University of Alberta

Ways of Knowing: Western Canadian Agriculturalists and Local Knowledge

by

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Abstract

This thesis explores the concept of local knowledge as it applies to western Canadian agriculturalists, more specifically, to northern Albertan farmers. By focusing on the links between environment, society, economy and history, it is shown that such farmers have a unique, accurate and holistic understanding of their surroundings. This understanding is a fundamental component of local culture and decision-making and includes the negotiation of, and adaptation to, outside influences. Through a general western belief that knowledge is institution-based, both agricultural scientists and farmers themselves have undervalued the importance and validity of such knowledge. Subsequently it is important to understand how knowledge itself is perceived both internally and externally in local knowledge studies. The form knowledge takes, its practice and articulation, are as unique as the knowledge itself and one can not be interpreted without the other.

Preface

This thesis can be viewed as a complement to existing literature that strives to document varying forms of local knowledge as well as both its local and more general importance to society, knowledge management and the knowledge economy. Knowledge by its very nature is difficult to define, much of its value lies in elusive qualities that fade when looked at in too close of a manner. Much literature has been dedicated to outlining the dangers in separating local knowledge from the environment and people in which it is cultivated. Such literature also often simultaneously demonstrates the importance of including such knowledge in local management or development issues and in recognising local ways of knowing as valid in and of themselves.

The research displayed within the following pages is an attempt to discover the nature of local knowledge within the Fort Vermilion area, Alberta. It is an incomplete documentation of the knowledge held by community members, its source, form and importance. This is done with the goal of increasing general recognition that many agriculturalists are in a unique position to develop and maintain significant and detailed knowledge of their land and community.

Through interpreting local opinions and understandings I have come to define local knowledge within a framework applicable to those within this study. For the purpose of this research local knowledge can be found in the links people draw between social, environmental and economic/political

factors. It is in these links that local decision making is found, where power relations are revealed and where the unique understandings of how things relate to each other and why they exist in such a form are explained. Local knowledge is experiential in nature, includes the incorporation of and adaptation to, external influence and also draws upon the experiences of trusted others. It is in local knowledge that one may find how everