is similarly a marker of local or cultural identity (Fischler 1988, Nabhan 1993, Shreiber 2002). Choosing to eat or to avoid certain types of foods can mark one's inclusion in a particular religious or cultural group. "Endless examples can be found to illustrate the fact that we define a people or a human group by what it eats or is imagined to eat" (Fischler 1988: 280). Many indigenous peoples, for instance, distinguish themselves from others through the foods they eat and consider to be traditional. The Inuit define food as either *Inuit food* if it has been hunted, fished or gathered locally; or *Qallunaat* (non-Inuit) *food* if it has been produced, packaged and sold in stores (Searles 2002: 66). This categorization is an expression of cultural-identity and power. While eating raw or boiled ringed seal and walrus meat (mainstays of a traditional Inuit diet) affirms Inuit identity, it also holds meaning specifically because Qallunaat do not like to eat them. Some foods which technically fall into the category of Inuit foods, such as caribou meat, are not attributed the same status as walrus meat because they are enjoyed by most Qallunaat and are served in local restaurants (Searles 2002).

In addition to the types of foods eaten by peoples of a particular cultural or social group, the methods through which food is acquired help to define social groups. Shreiber (2002) describes how members of two coastal Indigenous

communities in British Columbia do not consider salmon to be a traditional food when it comes from a fish farm, as it is not wild and therefore not natural. She notes that even the community members who work at the fish farm choose not to eat the farmed salmon.

Food is commonly used as a form of resistance to threats to land, culture or sovereignty (Shreiber 2002). In her research on the effects of salmon farms on both commercial and 'food' fishers, Shreiber notes that "people saw their knowledge of traditional foods as their last line of resistance against intrusion into their territories, but they also perceived it to be their most powerful form of opposition" (2002: 375).

Food and the environment

Food intimately and directly connects people with nature, with the land and water resources that sustain our own species along with millions of other organisms with whom we share this planet. Since food acquisition requires humans to interact with nature, activities such as hunting, fishing and farming represent the first link between humans and the environment. McMichael describes food as "the links between nature, human survival and health" (2000: 32). Willows comments that for many indigenous peoples, eating traditional foods is "an anchor to culture and personal well-being, an essential agent to promote holistic health and culture, and the direct link between the environment and human health" (2005: S33).

Human health is a direct consequence of the quality and availability of the natural resources provided to us by our ecosystems. At the same time, the methods we choose to produce or harvest these resources impacts the integrity of our surrounding environment, and ultimately our own health. Some of the methods humans use to acquire food have had negative environmental impacts, such as the extensive use of pesticides and monoculture plantations in agriculture, and the over-exploitation of aquatic resources (Grey 2000). It is partly the resources available in a particular geographic area that give rise to the eating habits that distinguish different cultures and food systems. That said, the international trade of food has been taking place for centuries (Lang 1999, Phillips 2006). Lang argues that while globalization is not new, especially when it comes to food exchange, "what is new about the current phase of globalization is the pace and scale of change, and the systematic manner in which control can be executed" (1999: 338). Before this more rapid spread of globalization made imported foods so widely accessible, people generally obtained the majority of their food locally (Kneen 1995, Reid 1999).

2.1.2 Traditional and Alternative Food Systems

The combination of resources in a given place, along with the meanings and processes involved in bringing food from 'land to mouth,' are what make up a food system (Kneen 1995). This report examines two food systems in British Columbia: traditional food systems of First Nations and alternative agricultural

food systems. This section describes each food system separately so they can be understood in the context of their particular histories.

Traditional food systems

First Nations peoples across British Columbia have been successfully sustaining themselves from the land's resources for millennia (Bell-Sheeter 2004, Turner 2001, Wilson 2004). The intimate and lengthy relationship that indigenous peoples have developed with the environments in which they live has enabled them to amass a wealth of knowledge about nutrition, healing, resource management and disease prevention (Loppie 2007, Milburn 2004). Guyot et al. describe traditional foods in this way:

> *Traditional food is local food; animals, fish, birds and plants that are harvested from the environment for human consumption. People living in the northern parts of Canada have a nutritional, spiritual and cultural dependence on these systems (2006: 404).*

Kuhnlein and Receveur define traditional food systems as "all food within a particular culture available from local natural resources and culturally accepted" (1996: 418). Many studies attest to the high quality and nutritional content of traditional foods around the world (see for example Kuhnlein et al. 2001, Milburn 2004, Nabhan 1993). In comparing wild plant foods to those that are cultivated, Milburn points out how the former are higher in essential nutrients such as calcium, iron, magnesium and vitamin C. Furthermore, he notes that wild meats are leaner and have a higher nutritional content than domesticated meats, and that wild fish are lower in saturated fats than farmed fish (2004: 424).

Traditional food systems and associated knowledge are being acknowledged for informing and developing sustainable resource management strategies (Berkes et al. 2000, Milburn 2004) and "in providing locally valid models for sustainable living" (Turner et al. 2000: 1275). Kuhnlein and Receveur contend that "the knowledge indigenous peoples have about the natural environment and their traditional food resources has given them a reputation as stewards and monitors of environmental health and species diversity" (1996: 419). Turner et al. explain that the traditional management practices of indigenous peoples "are derived from generations of experimentation and observation, leading to an understanding of complex ecological and physical principles" (2000: 1276). While traditional ecological knowledge is increasingly being recognized and integrated into various disciplines, it is more than a body of knowledge or management strategy - it is a way of knowing and living passed down through countless generations (Little Bear 2000). Traditional food systems entail building and maintaining strong spiritual connections with plants, animals and the landscape in general (Milburn 2004). The spiritual element embedded in traditional food systems and Aboriginal worldviews fosters attitudes of respect reciprocity and balance in all aspects of life (Little Bear 2000).

Each First Nation's food system is a unique representation of their culture and relationship with the plants and animals in their territories (Turner et al. 2000). Correspondingly, traditional food systems in British Columbia are as diverse as the multitude of First Nations from which they originate. What these food systems share are understandings and values regarding the relationship

between food, culture and the environment that are distinct from the perspectives that have shaped western food systems (Kuhnlein et al. 2006, Loppie 2007, Milburn 2004). Referring to these foodways as 'traditional' effectively distinguishes them from other food systems (Shreiber 2002). Shreiber writes:

> *Claims about what constitutes 'traditional food' are political statements that allow people to renegotiate their relationship to the past in light of present circumstances... Traditions are, after all, encounters with other groups and cultures. Features of any society are important not because they stand on their own but because they can be contrasted with something external (2002: 373-375).*

Today, the diets of First Nations peoples across British Columbia consist of a combination of traditional and market-bought foods (Kuhnlein and Receveur 1996, Willows 2005). The shift away from an exclusively traditional diet can be traced back to the numerous assaults on the lives of indigenous peoples that followed the arrival of European settlers in British Columbia (Kuhnlein et al. 2001, Richmond et al. 2005). It is well documented that the cohesion within First Nations societies began to deteriorate as a result of oppressive and discriminatory policies forced upon them by the newcomers (Bell-Sheeter 2004, Johnson Gottesfeld and Anderson 1988, Richmond et al. 2005). The assimilation policies imposed by the Canadian government on First Nations peoples have left many with a limited ability to access traditional resources, income and education, and as Richmond et al. assert, "a standard of living far below that of their non-Aboriginal counterparts" (2005: 352-353).

Historically, the traditional knowledge of indigenous peoples has not been valued or respected; on the contrary, it has been undermined and condemned

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since the time of colonization (Kelm 1998). The colonial experience for Aboriginal peoples in Canada compromised the transmission of traditional knowledge and values from older to younger generations. Traditional ceremonies that facilitated the transmission of traditional food knowledge and effectively managed and monitored human and environmental resources, such as the potlatch of the Northwest Coast, were outlawed by the Canadian state (Johnson Gottesfeld and Anderson 1988, Richmond et al. 2005). The federal government further broke the continuum of knowledge by isolating Aboriginal children from their families in residential schools (Kelm 1998). In these foreign settings, the children were prohibited from speaking their native languages and were immersed into the western-style education system, rendering it very difficult for Elders to communicate traditional values to them upon their return. Concepts of a spiritual nature were more complicated to explain, such as traditional knowledge of food and medicine, and became particularly fragile as the Elders had difficulty expressing them in a foreign language (Johnson Gottesfeld and Anderson 1988).

Impediments to engaging in traditional practices, due to resource contamination from industrial activities (particularly arsenic, cadmium, lead and mercury, along with various organochlorides) (Chan and Receveur 2000, Kuhnlein and Chan 2000), time constraints from work or the growing time it takes to travel to and from harvesting sites (Hickey et al. 2005), along with government-imposed harvesting restrictions continue to threaten the integrity of traditional food systems and prompt many people to migrate to urban areas where

traditional foods are not readily available and income poverty is widespread

(Dowler 2003, Horvath et al. 2002, Kuhnlein and Receveur 1996). In their

research with the Little Red River Cree Nation in northern Alberta Hickey et al.

(2005) linked a decrease in traditional harvesting activities to many social issues

faced by the community, including alcoholism, abuse and suicide, as well as

what the authors describe as 'drifting' or a general lack of direction in people's

lives. They described how the Little Red River Cree Nation had been built

around subsistence harvesting, and how social cohesion and stability become

disrupted when people are distanced from their traditional lifestyles. "For those

who can not or do not hunt, alternatives are limited. Local jobs are few, and, even

if obtained, do not very well replace the spiritual element of the bush lifestyle, nor

the companionship of family" (Hickey et al. 2005: 291). They emphasize how this

community's strength is derived not only from spending time together hunting,

but also in the sharing of food and the recognition of food as a gift.

Many authors have noted that as First Nations peoples eat more of a

combination of traditional and store-bought foods they are more likely to endure

the downfalls of the global food system (Bell-Sheeter 2004, Milburn 2004, Wilson

2004). Wilson writes, "loss of land base and destruction of ecosystems,

combined with the imposition of the colonizer's diet and lifestyle through

government boarding schools and commodities programs, have left Indigenous

populations debilitated with what scholars have termed 'Western diseases'"

(2004: 364). In northern and isolated towns the opportunities to purchase food

are limited, and less-nutritious processed food is more affordable than healthier options (Kuhnlein et al. 2001).

This history of assimilation through government policy, combined with ongoing industrial activities encroaching upon and contaminating traditional territories, have largely contributed to this shift away from traditional diets (Johnson Gottesfeld and Anderson 1988, Kuhnlein and Receveur 1996). The adoption of a western diet and subsequent shift from traditional foods to store-bought foods have been linked to the prevalence of chronic diet-related diseases and food insecurity, both of which occur more frequently among indigenous peoples in comparison to the rest of the population (Kuhnlein et al. 2001, Willows 2005). These incidents have sparked a renewed interest in traditional diets, related in part to the downfalls of the global food system. Traditional foods are reportedly more nutritious than store-bought foods; moreover, they encourage physical activity, save money, foster education, prevent disease and are central to cultural identity (Kuhnlein et al. 2001). Words for conditions such as diabetes did not exist in Aboriginal languages before colonization because the conditions themselves did not exist (Jay Wortman, keynote presentation, Northern Aboriginal Diabetes Conference 2007). Research suggests that some of these health concerns can be reversed through the re-adoption of traditional diets and lifestyles (Kuhnlein and Receveur 1996, Wilson 2004). Revitalizing traditional food systems affirms the multiple values and functions of food for First Nations peoples, including an attempt to off-set the health and environmental risks associated with a western diet (Wilson 2004).

As Guyot et al. note, "the changes in the availability and accessibility of the traditional food harvest are not only an issue of food security, but also one of cultural preservation, and they deserve serious recognition by governments around the world" (2005: 414). Kuhnlein et al. emphasize the demand of indigenous peoples worldwide that, "Indigenous peoples can survive as cultures only with rights and access to their land and knowledge and ability to make full use of the food it provides" (2006: 1015). As Wilson explains, "Indigenous knowledge recovery is an anticolonial project...(it) is a conscious and systematic effort to revalue that which has been denigrated and revive that which has been destroyed" (2004: 359). It follows that recovering traditional food knowledge and rebuilding traditional food systems are key to reversing the prominent health and social problems faced by indigenous peoples today.

Around the world indigenous peoples are developing strategies to regain their food sovereignty and to reverse the damage that has resulted from centuries of oppression (Agrawal 1995, Conti 2006, Thompson 2001). The renewed interest among First Nations peoples in revitalizing their traditional food systems not only addresses prominent health concerns, but also preserves the their respective cultures (Bell-Sheeter 2004, Kuhnlein et al. 2006). Wilson writes, "Indigenous communities throughout North America are experiencing a resurgence in interest in traditional knowledge and practices that are associated with health and well-being rather than pain and sorrow" (2004: 365). Indigenous leaders are voicing their frustrations and challenges in efforts to conserve and protect their environments and livelihoods and are calling for "global action to

promote food sovereignty for indigenous peoples and to protect traditional lands and food resources" (Kuhnlein et al. 2006: 1014).

In addition to international action, local First Nations groups across the country are engaging in actions to take back control over their resources and generate employment. For instance, Kuhnlein and Receveur (1996) mention the success of a program promoting traditional food consumption among the Nuxalk. In other places, First Nations groups are ensuring the availability and accessibility of their traditional resources through the establishment of food co-operatives (Chambers 2001, Hammond-Ketilson and MacPhearson 2001). Across British Columbia, many programs promoting traditional and quality foods in response to the growth of diabetes and the prevalence of food insecurity and malnutrition are underway (see Collier and Koop 2007, H.E.A.L. 2007, Kneen 2002).

Alternative food systems

Alternative food systems have emerged as a response to the negative social and environmental impacts brought about by the global food system. The global food system (also referred to as the industrial or conventional food system) is characterized by the mass production of food commodities through agricultural intensification and the international distribution of food products (Friedman 1993, Grey 2000). This type of system involves a long chain of events, or a *food chain*, linking all of the processes and people that bring food from the land to our dinner tables (Kneen 1995). The nation state has become

less and less active in regulating and monitoring primary sectors such as agriculture, allowing for increasing corporate control over the food system (Johnston and Baker 2005). Corporations take advantage of this growing control to maximize their economic opportunities through specialization and export-oriented production in countries where environmental and labour regulations are less strict (Grey 2000, Shwind 2005). Furthermore, the routine use of chemical pesticides and fertilizers, monoculture cropping systems and biotechnology threaten ecosystem stability through soil erosion and the loss of biodiversity (Beus and Dunlap 1990, Grey 2000).

Alternatives to the global food system emerged as citizens became concerned about the safety of their food, the state of the environment and the wages and working conditions of people all along the food chain (Allen et al. 2003, Goodman 2003, Grey 2000, Kloppenburg et al. 2000). Over the past fifty years "great productive capacity" (Koc and Dahlberg 1999: 113) has been achieved in the industrial food system by intensifying and globalizing food production; however, gains in productivity and economic efficiency have resulted in negative social and environmental consequences globally (McMichael 2000, Sundkvist et al. 2005).

Many attempts have been made to articulate an 'alternative' food system based on quality ('good' food, environmental responsibility, social justice) rather than quantity (production, profits). Correspondingly, many names appear in the literature reflecting variations on these themes: alternative food initiatives (Allen et al. 2003), alternative agro-food networks (Goodman 2003), community food

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security (Anderson and Cook 2000), local food systems (Bentley and Barker 2005, Hinrichs 2000), alternative food regimes (Friedmann 1993), the 'good food' value chain (Connell et al. forthcoming) or the food justice movement (Wekerle 2004). Collectively, "they affirm a shared political agenda: to create food systems that are environmentally sustainable, economically viable, and socially just. Most frame their engagement as opposing the global by reconstructing the local" (Allen et al. 2003: 61). Grey describes alternative food systems as "a kind of 'new agriculture' that actively distinguishes itself from the industrial food stream...(by)...re-establish(ing) links between food producers and consumers" (2000: 147). Wekerle describes a "place-based movement" that attempts to "de-link local economies from the corporate-controlled global food system" through activities such as "growing food in the city, developing a regional food system, buy-local campaigns, or microenterprises" (2004: 379). Alternative food systems seek to transform the dominant food system by detaching from "unsustainable commodity chains" (Johnston and Baker 2005: 318).

Groups advocating for alternatives to the global food system come from varied backgrounds and disciplines. In the literature, many authors note different categories of arguments for alternative food systems. Anderson and Cook (2000) point to three streams of food security advocates: nutritional educators concerned with including citizens in planning; agricultural research and grassroots activists seeking environmentally sound food production; and the anti-hunger, anti-poverty groups looking to enhance community development. Similarly, Johnston and Baker (2005) suggest three social realms to consider: the

political-economic, highlighting the lack of state intervention in ensuring food security as well as the limitations of the emergency food sector; the cultural realm, pertaining to how people think about food; and the political-ecological sphere, emphasizing the effects of current agricultural practices on the environment. Levkoe (2006) also divides the alternative food movement into three streams: the 'food as a human right' discourse, stressing the role of government to prevent hunger; the 'anti-poverty' discourse, outlining the role of social safety nets and income; and the 'community food security' discourse, which takes the arguments of the first two, and adds sustainability, community building and a systems approach.

For the purpose of this research, alternative food systems are summarized in terms of three interrelated categories: health concerns, environmental concerns, and social concerns. Health concerns include the nutritional content, quality and safety of food. Environmental concerns entail issues of sustainability, agricultural run-off, biodiversity, and climate change. Lastly, social concerns include food security, food sovereignty, fair trade, the livelihood of food workers, and the exploitation of human capital. The potential impact of the alternative food movement in transforming the global food system depends on how these issues are framed.

As the dimensions of transforming the global food system are complex, a great number of researchers emphasize the need to develop a cohesive framework and to articulate a common vision for a desirable food system (Anderson and Cook 2000, Kloppenburg et al. 2000). A clear consensus is

considered imperative to developing effective policy priorities, for instance. Kloppenburg et al. (2000) suggest that for alternative food systems to have any meaning, certain terms need better definitions. They urge that phrases like 'ecologically sustainable' and 'economically viable', when left ambiguous, can be used by alternative food activists and big agribusiness alike. As an example, the word 'sustainable' has been co-opted to the extent that it is being applied to justify activities that contradict its original meaning (Carruthers 2001). Stagl points out that the sustainability of a food system is difficult to evaluate or measure and describes it in terms of balancing the energy inputs and outputs in food production, processing and distribution. With respect to food systems, Coveney offers the following definition: "meeting our present food needs without compromising the ability of future generations to meet theirs" (2000: S97). Defining the promises and parameters of a 'good' food system remains an ongoing area of research.

The effectiveness and role of scale, both in food systems research and application, is widely debated among scholars (Allen et al. 2003, Grey 2000, Kloppenburg et al. 1996, Wekerle 2004). Despite claims that local food systems can mitigate the problems resulting from industrial food production, it has been argued that there are limitations to 'opposing the global' at an exclusively local level (Allen et al. 2003, Born and Purcell 2006, Johnston and Baker 2005). As Patricia Allen (1999) points out, 'local' control is not necessarily 'better' control. She raises questions regarding the extent to which power and responsibility should be transferred to the community level and warns that maintaining a

narrow, exclusively community-based approach will not address issues better suited for national and international action. While local food systems may offer alternative solutions to local problems, there are roles and responsibilities to be upheld at all levels of society to create a more just and sustainable food system (Allen 1999). Wekerle adds that "community food security initiatives should not limit themselves to the local and community scale but pay greater attention to regulatory and policy changes in the food system that involve the state" (2004: 378), and Johnston contends that "local organization is necessary, but not sufficient" (2003: 30). As with many of the words used to guide the alternative food movement, Feagan (2007) argues that while advocates for 'relocalizing' the food system have good reason for doing so, they should be more explicit about how they use the term 'local'.

While there are limitations to working within only one level of an 'alternative' food system, localized food initiatives are having positive impacts on individuals, neighbourhoods and municipalities (Levkoe 2006). Levkoe points out that those resisting the commodification of food need knowledge and skills to actively participate in transforming the global food system and claims that "local grassroots initiatives have the ability to provide this opportunity" (2006: 92). Thus, transforming the global food system from the 'bottom up' appears to be an accepted starting point for developing more sustainable and just food systems.

2.2 The 'interface'

In addition to the above discussion emphasizing the unique characteristics of traditional and alternative food systems, a survey of the existing literature pointed to parallels in the values and language used to describe current research relating to each food system. It is these parallels that suggest an 'interface' exists between them. This section outlines concepts and terms found in the literature that are shared by the two food systems.

Proximity and distance are two indicators of the underlying worldview within which a food system is situated. Both proximity and distance encompass the physical facets of a food system (i.e. geographic distance between food production and consumption) and its cultural foundation (i.e. how food is perceived and valued) (Kneen 1995). In other words, the degree of physical and cultural distance that exists in a given food system relates to different sets of values and beliefs about food that are dominant in that system. In a food system based on proximity, food is consumed "as close to the point and condition of production as possible" (Kneen 1995: 113). In contrast, increasing distance in a food system lengthens the food chain and all of the steps between the place where and time when that food was harvested, to when and where it is consumed. Not only is food distanced from the eater in a physical sense, but as food production and preparation are no longer a large part of our daily lives, we also become distanced from other aspects of food. In the literature, the term *distancing* has been used to explain the separation between people and their food source (Kloppenburg et al. 1996, Kneen 1995, Levkoe 2006, Milburn 2004).

Examining the degree of physical and cultural distance in a given food system is helpful in understanding how the systems yield different social, environmental and economic outcomes.

2.2.2 Distance

The literature suggests that the increased distance that characterizes the global food system leads to increased productivity and profitability, accompanied by environmental degradation and multiple social concerns (Koc and Dahlberg 1999, McMichael 2000). In the global food system, food produced in one country is transported and consumed by people living thousands of kilometers away (Grey 2000). Such distance requires a massive reliance on transportation, which consumes an enormous amount of fossil fuels and increases greenhouse gas emissions significantly, thereby exacerbating global warming (Bentley and Barker 2005, Shwind 2005, Stagl 2002). In order for food to withstand the time and distance it takes to travel from its site of production to consumption, it must be made durable. Thus, to facilitate large distance-transportation, processing and preservation techniques are used to increase the shelf life of food products; however, the nutritional value and safety of food is said to be compromised as a result (Dixon and Banwell 2004, Friedmann 1993).

There is also a growing distance between the people making decisions about how food is produced and those involved in its production in the global food system (Grey 2000). More and more, decisions in the agricultural sector have moved out of the hands of farmers and government bodies and into the

hands of multinational corporations (McMichael 2000). "From farmers to consumers, all social actors and agencies involved in these processes are separated from each other not only spatially and temporally, but by their functionally different interest" (Koc and Dahlberg 1999: 112). The disconnect between the people making decisions in boardrooms and the people affected by their decisions perpetuates a narrow focus on economic interests in the food system, overshadowing social, cultural and environmental concerns (Sundkvist et al. 2005).

The degree of distance in a food system also relates to the extent of involvement and values that people engage in or attribute to food and eating. Comparing food systems based on their scale of operation is useful in understanding how food is valued in each. In the global food system, physical distancing is accompanied by cultural distancing, whereby our perception of food has been transformed from a resource with multiple values, meanings and uses, into a commodity that is understood primarily in terms of its economic value (Friedmann 1993, Kneen 1995, Milburn 2004). In the global food system, food is regarded as a neutral object "with no intrinsic value and no longer any intrinsic relationship to life, or to hunger and human need" (Kneen 1995: 15), and ultimately no moral obligations to people or the environment. Increasing distance in the food system is "an attempt to make place irrelevant" (Friedmann 1993: 220) and to disconnect people from their primary means for survival (Allen 1993). From this perspective, companies justify transforming biologically diverse areas into uniform monocultures, diminishing thousands of crop varieties developed by

farmers over hundreds of years to a handful of 'staple' grains in the name of progress and development (McMichael 2000, Tuxill 2000).

2.2.1 Proximity

Traditional and alternative food systems are both examples of food systems that display attributes of proximity, as they both involve the consumption of locally acquired or regionally produced foods. The boundaries of traditional food systems are largely defined by the habitat of culturally important resources found within each First Nation's territory. While food trade with neighbouring nations has always existed, the bulk of a band's traditional food resources originate from their own territory. Likewise, Kloppenberg et al. (1996) have introduced the concept of a foodshed to describe the boundaries of local food in the alternative food movement.

It is held that food systems based on proximity tend to promote sustainability and health (Kloppenberg et al. 1996, Kneen 1995). Consuming local foods instead of imported foods helps to reduce food miles and global greenhouse gas emissions (Bentley and Barker 2005, Stagl 2002). As people seek out local foods, they become reconnected not only with their food source, but also with the farmers, hunters, fishers and small-scale processors in their regions. Building relationships between producers and consumers creates a sense of trust and 'mutual engagement' in food production and consumption (Allen et al. 2003, Stagl 2002). As citizens become more involved in their food systems, they also develop a heightened awareness regarding the effects their

food habits have on the environment and the people involved at each stage of the food chain (Johnston and Baker 2005, Levkoe 2006). Furthermore, small-scale farmers, hunters and fishers benefit from local consumption as they can take advantage of niche markets and develop a more reliable consumer clientele. As local food - whether it is farmed, fished, hunted or gathered - retains its freshness, it has a higher nutritional content in comparison with conventional food (Kuhnlein et al. 2001, Stagl 2002).

There are also parallels in the way that food is perceived and valued in these two proximate or local food systems. Whereas in the global food system, distancing is predicated on the separation of people from nature, a common theme among traditional and alternative food systems is the interconnectedness between people, food and the environment. Kneen contrasts qualities that define the global food system – specialization, uniformity and distance - to three qualities that describe more local food systems - balance, diversity and proximity (1995). He contends that these characteristics "have always been the basis of those food systems that have sustained Native communities, whether in the Arctic, in the mountains of Peru, the deserts of Africa, the rain forests of Central America or the coastlands of the world" (Kneen 1995: 13). In localized systems, food is valued as more than a product it is recognized to be essential to life (Rosset 2003), linked to culture and as "a source of pleasure, community and meaning" (Johnston and Baker 2005: 317). When people value food as more than a commodity they also tend to display a sense of shared responsibility to the environment and to each other (Kneen 1995). In food systems where food is

seen to have many purposes, there is greater concern over the stewardship of natural resources and the livelihoods of the people involved along the food chain (Kloppenberg et al. 1996). The varying degrees of distance between people and food thus produce very different food systems with vastly different consequences on human and environmental health.

Even though traditional and alternative food systems seem to exhibit some similarities in terms of values and processes when contrasted against the global food system, it is important to emphasize that underlining their common ground does not imply that the two systems share the same struggles. The global food system does not affect all sectors of society equally (Kneen 2006, Koc and Dahlberg 1999). Health concerns, including diabetes, malnutrition and food insecurity, are more prevalent among economically and politically marginalized groups, such as First Nations in Canada (Anderson et al. 2004, Riches 1999). For Aboriginal peoples, the global food system is but another force within a continuum of colonization strategies that have eroded traditional livelihoods. Therefore, when considering how traditional and alternative food systems relate, both to each other and to the global food system, each must be understood within its own historical and socio-economic context.

Chapter 3

Methods

This study explored how traditional and alternative food systems relate –
their potential interface - by interviewing key informants engaged in food-related
programs and activities. The interview questions aimed to discover to what
extent (if any) intentional networking or dialogue existed between the two food
systems, and in what ways their associated activities, programs or policies
overlapped or interacted. This chapter outlines the rationale behind the chosen
research methods, as well as their strengths and weaknesses.

3.1 Overall approach

As the 'interface' has not yet been addressed in food systems research, a
main objective was to gather information that would help to define and analyze
the concept of 'interface' between traditional and alternative food systems.
Accordingly, this study used an exploratory research design. Exploratory
research is useful when a concept is new and the researcher wishes to become
more familiar with that topic (Babbie 2004). This method can also be used "to
test the feasibility of undertaking a more extensive study and to develop the
methods to be employed in any subsequent study" (Babbie 2004: 88).

The reflexive nature of exploratory research allowed me to adapt and
refine my research questions along the way, and to modify interview questions
during the process to improve the validity of the data obtained (Babbie 2004).

Exploratory research is meant to be flexible and does not generally provide or develop definitive answers or theories. Whereas the in-depth nature of exploratory study can add to its validity, it tends to lack reliability as someone else using the same study design as this could obtain different data and thus draw different conclusions than those covered in this study (Babbie 2004). For this reason, one of the principle uses of exploratory studies is to establish a basis of information and to articulate more directed questions for subsequent studies. Exploratory research was an appropriate method to tackle my research question as no pre-existing research on this topic existed upon which to build my study.

3.2 Participant Selection and Sampling

The selection of participants was purposive in order to target key informants with a known background or interest in either traditional or alternative food systems. This form of sampling was chosen because the information sought was highly dependent on the participants' degree of involvement with and knowledge of the two food systems. Furthermore, this approach helped to ensure that the study reflected a balance of perspectives relating to both traditional and alternative food systems.

A list of potential interview participants was compiled based on people I had already encountered at conferences and other events with a focus on traditional or alternative food. After these initial interviews, snowball sampling was used to obtain additional names. Snowball sampling involves asking each participant to suggest the names of people who may be able to inform the topic

and is used when "members of a special population are difficult to locate" (Babbie 2004: 184).

This sampling technique produced a list of potential contacts, displaying a diversity of relationships with and between the two food systems. Snowball sampling also provided information and opportunities that would not have been accessed through random sampling, or by limiting the study only to people known through previous encounters. One of the weaknesses of snowball sampling, however, is that it is said to lack representativeness (Babbie 2004). Representativeness, in this case, was of minimal importance since the focus of this study was on the food systems rather than the people. In other words, the data collected from the interviews were used to characterize a space shared by two food systems, not to generalize about a particular group of people.

The participants selected for this study were people who were known to be knowledgeable in traditional and alternative food systems and had either a personal or work-related interest in local food, oftentimes both. A diversity of perspectives was sought, as this study was exploratory and aimed to scope out the boundaries of the 'interface' as a concept. Some of the interviewees were involved with programs or organizations working at a municipal level, while others were engaged in activities or groups working at provincial, national and even international levels. Furthermore, the participants included people working in different sectors, including various levels of government, non-governmental organizations and small-scale businesses. As this study set out to learn about the relationship between traditional and alternative food systems, it was

important to seek out people from Aboriginal and non-Aboriginal ancestry, and who worked in both Aboriginal and non-Aboriginal institutions for the interviews. The following list provides an example of the types of organizations and institutions with which the participants were associated. This list has been provided in order to illustrate the diversity of perspectives from which the data were drawn, while respecting the anonymity of the participants. Their views fell somewhere in between their personal and professional lives. In most cases, their professional lives were an extension of a personal interest or concern. While an understanding of the organizations with which the participants were associated was central in interpreting the data, it does not necessarily mean that these are the views of the organization itself.

- British Columbia Food Systems Network
- Northern Health Authority
- Working Group on Indigenous Food Sovereignty
- Carrier Sekani Family Services
- Prince George Farmer's Market
- Prince George Native Friendship Centre
- Queensway Community Garden
- Food in the City Task Force
- Healthy Eating Active Living (H.E.A.L.)
- Ministry of Agriculture and Lands
- Aboriginal Head Start
- First Nations Agricultural Lending Association

3.3 Ethics

All research projects involving human subjects at the University of Northern British Columbia must be approved by the Research Ethics Board before the project participants are contacted. A standard questionnaire is filled out describing different ethical aspects of the project, such as how participants

will be selected and contacted, how individual consent and confidentiality will be addressed, and how and for what length of time the data will be stored. In addition, a copy of the project proposal is submitted with this application. A complete application package for this project was submitted in March 2007. After minor changes to the consent form, the project was approved by the Research Ethics Board to proceed. I also sent a letter to the Lheidli T'enneh Band Council and the Prince George Native Friendship Centre outlining my research project and my contact information should there be any questions or concerns, as I knew ahead of time that some of my research would take place on Lheidli T'enneh territory and in the Prince George area. When referred to Chiefs and Council members, I first contacted the band office with a research statement (see Appendix A), and waited for further instruction as to the most appropriate way to proceed. No questions or concerns were raised, therefore I felt comfortable to begin contacting potential interviewees. All participants signed a consent form as required by the Research Ethics Board (see Appendix B) that included a description of the project and the nature of their involvement. In addition, I also provided a copy of my interview questions prior to the interview when it was requested.

3.4 Data Collection

The principle method for data collection was the use of semi-structured, in-depth interviews. For each interview, I used a list of interview questions to guide the discussion (Appendix C). In most cases, however, I allowed the

conversation to flow naturally and explored topics beyond my original questions. Thus, not all of my research questions were used in every interview. With each new interview, I reassessed the relevance of the questions relative to the previous interviews.

I contacted most prospective interviewees via email with copies of the consent form and a research proposal. This approach gave the person time to consider their participation without feeling pressured. When no email address was available, I made initial contact by telephone. I contacted 21 people in total; 13 responded and participated, 8 people did not respond to email or telephone contact. A convenient time and place was arranged with each person. The interviews took place either over the phone or in person and lasted approximately one hour. Some of the interviews were conducted at the participant's home or workplace, and others in a public setting such as a cafe. All of the interviews took place within the province of British Columbia between May and September 2007.

3.5 Data Analysis

The interviews were audio recorded to ensure accuracy and were later transcribed. A qualitative approach was used for the data analysis. Babbie describes the purpose of qualitative analysis as "discovering underlying meanings and patterns in relationships" (2004: 370). Lofland and Lofland suggest that patterns in the data can be observed by considering frequencies, magnitudes, structures, processes, causes and consequences (1995). Elements

of each of these ways of finding patterns in the data were employed during the analysis.

Each transcript was read numerous times, and during each read-through potential themes were noted. An initial list of themes was sorted into six categories after similarities and overlap in the themes were resolved. Next, the transcripts were re-read to identify sentences or paragraphs that coincided with these themes. Portions of text relating to each theme were then grouped into subcategories and the transcripts were read once again to ensure that all of the information relating to the chosen themes was included in the results.

Chapter 4

Results

The in-depth interviews generated a large quantity of textual data. As my research addressed a relatively unexplored topic in food systems research, I began without a clear idea as to how an interface between these two food systems would look. The interview questions were used more as a guide than as a script, to allow the topics and themes to unfold naturally. The interview schedule was adapted in accordance with any changes in focus or in my understanding of this topic. Therefore, while the participants were interviewed on the same general issues, the specific questions asked to each person were not always the same.

As a starting point, I began my research by investigating the interface between the two food systems in three food-related programs: a community garden, a community kitchen and a farmers market. The initial interviews questioned participants about specific activities that seemed to embody an interface, such as how each of the abovementioned programs worked, what activities they involved and how they related to each food system. Based on these three programs, I recognized the need to ask questions about the two systems more generally and to discuss the interface as a concept, rather than focusing on specific activities. While these initial programs reflected some degree of interaction, I was directed to examples of interface that involved relationship-building, collaboration and conflict resolution in ways that honoured the

uniqueness of each food system. Overall, the interviews helped to uncover different examples of the interface.

This chapter presents the data culminating from interviewing 13 key informants involved with traditional and alternative food systems. The word interface itself implies both similarities and differences, and the results revealed a back and forth interplay between these two poles. At times, the two food systems were spoken of separately while at other times the boundaries between them were blurred. A tension seemed to exist at the interface, as talking about the parallels between the two food systems prompted people to call attention to their dissimilarities, yet focusing on their differences brought the discussion back to points in common.

The data are presented according to themes arising from the interviews to discuss the parallels and differences between traditional and alternative food systems, and to better understand the interface. In the first section, each food system is discussed in terms of how they were defined or described in the interviews. Next, the participants' perceptions regarding whether or not an interface exists between the two food systems are outlined. This is followed by examples of the interface that were mentioned by the participants or observed in the field. The last two sections summarize areas of conflict perceived between the two systems and the participants' visions and suggestions about how they would ideally like to see people getting their food. To respect the anonymity of the people who participated in this study, their real names have not been used in this document. The data will be analyzed and discussed in the following chapter.

4.1 TFS and AFS defined by the participants

During each of the interviews, the participants were asked questions aimed to uncover the qualities that characterize and distinguish each food system. For instance, they were sometimes asked "how would you characterize traditional food systems", or "when you hear the term 'alternative food system' what comes to mind?" As well, they were asked what kinds of foods they considered to be traditional or alternative. When asking about traditional food systems, some of the participants asked for clarification as to whether the term was being used in the context of indigenous peoples. Also, although both food systems are local food systems, when talking about the alternative food system, the word 'alternative' was sometimes substituted for 'local' or 'local agriculturally based', or it would be explained by giving examples such as the farmers market. The term 'alternative food systems' is primarily an academic term; in practice, people typically use the term 'local food systems' in reference to the same movement. The word 'agriculture' was also used as a way to distinguish alternative local food systems from traditional local food systems[3]. The difficulty I experienced in describing alternative food systems during the interviews coincides with its general lack of definition in academic circles.

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[3] The extent and importance of horticulture and other 'agricultural' techniques used in traditional food systems have been underestimated by academics (see Suttles 2005). In practice, however, as well as in this paper, the word agriculture denotes not just an activity but the culture behind it - particularly Eurocentric modes of food production. Agriculture is representative of a particularly Eurocentric worldview wherein humans are thought to be separate from nature. Thus animals are domesticated and crops are planted in specific fields year after year, as opposed to the way landscapes are managed for game animals or certain crops are tended to in the wild in traditional food system.

4.1.1 Types of food

The two food systems were most clearly differentiated based on the foods that the participants associated with each, as summarized in Table 1. While some foods were clearly identified with one food system or the other, other foods could fit into both. For example, when asked what they considered to be local foods, two respondents mentioned root crops (also mentioned as alternative foods) as well as wild foods (associated with traditional food systems). Foods produced by Aboriginal agriculturalists could also potentially fit into both categories.

Table 1: Foods that characterize traditional and/or alternative food systems

Traditional foods	Alternative foods	Interface
Meat: moose, buffalo, elk, deer, caribou, beaver, groundhog, grouse, bison, rabbit *Fish*: salmon, crab, oolichan, fish eggs *Berries*: raspberries, soapberries, saskatoon berries, huckleberries, blueberries, cranberries, currants, chokecherries *Plants*: 3 sisters (beans, corn, squash), sunflower, sunflower root, bulbs, fiddlehead ferns, dandelions, burdock, mushrooms, stinging nettle, chickweed, sage, horseradish, wild mint, yarrow Bread: bannock	*Meat*: pork, cattle, buffalo, chicken, eggs *Fish*: salmon *Fruit*: melon, apples, raspberries, currants, cranberries, strawberries, rhubarb, sour cherry *Vegetables*: potatoes, carrots, turnips, beets, rutabaga, cabbage, broccoli, cauliflower, onions, cucumbers, tomato, zucchini, pumpkin, squash, beans, peas, wheat, radishes, leeks, corn, peppers *Greens*: spinach, lettuce *Herbs*: basil, dill, garlic, sage	*Local*: root crops, the cabbage family, potatoes, onions, turnips, beets, carrots *Aboriginal agriculture*: bison ranches, beef (#1 industry), hemp, black currants, market gardens – veggies, specialty potatoes *Wild*: mushrooms, raspberries, wild berries, fiddleheads, lambs quarters, dandelion greens

4.1.2 Language

The way that the two food systems were conceptualized or defined by the participants emerged from questions about their characteristics and the language used in reference to each. Table 2 summarizes words and terms used by the participants to describe traditional or alternative food systems.

Table 2: Words/terms describing traditional or alternative food systems

Traditional food systems	Alternative food systems
First Nations, Indigenous, traditional knowledge, hunting and gathering, game, wild agriculture, natural, culture, family network, family-oriented, informal	Greenhouses, farmer's markets, western foods, organic, community gardens, European, permaculture[4], crops, market

Comparisons were used to emphasize qualities that were unique to either system. For instance, traditional food systems were distinguished from alternative food systems in that they are 'personal' and involve 'informal networks'. Robert, an Aboriginal man who co-ordinates an emergency-food aid distribution program, described his own involvement in traditional food networking:

> I'm from the coast and I get lots of seafood...My uncle, he gets moose meat as well, sometimes caribou, elk and in turn we give him crab. There's quite a bit of networking going on, even from back home. One family gets access to seaweed, and I know people in the interior so I get moose. So I say "I'll get you some moose if you can get me some of that seaweed". There's still that traditional networking going on between people.

[4] Permaculture (derived from the words *permanent* and *agriculture*) is a framework for designing sustainable living systems modeled after self-sustaining natural ecosystems (Whitefield 1993).

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Mary, a Cree-Métis woman involved in teaching and sharing First Nations traditional cultural knowledge, explained while showing me how to can salmon and make different types of bannock, how she was preparing the salmon to bring as a gift for a wedding she was attending back home in Saskatchewan. Christine, a non-Aboriginal community leader involved both in promoting alternative food systems and in conducting research relating to traditional food systems, also described the prevalence of community networking in traditional food systems: "*if there was an Elder in the community who wasn't able to get traditional foods, the younger folks would bring food to them, make sure that they had moose in the freezer, make sure that they had enough fish*". Sandra, an Indigenous woman who is active with both traditional and alternative food systems, noted "*Indigenous people have always had trade routes throughout the province, whenever there's a surplus of certain items.*"

Other words used to describe traditional food systems were 'wild, not cultivated', 'bioregional' or 'something that naturally exists that we take advantage of in a sustainable way'. Barry, a Métis small-scale food processor who sells his products at various farmers markets, described traditional foods as "*foods produced pre-industrial revolution...before mass transportation and mass production*". Sandra related traditional food systems to resource management: "*Indigenous food systems and the way they're managed are really an important piece to protecting and conserving biological diversity*".

There were fewer responses characterizing alternative food systems. Alternative foods were referred to as 'local', 'anything grown close to home' or

'things that grow here well'. When talking about alternative food systems, the participants mentioned foods grown in greenhouses, sold at farmers markets, and management techniques such as permaculture, as examples. Ana, a non-Aboriginal woman involved with a community garden, described them as local foods, from seed to harvest. She stated that planting seeds obtained from elsewhere may be good, but will not necessarily be local. She contrasted this with her explanation of traditional foods as "*things that have always grown here before people brought seeds*". Robert described places to access local foods such as local retail stores that sell locally-produced fruits and vegetables, the farmer's market and a community garden.

There were also words that did not clearly fit with one food system or the other, or were used in reference to both. For instance, the word local was often used to describe alternative food systems, as stated above; however, Sandra wondered "*How can we educate people that indigenous food systems are local systems, how do we make those connections?*" Words and terms that were used in relation to both food systems are listed in Table 3.

Table 3: Words or terms used to describe both food systems

Local, cultivated, agriculture, seasonal, wild, produced, harvesting, gardening, food security, food sovereignty, ranching

Similarly, the words 'agriculture' and 'cultivation' made their way into discussions about both food systems. Michael, whose ancestry is not Aboriginal

but whose work entails supporting Aboriginal producers through funding, training and other services, described Aboriginal agriculture as 'a mix of both' indigenous and alternative food systems. On the other hand, some used agriculture as a means to distinguish the two food systems. For instance, Sandra noted:

> *Agriculture is important, but for indigenous people, food security or food sovereignty problems are unique in the sense that when you talk about these issues, we're talking about a lot broader ecological scales, and that some of the politics around it are a lot different, or a lot more complex and sensitive.*

Denise, a non-Aboriginal community health activist who co-ordinates a community garden, also used cultivation as a point of distinction, describing traditional foods as being 'wild, not cultivated' and alternative foods as 'cultivated'. Darryl, a non-Aboriginal man who works with First Nations communities to support self-reliant community food systems, recounted the sentiments of some of the community members that he works with, with regard to agriculture:

> *Even though the diets and the link between the emphasis on the traditional food systems is very important, the eating habits and the convenience of the existing foods is very much an active part of the lives of First Nations... I run into some problems sometimes when I tell the communities, when we are trying to promote the agricultural food production - including the traditional methodology of food gathering, some people say "no, we are gatherers and hunters, that is not the way we do food production in our communities because it is against the culture".*

In contrast, Barry used 'wild agriculture' in reference to traditional food systems. In response to a question asking whether he thought there is too much emphasis on agriculturally-based local foods, Barry replied:

*Potentially, but I think it's part of the transition as we are largely an
agrarian society in a wild landscape. Then again, First Nations natural
resource management practices are indicative of wild agriculture.*

Barry gave examples such as the burning of huckleberry patches to enhance

their growth and density. On a similar note, activities such as hunting and

gathering were often used to describe traditional food systems. However, Barry

recounted something an Elder had once told him: "*Hunting and gathering is a*

significant part of our culture... An Elder once told me, 'it's not our way of life, it's

a way of living'", as a way of saying that while hunting and gathering are central

to traditional lifestyles, people from all backgrounds can become involved in

these activities. He went on to say that getting more people out into the bush is

critical in order to conserve forested areas because there is potential to move the

forestry industry towards more sustainable and inclusive practices if more people

get out and use the land to harvest wild foods.

Discussions about the terms food security and food sovereignty presented

another example of both distinctions and parallels between the two food systems.

Advocates for alternative food systems typically talk about increasing food

security; whereas the phrase food sovereignty is more commonly used in

association with traditional food systems and is linked to individual and

community responsibility and communities having control over their own food

needs. Christine made a distinction between these two terms based on land-

use: "*I went to a big food security conference in Vancouver last year and it had a*

huge Aboriginal piece to it. And land conflicts did come up in that...that's where

food sovereignty comes into play as opposed to food security". Similarly, Lisa, a non-Aboriginal community leader in the public health sector, related food security to having access to farmers, to a healthy and sustainable supply of food, and other aspects such as composting, retailers and processors. She noted that thinking instead about food sovereignty can be a *"huge learning curve"* for some people, a *"harder concept to grapple"*. She pointed out that many Aboriginal communities are in crisis in terms of health, hunger and poverty. She stated that farmers are in a crisis too, *"but there's a different history around it...it's more easily integrated into other systems"*.

As Sandra pointed out, food security seems to imply access issues that can be rectified by an external force; in other words, that ensuring food security is the government's responsibility. In contrast, she described food sovereignty as:

> *...a responsibility more than a right or something that a nation state or a government grants you. It's a day to day practice of making sure you have enough food...Food is a gift, it's how we take care of that gift...I heard one Elder say that sovereignty is just about maintaining good relationships, whether it's a relationship within your own environment or the plants and animals.*

Yet, Sandra went on to explain how food security, depending on how it is defined and interpreted, could be used to mean the same thing. Denise mentioned noticing more people in alternative food circles talking about food sovereignty instead of food security, noting this shift in language as a similarity between the two food systems. Alternatively, Sandra noted that the term food sovereignty can be intimidating for some people because it is so political.

> *A lot of times sovereignty takes on sort of a political kind of connotation of nationhood, and I know that word's scary for some people...especially people who are really patriotic... Our nation, we've never signed or surrendered our land so we still think of ourselves as a nation in itself, but I think that makes some people feel uncomfortable because they say 'no, you're Canadian, you're from the nation of Canada.'*

She added that using the word 'sovereignty' rather than 'security' underlines an important issue for many indigenous peoples who do not identify as Canadians but to their own nations.

Lastly, ranching was an activity that several people noted as a conflict between the two food systems – as an activity typically associated with the alternative food system that can have negative impacts on traditional food systems. Sandra emphasized the importance of understanding both the similarities and differences between the two systems as it relates to ranching:

> *One of our Chiefs, he talks about how our people traditionally managed our food systems like a ranch, but it wasn't cattle – it was deer and it was moose...We knew when to burn certain trees to encourage forage for the deer and for the moose...they would come back really nice and green and bushy and there would be food for the animals that would in turn feed us. So it's just a bigger scale, and I know that ranching ... [in the interior] only makes up something like 3% of the total economy, but the cattle have a huge impact on our land and on our food systems. So really, for indigenous food systems, we're really talking about the same thing, but different animals – animals that were native to this land. It's just a matter of educating people on that and helping people to see that it's not that much different from ranching, it's just that now we're talking about biodiversity, we're talking about environment, preserving things that the Creator intended to be here.*

4.1.3 Food Concerns

Participants were asked to discuss their biggest food concerns. The responses, again, reflected issues common to both food systems, as well as

some that were unique to each. Topics ranged from food quality and safety, environmental impacts and the decline of rural communities to public perceptions of food and the role of government.

Quality and Safety

The quality of foods supplied through the global food system was a theme that recurred throughout the interviews. Jennifer, a non-Aboriginal woman who coordinates emergency food resources through an Aboriginal community centre, pointed to a general trend of obesity and diet-related diseases in British Columbia's Northern Interior. She described observing these particular health concerns upon moving to this region, and characterized them as aspects of a northern lifestyle where opportunities for physical activity are limited due to harsher weather conditions. Added to this is the fact that the most affordable and accessible foods, such as fast foods or 'junk' foods, are also lower in nutritional value and higher in sugar, further contributing to the growing health concerns. She added, *"if you're on a limited income, you buy as cheap as possible"*. For instance, lower income families may choose to purchase fruit punch rather than juice concentrate to save money, the former being higher in sugar and lower in nutritive value. She added that the availability and accessibility of these food choices low in nutritional values are problematic for First Nations peoples who are already at risk of diabetes. Jennifer expressed frustration that *"food security falls behind other major problems for our clients"* while so many other social problems take up nearly all of the staff's time and resources.

Darryl expressed his irritation about how Canada's Health Guide concentrates on food portions, but not on the quality or nutritional value of foods coming from different sources:

> If you look at the production systems of the existing globalized industrialized food systems, a tomato looks like a tomato after it reaches the supermarket shelf. But when it is harvested, it is harvested in no way looking like that, it is harvested very green because it is produced to withstand transportation. It is produced to make it look good, it is not really produced to provide nutrition and health.

Darryl mentioned, for instance, that for imported foods to endure long distance travel, they are harvested before they ripen, but that it is not physiologically possible for produce to develop fully when they are taken off the plant. His concern was that by promoting people to eat their fruits and vegetables "you're actually promoting people to eat the wrong foods." Veronica, an indigenous woman who works on the same emergency-food aid project as Robert, was also concerned about the lack of public awareness regarding proper food preparation methods, such as steaming vegetables instead of boiling them, and that as a result people are not getting all of the nutrients they need.

Food safety was another common response to the question about food concerns. Many participants felt uncertain or apprehensive about the chemicals added to food in the global food system, either from fertilization, pest control or preservation. Darryl noted that even when food is 'certified organic', there are still 'allowable' levels of chemical residues present, or the title may simply imply that organically-based chemicals were used. It is difficult for consumers to be reassured of the safety of their food when labels meant to help them make

healthy food choices are misleading or misunderstood. Some participants mentioned being worried or uncertain about the use of genetically modified organisms in agriculture. For instance, Denise brought up terminator seeds - seeds that have been genetically modified to prevent them from reproducing - that "*kill thousands of years of plant husbandry*". Darryl attributed the introduction of these seeds as another form of corporate control over the food system. Ana wondered what the effects of using terminator seeds would have on produce.

There were food safety concerns specific to traditional food systems, particularly with the impact of industrial activities on the health of the ecosystem in general, as well as on important traditional foods. Robert cited examples of development projects such as the MacKenzie Valley Pipeline where industrial activity threatens the quality and safety of traditional foods and contaminates water resources. He noted that industry has huge impacts on traditional foods like elk and caribou, and how toxins accumulate up the food chain and come back to humans themselves. He also gave the example of Kemess North mine, where the mining company proposed to dump tailings into a lake used for fish. "*I don't see how people can say 'sacrifice this lake, it's one of many'. But it's all linked. It goes into the river system and the fish.*" Recounting the change in water quality in her home community, Mary explained how "*the water was good, now it is poison. Now you have to be careful where you get your water*". She also mentioned being concerned about people polluting the environment by dumping garbage, such as oil and old cars, in the bush.

Environmental impacts

Along with the negative health impacts associated with the global food system, many participants spoke about the resulting environmental impacts. Long distance transportation was mentioned often. Even organically produced foods can have negative environmental impacts if the food has to be imported. Michael wondered, *"even if it is organic, if it is coming from Chile or California, how green is it?"* Locally-produced food often suffers the same fate, when it is transported unnecessarily for certification or inspection. Denise pointed to current changes in meat regulations that state that people can no longer buy meat from a non-certified butcher or directly from a farm – all meat has to be slaughtered at designated plants for inspection. However, in many regions, such facilities are far away, requiring the meat to be transported to the plant and back before it can be sold. She mentioned how dairy products are already on a quota system and worried that similar regulations for produce would soon follow. Darryl illustrated how attempts by one First Nation to build community capacity by starting an organic potato operation were complicated due to unnecessary transportation and centralized distribution systems:

> *We did an organic certified potato program, excellent potatoes, this is based close to Smithers, and we are trying to sell, we're helping the First Nation to sell ...the potatoes in Smithers and Prince Rupert... We go and talk to the Safeways and the Save-on Food, and they say no, we cannot buy it because they are all involved in centralized food production. So, because it is not just half an acre, it is a huge amount, so we find someone to help the First Nation out in Burnaby ... who specializes in organic food distribution. So from [close to Smithers] truckloads of potatoes have to go... all the way down to Burnaby...One thing is they do the packaging and things like that.....And 2 weeks after that, that same potato that goes into the supermarkets in Smithers and Prince Rupert and Terrace and all those places...It has to go 800km to the south, and then*

*come back 800km to the north...What is helping the local communities
develop their economy and create the jobs? This farm had to go to
Burnaby and help the middleman make all the money...so you can see
the conflict I have with the existing food systems. That's another big
problem I do have.*

Participants also noted that producers are now being encouraged to grow
crops for alternative fuel sources, essentially forced to move towards cash
cropping to stay in business. Yet, as Denise asked - what happens to the land
for food? Is this building a sustainable food system? Sandra worried that the
current food system does not take into account future generations: *"there is food
today, but is that food going to - are our children going to be able to get that food
20 years down the road?"*

Social concerns

Many participants linked the globalized food system and centralized
production with the decline of rural areas. Robert pointed to the abundance of
products from the United States sold in the supermarket and noted that *"it makes
it more difficult for local growers...to distribute their product when everybody else
is buying imported goods."* Denise questioned how imported foods can be so
much cheaper and added that *"the reality is that we don't pay the real cost of
food in grocery stores, we expect cheap food"*. She noted that in 2006 farmers
were making the same wages as in 1972 and that *"60% of farmers have another
income because you can't make a living from farming"*. Veronica had concerns
about food coming from different places and not knowing who touches it or what

happens to it along the way. Barry noted a general lack of community self-sufficiency. Darryl stated:

> There is a gradual deterioration of the rural communities. The centralized production and distribution systems do not really lend themselves to rural communities' existence.

Lastly, many responses highlighted public perceptions and food values. Denise commented on how the global food system has changed the public's expectations of food, and as a result, people expect food to be cheap. Darryl discussed how the true cost of food is not reflected in the prices we pay at conventional supermarkets, yet we pay the price in other systems such as the health or waste management sectors:

> Take one example of solid waste management, I'll give you the example of GVRD their solid waste management is 90 million dollars a year, and much of that solid waste is created...packaging, the plastics and the paper and things like that, because of the convenience they've created. And that...costs 90 million dollars a year. If it was a rural based community food system you wouldn't have that problem and that solid waste...If you factor in all of these costs, the existing food system can never ever be cheaper than the rural-based community based food systems.

Ana described a lack of respect for or connection to the food we eat and wanted it to be more of a government priority. She reflected on seeing the effects of children not being connected to food cycles, and linked this to obesity, and other health problems such as spiritual issues. Given the lack of public awareness and concern regarding all of these food issues, some wondered how to successfully promote local food systems. Denise asked: "*people buy what they can afford - food comes last on the list, so how do you tell people the benefits for local food are worth paying more?*" Darryl agreed that it is not that

easy, and that *"people have to make sacrifices because they have to let go of the convenience of the global food system"*.

4.2 Is there an interface?

During the initial interviews, I asked the participants questions about both food systems hoping that by characterizing each system, I would come to understand their similarities and differences and uncover examples of the interface. After time, I started to think differently about my research question and wondered if an interface existed at all. Thus, for later interviews I began to ask the interviewees directly whether or not they felt there was an interface between traditional and alternative food systems. When asking this question I used the words 'relationship' and 'interaction' interchangeably with the word interface.

Some respondents did not feel there was an interface because the two food systems differed so greatly in their value systems and on how they are structured relating to their distinct cultural backgrounds. Lisa, in describing a local food initiative to develop a directory of where local products can be bought, noted the absence of Aboriginal sellers on the list. She thought that the emphasis on market - on buying and selling food - contributed to the separation between the two systems and suggested that perhaps instead of a 'buy' local directory, there should be an 'eat' local directory. The two systems were further distinguished in their organizational structure, stemming from their respective cultural backgrounds. Jennifer contrasted the two in terms of the individualistic

tendencies of the Eurocentric food systems to traditional food systems that have a more community-oriented structure.

Christine, in answering a question about how foods are promoted in each system, noted:

> I'll use the term western foods versus traditional foods...(When) You talk about traditional foods to a First Nations person, (if) you ask them directly what kind of traditional foods they eat, you get a long story about the history of that food and how they learned to catch the food or hunt or fish or trap or gather and family stories. But if you ask them about western foods, they just list what they eat. There's a big disconnect between the two.

Another reason for the perceived lack of interface had to do with a time lag with regards to how each system has been promoted to the public, according to Lisa. She noted that the alternative food movement took root in northern British Columbia nearly 15 years ago, and that it has taken this long to reach the point of developing a food policy council; whereas the momentum to promote traditional food system in the health sector has only started to build over the past 2 to 3 years. She speculated that this time lag puts the two systems at different stages of development, in terms of public outreach, and gives them different points of focus, thus little common ground for dialogue. Christine pointed out how traditional food systems are being promoted within First Nations communities, but not necessarily outside of them as they are more informal, personal and family oriented.

Lisa explained how the two systems are further fragmented due to discrepancies in how government funds are allocated. While the alternative food system is benefiting from provincial funds such as the Act Now program, most

Aboriginal organizations are funded through the federal government. She

suggested that if funds were coming from the same source, there would likely be

more interaction and dialogue between the two systems. Darryl mentioned how

in certain areas, a lack of interaction between the two food systems could arise

when First Nations are involved in the treaty process, as it can be long and take

up a considerable amount of the band council's time and resources.

Respondents also mentioned the possibility of an interface. Darryl

underlined the importance and necessity of an interface by saying that even for

the communities that are the most engaged in their traditional lifestyle people eat

a mixture of traditional and market foods; therefore, it is impractical for there to

be no interface or relationship between the two food systems. He added that

local foods comprise both traditional foods and agriculture, and that there is a

need for both. Sandra mentioned that ecologically speaking, there is an interface

in that both food systems imply healthy food and healthy environments, but also:

"if you're thinking socially, if you're looking at the social movement to...organic

gardening, there hasn't been much interaction between indigenous and non-

indigenous people". She went on to explain how a couple of Elders in her

community have farmed the land 'for as long as they can remember' and how

many people rely on traditional food gathering as well as gardening, especially

those with lower income. She concluded by saying:

> *Yeah, there is, depending on what level you're talking about, there's an*
> *interface between the local and traditional food systems...but ...the*
> *movement itself...on a larger scale (commercial farmers), there's not*
> *really a lot of interaction between traditional food systems and what's*
> *going on there.*

4.3 The interface 'on the ground'

4.3.1 Examples of interface – programs and activities

Based on information obtained from the interviews and from my

participation in two conferences relevant to this research, several examples of

'interface' between the two food systems emerged. They are discussed

according to the order in which they are listed below:

- Queensway Community Garden
- Farmers Market
- Homelessness Initiative (CSFS)
- Aboriginal Diabetes Conference – LARDI
- First Nations Agricultural Lending Association
- Ministry of Agriculture Community Food Systems Program
- BC Food Systems Network – Working Group on Indigenous
  Food Sovereignty

Queensway Community Garden

I began this project by exploring the interface in three food initiatives: a

community garden, a community kitchen and a farmers market. The community

garden appeared to represent some kind of interface as it was used by Aboriginal

and non-Aboriginal groups and incorporated both traditional and alternative

methods. As gardening - in the sense of producing vegetables from seed on the

same plot of land year after year as opposed to managing and cultivating crops

in the wild - is not an activity typically associated with traditional food systems,

the community garden seemed to reflect a mixture of elements from both food

systems. The garden was primarily used and managed by different agencies,

while a handful of plots were rented out to families or individuals. The plot used

by the Native Friendship Centre, for instance, was managed and tended to communally, reflecting methods closer to traditional ways, as opposed to the more European style of individually managed plots that is typical in community gardens. The coordinators at the Native Friendship Centre intentionally designed their plot to be managed in this way in order to retain some Aboriginal values and customs in their program. Some of the other agencies managed their plots communally as well. In addition, some traditional crops were cultivated in this community garden, such as berries, sunflowers and various herbs.

Farmers Market

Farmers markets are venues where local producers and processors can sell their goods directly to the public, in a face-to-face, personal setting. This kind of activity fosters relationship-building between vendors and consumers, and creates a sense of trust and security. It also helps to build a consistent clientele for local producers. Barry described how he began selling his product at a local farmers market:

> *I wanted to test my product in quality and pricing in the market place and increase my presence in the market. So that was the cheapest place to do it, and it was a face-to-face contact with potential clientele. I was making jam as a hobby with grandpa – that's how I started. Grandpa told me to go do the Quesnel market, and that's when I started believing in what I'm doing.*

The farmers market observed in this study had few vendors selling traditional foods, with the exception of three booths where wild berry jam, bannock and fiddle heads could be found. In other regions, traditional foods may have a

greater presence at farmers markets as some of the other participants made

mention of Aboriginal producers and gardeners using farmers markets to sell

their goods. Food safety regulations could potentially pose a barrier to selling

meat-based traditional foods at farmers markets, as many of the participants

mentioned the challenges of using traditional foods in schools, programs, or even

selling them at local events.

Carrier Sekani Family Services

An urban homelessness initiative run through Carrier Sekani Family

Services is another example of a program that incorporates both traditional and

alternative foods when possible. The purpose of this program is to provide

"support for those who may not be in a private living space or need support to

keep their present living space" (Carrier Sekani Family Services 2007). Food is

supplied through the Smokehouse Kitchen that operates out of the Prince

George Native Friendship Centre and teaches people how to prepare food in a

commercial kitchen. The coordinators noted restrictions and laws preventing the

kitchen from bringing in and distributing traditional foods, and mentioned looking

for alternative ways to incorporate traditional foods into the program: *"I actually*

want to look into fish and wildlife people this year and see how we can

incorporate more traditional foods into our program...See what policies are

keeping the laws in place".

In addition to the food prepared by the Smokehouse Kitchen, fruits and

vegetables are bought separately to add nutritional value to the foods being

distributed. The coordinators shop for these items at a store known to sell locally produced foods, and noted sometimes running into the head chef from the Smokehouse Kitchen while shopping. Foods produced in the local community garden are also incorporated into this program and distributed to people and families in need. In this way, this particular program is an example of the two food systems working together.

Northern Aboriginal Diabetes Conference - LARDI

At the Northern Aboriginal Diabetes Conference in 2007 I learned about a project initiated by two land-use planners that aimed to improve the health of Aboriginal peoples by ensuring the health of the land. The Lands and Resources Diabetes Initiative (LARDI) emerged from the recognition that rates of Type II Diabetes are greater among Aboriginal communities than the rest of the Canadian population. The LARDI project asserts that healthy land and healthy people go hand in hand. The purpose of this project is to reduce the number of cases of Type II Diabetes in Aboriginal communities by "increasing the availability of traditional and quality foods" (Collier and Koop 2007: 1). The LARDI project has three components. The first is to strengthen existing networks of food acquisition and distribution through a variety of programs, such as hunting groups, food-based businesses or cooperatives, community gardens or greenhouses, and culture camps, to name a few. Each participating community will determine which activities best suit their needs and draw on their strengths. The second component involves assessing the current rate of Type II Diabetes in

the community and monitoring the change over time. The third component involves land and resource management to maintain and enhance plant and wildlife habitat to ensure a sustainable food source.

The LARDI project proposes to support both traditional and 'quality' foods by merging strategies from both systems. For instance, it promotes activities such as hunting, fishing and gathering as well as gardening and forming food cooperatives. It also promotes collaboration and the building of alliances between hunters and ranchers to provide a source of local meat when populations of wildlife are low. The project's primary focus is on Aboriginal communities, because "as T2D strikes Aboriginal peoples 3-5 times more often than non-Aboriginal peoples, it is 3-5 times more urgent to discover a method of reducing the rates of the disease" (Collier and Koop 2007: 1). While the ultimate goal of LARDI is to reduce Type II Diabetes in Aboriginal communities, land-use management is a huge component and is believed to be the key to its success and longevity. The project's activities aim to promote environmental stewardship, economic development as well as health. LARDI emphasizes that people engage in dialogue about food from many entry points – health, environment, or economic livelihood – but that the solutions must support and integrate all three.

First Nations Agricultural Lending Association (FNALA)

The First Nations Agricultural Lending Association (FNALA) has been providing services such as financial planning, seed crops, and support and training, to Aboriginal producers in British Columbia for 30 years. The types of

foods being produced include bison ranches, beef, vegetables, berries, and specialty potatoes, to name a few. While FNALA concentrates primarily on supporting agricultural ventures, the organization is open to supporting programs that involve traditional activities. For instance, Michael, who has been involved with FNALA for many years, mentioned that in the past the organization has assisted wild harvesters and people interested in starting a hunting program. Many of the producers sell their products through their local farmer's market, and some are trying to sell through specialty stores. Although the FNALA office is situated in Kamloops – one of the few municipalities in the province that has its own Food Policy Council - Michael claimed that aside from some meetings, there is not much of a relationship between the two organizations.

Out of the FNALA office, in partnership with the Ministry of Agriculture, there is an effort to develop a First Nations food certification program. Darryl stated two reasons for this program. The first is for quality control purposes, and the second is to *"give the First Nations an edge, in a way that it will be branded First Nations...just like organic foods...to give that edge in the market...By developing this First Nations distinct food chain, there will be niche markets"*. FNALA collaborates with agencies at the municipal, provincial and federal level. For instance, to help find funding for producers, they can look to Community Futures, or various regional Aboriginal Business Development Societies. They can also draw technical support from larger organizations such as Agriculture Canada.

Ministry of Agriculture - Community Food Systems Program

A form of interface exists in a community food systems project run through the BC Ministry of Agriculture and Lands. This objective of this initiative is to promote strong community food systems among First Nations across British Columbia by supporting and promoting agricultural production. While the focus is not primarily on traditional food resources, they are included in many of the projects. The coordinators see community self-reliance as the first and primary goal of this project, but also see value in supporting food production to be sold commercially, both locally and internationally. Currently, First Nations bands all over British Columbia are involved in two of such projects; one is to produce black-currant wine and the other industrial hemp. Other projects include establishing community gardens, and the development of an agricultural training program.

BC Food Systems Network and the Working Group on Indigenous Food Sovereignty

A strong example of relationship-building between the two food systems on a provincial scale can be found within the BC Food Systems Network, founded in 1999 to "link people all over the province involved in community-level action related to food" (BC Food Systems Network 2007). The network reaches across disciplines, cultures and age groups and adopts a holistic approach to food-related issues. Its mission is to "work together to eliminate hunger and create food security for all residents of British Columbia" (BC Food Systems

Network 2007). The main activities of this organization include networking and an annual general meeting to continue to "share insights, initiatives, strategies and critical analysis of events in the food system and our own work" (BC Food Systems Network 2007). As certain Board Members were continually raising issues about Indigenous food systems, emphasizing the unique needs and issues for Aboriginal peoples with regard to food, it became evident that a separate task force dedicated to indigenous food sovereignty was needed. Thus, in March 2006, the Working Group on Indigenous Food Sovereignty was established. In September 2006, the 1st Annual Interior of B.C. Indigenous Food Sovereignty Conference was held in British Columbia's Southern Interior.

The relationship between the BC Food Systems Network and the Working Group on Indigenous Food Sovereignty represents an interface between the two food systems that is collaborative. Both groups recognize the uniqueness of each system, but at the same time underline the need to work together to achieve food sovereignty and to build sustainable food systems for all of British Columbia (BC Food Systems Network 2007). Conferences and annual events help to share knowledge and resources and foster networking opportunities between the two food systems. The yearly gatherings in Sorrento have been attended by a diverse group of people who work in different sectors (i.e. public health, environment, forestry), at different scales (regional, provincial, federal), and from different backgrounds (Aboriginal, non-Aboriginal, students, academics, government officials, activists etc.). It is an event that raises issues pertinent to both food systems, and actively seeks ways to work together. This year's

gathering included workshops given by Secwepemc Elders, and a full day

dedicated to discussing indigenous food sovereignty. The issues brought up in

these discussions were similar to those mentioned by the participants in this

study.

4.3.2 Other examples of interface – Barriers, policy and conflict

Other examples of an interface surfaced in responses to specific interview

questions as well as in topics brought up by the participants. These examples

are discussed in three sections. The first section outlines the responses to

questions about food policy, the second describes similarities and differences

between the two systems relating to barriers, and in the third, areas of conflict

between them are discussed.

Food Policy

All participants were asked a question about food policy. For instance,

they were asked what kinds of policies they would like to see changed, or the

issues they would like to see addressed if a food policy council were established

in their region. Some people mentioned roles they felt the government should

take more responsibility for, such as field to school programs that reconnect

children to the food system, or public outreach and education to remind people of

the true cost of food.

Many participants felt that municipal and provincial governments should

enact policies that prioritize local foods over imported foods. Denise felt that not only is there a lack of support from government, but that the government itself acts as a road block for local producers and processors through the implementation of food safety regulations that seem to favour larger ventures. She wanted to see the government recognize food values other than economic and suggested many ways the government could support local food systems through land use management, such as incorporating sustainable landscaping into city planning by creating edible landscapes or planning cities to include spaces for food production. Urban agriculture could become a part of municipal plans, and getting the support and involvement of city planners. Barry, whose business relies on wild non-timber forest products, suggested policies that "*make harvesting a bigger priority than industry*".

Some respondents distinguished the need for policies unique to traditional food systems. Sandra suggested that the government could recognize the value of indigenous food systems in managing and conserving biodiversity, and set aside adequate tracts of land to support traditional activities. She also mentioned enacting government policies that support people harvesting traditional foods or allocating adequate amounts of funding for indigenous people to be included in policy discussions. Robert proposed "*some kind of policy where you could...incorporate traditional foods into our local economy*".

It was suggested that the government could also have a greater role in promoting healthy food choices in public institutions such as schools, hospitals and government buildings. For instance, Denise suggested that links could be

made between local food producers and processors and these facilities to incorporate local food into public institutions. Furthermore, Sandra discussed how current policies surrounding forestry and agriculture could be more compatible and include food and cultural values. Also, support for local food processing and certification, in the form of infrastructure (i.e. processing facilities or abattoirs), was thought to be beneficial for local processors.

In addition to changing or instituting government policies at the municipal, provincial or national level, Sandra proposed personal policy as an important component of strengthening local food systems, traditional or alternative:

> *Elders, traditional harvesters, believe that the action really has to be in practice...When you think about policy, you can have a personal policy and that can include your practice, but then you've got policies ... at a community or municipal or provincial level that can be so totally different from what's actually happening.*

A personal policy could entail more people going out and harvesting food, using the land, or gardening in their backyards. It also speaks of the power of consumer choices in shaping our food systems and underlines the importance of a personal recognition of the true cost and value of food along with all of the work that goes into bringing food into our households, as noted by Denise.

Barriers

Although there were no questions specifically on the topic of barriers, the subject arose several times during the interviews. Barriers were discussed in relation to the difficulties around incorporating both alternative and traditional foods into local programs, institutions, events and the local economy. While

increasing the presence of both types of local food represented a shared challenge, some barriers are unique to traditional foods.

Many traditional foods, such as wild game and fish, pose additional challenges when confronted with food safety regulations that do not recognize traditional ways of preserving and processing food. Lisa noted the difference in trying to get local food into a school versus trying to incorporate traditional foods into a field-to-school lunch program. She described how it was easier to include locally produced salads and vegetables into a non-Aboriginal school in Quesnel than to incorporate traditional foods such as smoked salmon into an Aboriginal school in Hazelton. Food safety regulations prohibited the inclusion of meat products, but allowed berries with a particular kind of storage facility. She pointed out that traditional food storage is different from conventional food storage, and also different from the needs of the health officer. She noted that the environmental health officers want to help farmers and Aboriginal communities, but have to adhere to provincial regulations. She wondered how to best ensure food safety in a traditional way. Furthermore, she wondered how, at a policy level, to support food localism as well as food sovereignty.

Mary described similar barriers to incorporating traditional foods into a First Nations cultural program for children. Even with the consent of each child's parents, the coordinators were not allowed to serve the children wild game, it has to come from the store according to Health Canada. Traditional foods can however be served if there is a potluck, but not brought into the schools as a part of the program.

Robert recounted a story about his wife wanting to sell traditional foods at an Aboriginal Day event, but found it difficult due to food safety regulations:

My wife cooks traditional foods, so she wanted to cook a bunch. When applying for the one day permit to sell that product at Aboriginal Day...they (food safety) were like 'no, no, no, can't sell it'. She got to the point where why bother, because it just came down to serving rice and fish. She considered she was lucky because they asked her where she got the fish from, cause it didn't come from the supermarket it came fresh out of the ocean from the Coast, and salad, which had to be right directly from the bag from the supermarket. She was a bit disappointed because these are the kinds of things that she could share with other people. So that's an example of the barriers.

In addition to the barriers that prevent the inclusion of traditional foods in local events and programs, many people mentioned barriers to accessing traditional foods in general. Mary stated that in urban centers, unemployment and poverty can be an impediment to buying costly equipment like vehicles and hunting equipment. She also said that while some Elders still go out to hunt or fish, if they've lived in urban areas for long periods of time or have health problems, they don't always want to go anymore. Lastly, she mentioned how it can be harder for people who have gone to residential schools to stay connected to their traditional ways.

Sensitive issues around sovereignty, land claims and Aboriginal history were also believed to prevent dialogue between the two food systems, due to mistrust or a lack of understanding. Lastly, because the two food systems are a reflection of the cultural and social structures from which they originated, Lisa pointed out that it can be difficult for someone participating in one of the two food systems to identify leaders in the other, and vice versa.

Conflict

All participants were asked whether they felt any conflict existed between traditional and alternative food systems. The responses to this question were mixed. Areas where conflict was perceived mostly revolved around land use. As Christine stated, *"when you look at land use, you're gonna have conflict I think. Whether that's specific to food cultivation or not, I don't know"*. Barry believed that ranching creates tension between ranchers and traditional harvesters because of predation on livestock and because it fragments the landscape, disrupting migration routes for wildlife. Sandra mentioned how cattle grazing can destroy important traditional root crops and berry patches by compacting the soil. She also explained how the privatization of land was a source of conflict because land dedicated to commercial farming or ranching restricts access to indigenous resources for hunting and gathering:

> *I was picking saskatoons [berries] and there was a really nice big wooded area. And right alongside it there's this huge ranch, this huge hay field, and I can envision that that one field would have been...our people would have had more access to good picking ground to sustain all their roots, and that doesn't exist anymore.*

Another source of conflict between agriculturally-zoned land and traditional food systems mentioned was a disregard or lack of respect for the history of the land before colonization, before it was used for agriculture. For instance, Jennifer gave an example of huge sections of land that were owned by First Nations families and taken over by the government when all members of the family had passed away. The land was later sold, changing the land ownership from Aboriginal to non-Aboriginal hands. Sandra described a similar situation:

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I know that with the agricultural land ... and proposals to turn agricultural lands into developments, ... down in the Fraser Valley... there's been a group of farmers and activists who are opposing the provincial government, the way they zone the agricultural land. The indigenous people are also saying, well yeah, the farmers have a right to be upset because the land is going to development, but what about indigenous people who have always been on that land... A lot of the agricultural land down on the coast used to be used, especially the Stó:lō, ... for what they call... the Indian potato. You don't see that anywhere and it has been very much endangered. But I think an alternative local food system will take that into account ..... There are some models of that. I know there's a rancher up in Merritt who won an environmental stewardship award because he manages cattle in an environmentally friendly way that recognizes migration of the indigenous animals, deer, moose and stuff. He grazes cattle in a way that wasn't harmful... So it can be done and I'm starting to see that more.

Lastly, some people felt that a source of conflict could be attributed to a difference in values or end goals. Using fishing as an example, Denise suggested that in commercial fishing *"you catch and only stop because you'll get fined"*, whereas with traditional harvesting, you take only what you need and profit is not the goal.

A number of people saw no conflict between the two food systems. For instance, Robert replied *"I don't think so. If they could actually work together that would be good"*. Similarly, Michael saw opportunities to be more integrated and complement each other, and Barry responded: *"I think they should complement each other as part of the local movement"*. Both Denise and Lisa believed that land-use conflicts are associated with industry or commercial ventures, not with local farmers. Lisa added that farmers are not encroaching on Aboriginal land, although historically this may have been different. Jennifer stated: *"if you're not doing things to harm game, there is room for both if all users are considered"*.

4.4 Visions for the future

Participants were asked how they would like to see people getting their food. This question was originally designed to gain insight into how the participants envisioned solutions to their expressed food concerns, without making reference to any particular food system. It also helped to give perspective to the rest of their responses and reveal something about their food values. Participants described the types of foods or sources of foods they would like to see supported, and emphasized the need for public education and knowledge-sharing, the importance of personal choices, accessibility and government support. Nearly all emphasized the importance of locality.

Various ways of acquiring local foods were suggested, including farmers markets, backyard gardening, food co-operatives or other independent locally supported food stores, and hunting and gathering traditional foods. Both Barry and Sandra made distinctions between agricultural and traditional aspects of local food, and replied that they would like to see people getting their food *"in the wild and through local agriculture"* and through *"combinations of organic gardening and traditional food harvesting"*, respectively. Sandra mentioned a need to adapt in order to overcome current challenges in supporting traditional food systems and stated, *"even if every Aboriginal person went back to harvesting their traditional food, there probably wouldn't be enough for everyone. We have to admit there are so many challenges"*. Robert acknowledged some challenges exist for local farmers who earn low wages and have to compete with big business.

Increasing education and information sharing was another common response to this question about visions for the future. Some respondents emphasized the importance of raising public awareness of the benefits of local food. Many people noted the importance of events or programs that not only educate the public, but also unite people for a common cause and facilitate the sharing of knowledge and resources. Ana suggested a community work-share program to bring the community together so people could meet. Barry's suggestions were to create bush immersion or skill-building programs for youth and to educate people about preserving food as a critical component of northern food systems in extending the availability of local foods throughout the winter months. Sandra responded that she would like to see *"more social networking and social learning"*.

To help strengthen traditional food systems, Mary suggested holding more gatherings such as the annual Pow Wow that use more traditional foods to try to bring that connection back. She mentioned taking her grandchildren on nature walks to teach them about traditional ways and how to survive in the bush and spoke of her personal philosophy with regards to knowledge-sharing: *"whatever I know to the best of my knowledge, I'll share it"*.

The accessibility of quality foods to all people was an important aspect of how participants hoped to see people getting their food. Sandra suggested that the accessibility of quality foods that tend to cost more (such as organic foods) could be improved for low income households by buying in bulk and sharing it with others. Denise spoke of making local foods more convenient: *"I want to be*

able to go to the grocery store and buy anything that grows in PG, without that food having to travel to be certified". Lastly, the power of consumer choices in transforming the food system was underlined by Sandra: *"I guess it's unrealistic to think that we can all stop buying food from the grocery store, stop giving into this corporate control of food, but I think we can start by being a bit more selective in our food choices and doing our research".*

Chapter 5

Discussion

The interview data provided many examples of interface between traditional and alternative food systems, bringing the discussion back to the question that initiated this study: what is the interface between traditional and alternative food systems? This research question had two components: the first examined the assumption that an interface exists at all, and the second explored what this relationship looked like, if it did exist.

5.1 Is there an interface?

As each food system is distinct and unique, the first component of answering my research question involved a critical examination of the interface as a concept. With the recognition that my overall research question was based on the assumption that an interface exists, the first question to consider was to what extent this assumption was valid, in other words – is there an interface between traditional and alternative food systems? The interview responses to this question could be summarized as: yes and no, depending on how you look at it. As two largely local systems, there seem to be reasons to assume that an interface exists, as they share some common visions with respect to environmental stewardship. Furthermore, today many indigenous diets consist of both traditional and market foods. In actuality, are there interactions between the people participating in these systems? The responses to this question suggest

that while there are some examples of interactions between the two, they represent the beginnings of a growing relationship. Furthermore, the answer to this question varies according to different perspectives. While there is little interaction and communication between hunters and ranchers, or farmers and traditional harvesters, at the level of regional or provincial programs this dialogue is beginning to take place between community leaders of each food system. So, it seems as though these kinds of relationships are starting to develop. However answering the question as to whether or not an interface exists seems to hinge on the perspective held and to how the interface is being defined.

5.2 What is the interface?
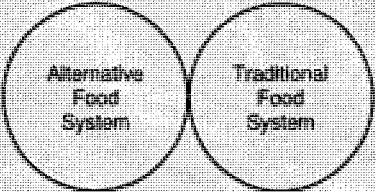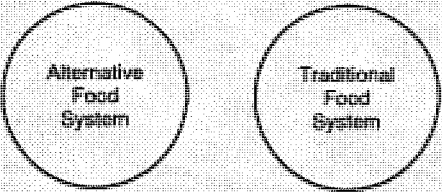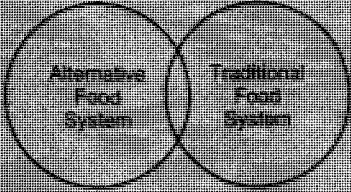
After reviewing and analyzing the data, it became apparent that different types of interface existed between the two food systems. There seemed to be a difference between A) two systems that function independently but happen to interact on occasion, and B) two independent systems that overlap where they share common ground. These two options coincide with the two differing definitions of 'interface' depicted in the diagrams mentioned earlier (see Figure 2). A third possibility emerged from the interviews – C) two distinct systems that intentionally collaborate, or work together and resolve conflict.

Figure 2: Three types of 'interface'

A	B	C
Alternative Food System Traditional Food System	Alternative Food System Traditional Food System	Alternative Food System Traditional Food System
Interaction	**Overlap**	**Collaboration**
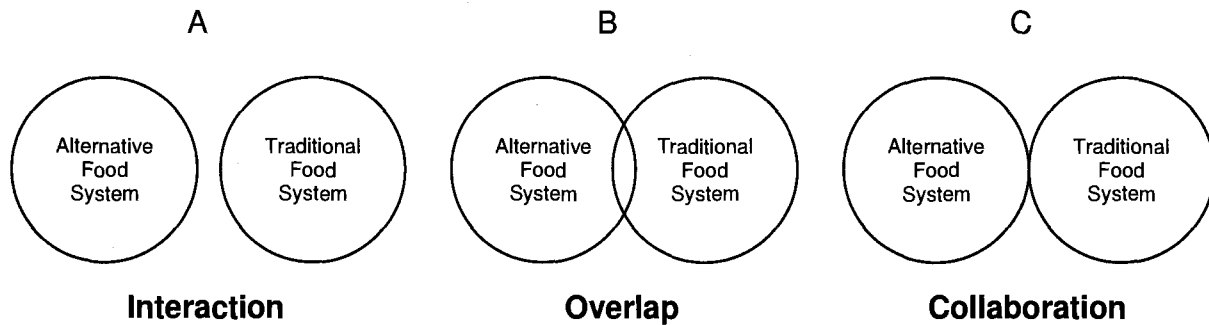
Each of these possibilities describes a relationship with different qualities and implications. Drawing from the examples mentioned in the interviews, attributes of each type of interface were identified to better understand the implications of these different ways of relating. The qualities are summarized below in Table 4.

Table 4: Three types of interface

Collaboration	
Alternative Food System / Traditional Food System (overlapping circles)	• Deliberate networking between systems • Collaboration around local food events, education and outreach and policy change • Communication between hunters, ranchers, farmers, gatherers, fishers etc. • Local food events and discussions involve representation from both systems • Working out any differences and conflicts
Interaction	
Alternative Food System / Traditional Food System (separate circles)	• Within each system there is a general awareness and knowledge of the other • Community leaders know each other • There may or may not be dialogue between leaders of both systems • Conflict
Overlap	
Alternative Food System / Traditional Food System (overlapping circles)	• Some shared values and concerns • Distinction from global food system • Unclear boundaries at the interface

Collaboration is the first type of interface described in Table 4. While both

food systems remain distinct in this type of interface, they are recognized and

joined as important components of the local food system. In this category,

deliberate networking takes place between the two systems and efforts to

strengthen and enhance the local food system as a whole do not compromise the

unique characteristics of each system. A good example of this is the work of

both the BC Food Systems Network and the Working Group on Indigenous Food

Sovereignty. Both of these initiatives work on a provincial level to raise

awareness about and promote healthy food systems - the former emphasizing

the alternative food system and the latter traditional food systems - yet they

collaborate with each other through networking, information sessions and workshops relating to both alternative and traditional food systems at annual gatherings. The LARDI project and the urban homelessness initiative were other examples of the two systems working together, as both alternative foods and traditional foods were sought in both cases.

The second type of interface refers to a relationship that involves *interactions* between the two food systems, but lacks the aspect of intentionality and working together that defined the first. These interactions could embody either a positive or negative relationship. Situations where the two food systems conflict with each other, such as tension between ranchers and traditional harvesters, fit into this category. It was also observable in activities or programs that seemed to involve both systems, but after closer examination they displayed more of a coincidental relationship than one that was intentional. This category also describes the kind of relationship where the community leaders of each food system are aware of and communicate with each other, but are not intentionally working together. In the case of the multi-agency community garden, there was an effort to share resources and information for a common goal (which in this case was food security), but lacked a clear intention to support both food systems.

The fundamental difference between the first two types of interface is the aspect of intentionality, where the first is reflects a collaborative relationship while the second is coincidental or conflicting. In each of these two examples, the food systems remain independent, yet they either collaborate or interact with each

other in a way that retains clear definitions and boundaries between each system.

The third category that depicts a shared space between the two systems is less clear than the former examples. Where the boundaries between the two systems dissolve in the middle - at the interface - it is difficult to identify which food system is being played out. During the interviews, I sensed a tension from the people I spoke with when referring to the interface as this overlap. On one hand, when I asked questions about similarities some people became concerned that the boundaries and distinctions between the two systems were maintained. At the same time, conversations about the differences between them were brought back to things they had in common. For instance, ranching was identified as a point where the two food systems have conflict, primarily in cases where ranching (part of the alternative food system) limited the ability of Indigenous peoples to harvest important root or berry crops. However, it was also mentioned that traditional food systems were, in a sense, managed like a ranch on a broader ecological scale. Similarly, the terms food security and food sovereignty were at once used to define each system, and at the same time affirmed as movements that relate to each – only in different ways.

Even when there were overlaps between the two systems, a thread of difference ran through all of the discussions. Two food systems based around proximity are bound to share some qualities and even some of the same resources, yet can remain distinctly different. What, then, is the difference that makes the difference? How are the two food systems distinguished from each

other in the shared space of this third type of interface? The answer seems rather obvious – it is culture that differentiates the two systems. This insight was assumed from the beginning of this discussion. At the outset, food systems were described as a reflection of a region's geographical and cultural diversity, embodying a unique balance of social, environmental and economic values upheld by a particular group of people. Food systems were introduced as being largely distinguished by the particular culture that gives them meaning. This was echoed in the interviews again and again, particularly with respect to traditional food systems.

Curiously, culture was not mentioned as a critical factor that defines alternative food systems. Arguably, it is culture that also makes the difference between the alternative food system and the global food system. The values, beliefs and customs upheld by those involved in the alternative food movement are very different from those maintained in the global food system. It could be said that the alternative food movement stands in opposition to the culture of distancing played out in the global food system. What is the culture behind alternative food systems if it is neither the predominant western worldview nor stemming from an Aboriginal worldview? In a system where so many terms and concepts are still being debated and defined, it is difficult to articulate a clear culture to give it meaning.

Is this space where the two food systems are at times merged good or bad, beneficial or problematic? Such separations are critical in preserving and respecting cultural identity. For many indigenous groups around the world,

restoring their traditional food systems goes hand in hand with the preservation of and re-engagement with their cultures. Can a blend be helpful as well? Sandra mentioned that greater numbers puts more power behind policy. Barry stated getting more people out into the bush harvesting non-timber forest products will help to get forest companies to adopt more sustainable practices and to recognize the multiple uses and values of forested areas. But do these efforts necessarily mean breaking down cultural barriers? Food security or sovereignty is achieved for different groups of people according to what is appropriate in their culture. For indigenous peoples, good food boxes, community gardens and farmers markets may have little to do with food sovereignty, whereas for non-Aboriginal people they may play a large role.

There is a need to articulate the differences, and yet there is also a need for cross-cultural discussions so that these different qualities and distinctions can be understood; thus, bringing to light the parallels between the two food systems helps to initiate cross-cultural discussions about food in general. Part of the function of these discussions, in my judgment, is to understand and respect the differences and unique needs of each culture in relation to food, to identify and resolve areas of conflict, and to ensure opportunities to collaborate through knowledge-sharing and support.

5.3 Implications

What are some of the implications of the different types of interface between traditional and alternative food systems described above? What is the

significance of considering the interface in the first place? The interviews confirmed that even if there seems to be little relationship between the two food systems in a particular region, at the very least it is an important topic to consider.

The results suggest that there currently may be sources of conflict between traditional and alternative food systems, especially when it comes to land-use. Many of the respondents noted that conflict could be avoided or resolved if all users are considered. For instance, even when carried out on a small scale, 'organic' ranches take up a considerable amount of space. Not only do the ranches fragment the landscape and disrupt migration routes of wildlife, but the cattle eat or walk on important traditional plant foods such as berries and root crops. Furthermore, Indigenous hunters are involved in a form of ranching as well, only on a larger ecological scale and managing different animals. Therefore both groups could benefit from communicating with each other to find ways to allow room for both food systems, and to share knowledge about management. There need not be this type of conflict so long as alternative food systems are not infringing upon or limiting traditional land-use. If alternative food systems involve activities that take into account and have respect for the traditional food systems of the First Nations inhabiting that area, there should be no conflict, and in fact could be valuable opportunities for information and resource sharing, as well as mutual support to change policies in support of both local food systems. This is but one example of why dialogue between the two

systems is an important aspect of conflict resolution so that both systems can thrive and they can co-exist harmoniously.

For Aboriginal peoples, returning to a traditional diet has been emphasized as an important part of addressing prominent health issues such as diabetes and obesity. Yet, as one participant mentioned, there are insufficient resources to support all indigenous peoples in British Columbia returning to a purely traditional diet, if this was desired. Darryl pointed out that even for the communities that are the most engaged in their traditional lifestyle, people eat a mixture of traditional and market foods; therefore, it is impractical for there to be no interface or relationship between the two food systems. As the ability for First Nations peoples to access their traditional foods continues to be threatened by industry and government policy, there is a need for accessible and affordable healthy choices to complement traditional foods. Another testament to the necessity of an interface, as stated in the final report of B.C.'s First Annual Indigenous Food Sovereignty Conference, is: "although the primary responsibilities of achieving Indigenous food sovereignty is riding on the direct actions taken by grassroots Indigenous people, additional financial, technical and political support from non-Indigenous allies is critical" (Morrison 2006: 9).

Many studies indicate that market foods that are high in carbohydrates and sugar are a major contributing factor to the rise in diet-related diseases in Aboriginal populations; yet, it is not 'alternative' market foods that are being purchased, it is foods supplied through the global food system. For both reasons, it seems reasonable to assume that healthy 'alternatives' would be appropriate to

supplement traditional foods as well as to replace less healthy conventional foods supplied through the global food system. As an example, Collier and Koop (2006) suggest building relationships between hunters and ranchers, so that when reserves of wild game are low, there is a similar food choice available that is comparable in terms of food safety and quality. Thus strengthening the links between traditional and alternative food systems has a place in addressing such health concerns.

Traditional food systems and associated management of natural resources has long been recognized as providing 'models for sustainable living' (Turner et al. 2000: 1275). Sustainability is also one of the goals of the alternative food system, although the means of achieving this, along with the word itself, are still contested in the literature. Increased communication and information sharing between the two food systems could help to clarify and inform the sustainability of alternative food systems. There is much to be learned from a system whose success and integrity can be attributed to thousands of years of sustaining the well-being of indigenous peoples as well as the health of the environment.

Lastly, many towns in British Columbia are getting involved in the development of local food policies as a means of increasing and supporting local food production and ensuring community food security. In British Columbia, as in much of the world, the people who are the most food insecure, income poor and most susceptible to poor health are groups that have been marginalized by society, such as indigenous peoples. It is plausible, then, that alternative food

initiatives geared towards increasing food security would target and cater to these social groups. Many studies identify the shift away from eating traditional foods as one of the principle causes of diet-related diseases among indigenous peoples. To improve food security and overall health, First Nations peoples are renewing and recovering their traditional food systems. Thus, alternative food initiatives that address food security issues would be more effective if they took into account the unique concerns and needs of the First Nations peoples and designed culturally-sensitive programs and policies that helped to support traditional food systems. Similarly, when changing, suggesting, or enacting food policies, it is important that local food policy councils take into account the different kinds of food systems that exist in their regions and their unique processes, customs and needs. In terms of policy making, the fact that the two food systems are so distinct in their histories, their cultural backgrounds, and structure, makes communication between the two and mutual support important.

In order for there to be respect and space for different food systems and their cultures to thrive and co-exist, there needs to be more cross-cultural dialogue about food to honour and celebrate the differences, as well as aspects of food shared by all humans. We can find ways to work together that acknowledge and celebrate the cultural differences that underlie each food system.

5.4 Directing future research

From this preliminary study on the relationship between traditional and alternative food systems, there are many areas of interest that could be expanded upon in future studies. As the purpose of this particular project was to scope out the boundaries of this topic in a general way, it paves the way for future researchers to identify this relationship in greater detail. For instance, it would be interesting to look at the attitudes that harvesters, ranchers, hunters and farmers have towards each other to inform the discussion on land-use conflict at the interface. Alternatively, one could do a comparative study between attitudes at the ground level as suggested above, and people working at the policy level.

Given the dwindling and contaminated traditional resources and the increasingly integrated lifestyles of Aboriginal peoples in Canada, how have traditional food systems adapted over time? Where does agriculture fit in to traditional food systems, if at all? Furthermore, where does the commercialization of First Nations traditional foods fit into this discussion? On one hand, it could be a way to regain control of traditional food systems and become more 'food sovereign', yet it also begs questions about the exploitation of non-timber forest products (Turner 2001). Gary Nabhan considers this issue:

> *The Native American agricultural legacy is more than a few hardy, tasty cultigens waiting to be 'cleaned up' genetically for consumers, and then commercialized as novelty foods. Our goal must be something beyond blue corn chips, tepary bean party dips, amaranth candy, sunflower seed snacks and ornamental chiles. These nutritious crops deserve to be revived as mainstays of human diets, and not treated as passing curiosities. These cultivated foods are rich in taste and nutrition, yes, but they are also well adapted to the peculiarities of our land (1989: 193).*

Reflecting on the appropriation of certain traditional foods such as wild rice and blue corn, Nabhan warns the marketing of indigenous foods may ultimately drive them "beyond a price thought reasonable by many Indian consumers" (1993: 79).

In this study, different degrees of interaction between the two food systems were highlighted. To expand on this idea, a study that compares instances where the relationship is weak with examples where it is strong to further understand the implications and reasons for each could be designed.

Lastly, the dynamics of a food system are different in urban areas as compared to rural areas, yet people, no matter where they live, need access to quality foods. In urban areas, it can be difficult to strengthen local food systems when land where food can be produced is scarce. Furthermore, urban areas pose a particular difficulty in the availability of traditional foods, where an even larger land-base is necessary. Thus, comparing the relationship between these two food systems in both an urban and rural setting would be helpful to make policy recommendations appropriate for both settings.

Chapter 6

Conclusion

Traditional and alternative food systems are two unique and independent systems, each with their own historical and cultural backgrounds. At the same time, they both form part of the local food system of a region, and thus have a relationship with each other. The purpose of this study was to explore how the two food systems relate by looking at their interface. Interviews with key informants across British Columbia involved with both food systems revealed interplay between their similarities and differences. One of the main findings of this study is that there are reasons to be asking questions about the nature and relevance of the interface as the relationship between the two food systems is not straightforward.

This study also provides a conceptual framework to think about this relationship and sets the groundwork to further research on this topic. This study revealed examples of interface between the two food systems that can be thought of in terms of collaborations, interactions or overlap. When the two food systems collaborate or interact, the boundaries between them remain clear and distinct; however, when the interface is expressed as an overlap, their identities are perceived as fuzzy.

Considering the parallels between traditional and alternative food systems encourages dialogue across the systems and across the cultures that underline them, where food is discussed in general as a basic need shared by all people.

This assertion was echoed in the interviews, with statements like "we're all in this together". Health and environmental concerns arising from the way food is produced and distributed in the global food system - contributing to diet-related diseases, food insecurity and climate change – can unite traditional and alternative food systems in finding solutions to common problems. However, many food issues are unique to traditional food systems that have been and continue to be threatened first by colonization, secondly by industrialization, and thirdly the global food system. Thus, one of the main purposes of this dialogue, especially when it comes to food policy, is to remind us of the differences that distinguish these two local food systems. The efforts of First Nations peoples to regain their food sovereignty and the unique ecological and cultural needs of their traditional food systems differ from alternative movements attempting to detach from the global food system.

Understanding how traditional and alternative food systems relate to each other can uncover opportunities for collaboration and mutual support, can foster more meaningful interactions and resolve conflicts, and can ultimately help both thrive and coexist harmoniously. While strengthening local food systems in general is an important part of reversing many of the prominent health and environmental concerns faced by people around the world, it needs to be done in a way that acknowledges and honours the particular cultures around which each food system has been built.

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Appendix A: Research Statement

Graduate Research Summary
"Exploring the 'interface' between traditional and alternative food systems"

I am conducting a study as a part of my Masters thesis in the Natural Resource and Environmental Studies program at the University of Northern British Columbia. The purpose of my project is to gain a better understanding of local food resources in this area. More specifically I am interested in how First Nations traditional food systems and alternative agricultural food systems interact in this region, to understand how these local food networks can be strengthened to benefit everyone.

It is more common these days that the most affordable and accessible foods, supplied through conventional food networks, tend to be low in nutritional value and have traveled hundreds to thousands of kilometers before reaching Prince George. Not only is this taxing on the environment, it also has negative consequences on human health. In contrast, local food resources are more nutritious and are usually harvested and distributed in a more environmentally sustainable manner. In Prince George, there is a growing awareness around the value and benefits of local food resources in promoting and supporting both human and ecosystem health.

This region's local food system consists of networks of people and activities related to the acquisition of both traditional food resources and 'alternative' or small-scale agricultural production. These networks represent two distinct food systems with different histories; however, the two systems seem to interact and sometimes involve similar activities. I use the idea of an 'interface', signifying a meeting point or intersection, to describe the interaction between these two food systems. Understanding the relationship between traditional and alternative food systems will help create a clearer picture of what opportunities exist to build on local food resources in Prince George.

Your name has surfaced due to your association with local traditional or agriculturally-based foods. Your participation would involve one interview of approximately one hour, with the possibility of a follow-up meeting or phone call to review and verify my interpretation of the data if necessary. There are no risks involved in this study. My research is an attempt gain a better understanding of how food moves in and out of Prince George, how it relates to local health and environmental issues, and how these issues can be and are being addressed at the local level. Your participation in this study has the potential to benefit and inform efforts to increase the accessibility of local traditional and alternative foods. I would be pleased to present a summary of my findings to anyone who is interested.

If you have any questions or concerns, you can reach me by email at gareau@unbc.ca or by telephone at 250-562-0604. Any complaints about the project should be directed to the Office of Research, 960-5820 or by email at reb@unbc.ca.

Sincerely,

Laura Gareau
MNRES Candidate
University of Northern British Columbia

Appendix B: Consent Form

Project Title: *Exploring the 'interface' between traditional and alternative food systems*
Researcher: *Laura Gareau*

Dear Participant:

      I am conducting a study as a part of my Masters thesis in the Natural Resource and Environmental Studies program at the University of Northern British Columbia. The purpose of my research is to understand the relationship between different ways of providing and distributing local food resources in the Prince George area. More specifically I am interested in how First Nations traditional food systems and alternative agricultural food systems interact in this region, to understand how these local food networks can be strengthened to benefit everyone. More and more, people are recognizing the benefits and potential of local food resources as the dominant way that food is produced and distributed is linked to many current health and environmental concerns in this region, and around the world.
      Your name has surfaced due to your association with local or traditional foods. Your participation would involve one interview of approximately one hour, with the possibility of a follow-up meeting or phone call to review and verify my interpretation of the data if necessary. There are no risks involved in this study. Participation in this study is completely **voluntary**, meaning you have the right to withdraw from the study and withdraw your information at any time if you so choose. Your interview responses will be kept **confidential**. The information you provide will be stored electronically and will be accessible only to the researcher, with any personally identifying information omitted. All hard copies of the interview, including tape recordings and notes, containing your personal information will be stored in a locked container and will be destroyed after 2 years. Your personal information will not be shared or included in any publication resulting from this study. In the instance that I would like to use your name or one of your responses as a quote, I will seek your permission in writing.
      My research is an attempt gain a better understanding of how food moves in and out of Prince George, how food relates to local health and environmental issues and how these issues can be and are being addressed at the local level. Your participation in this study has the potential to benefit and inform efforts to increase the accessibility and availability to local traditional and alternative foods.
      For a copy of the final report or if you have any questions or concerns, you can reach me by email at gareau@unbc.ca or by telephone at 250-562-0604. Any complaints about the project should be directed to the Office of Research, 960-5820 or by email at reb@unbc.ca.

_____   _____
        Investigator   Date

I have read and understood the above and I voluntarily agree to participate in this study. I understand that I can ask questions and withdraw my participation at any time.

_____   _____
        Participant   Date

Appendix C: Sample of Interview Questions

1. Can you describe the nature of your involvement with local and/or traditional foods?

2. Can you describe your involvement with (program, organization)?

3. What foods do you associate with this region?

4. What do you consider to be alternative/agriculturally-based/cultivated local foods?

5. What do you consider to be traditional foods?

6. In what ways are local traditional and non-traditional foods being promoted in this region?

7. Do you think there are any similarities between traditional food systems and alternative agricultural food systems?

8. In what ways are they different?

9. Do you see any conflict between local traditional and alternative/agriculturally-based local foods?

10. What are your greatest food-related concerns?

11. How would you like to see people getting their food?

12. If a food policy council were established in your region, what issues would you want to see addressed?

13. Do you think there is a relationship/interaction/interface between traditional and alternative food systems?

14. Can you recommend anyone else that might be interested in talking to me about this subject?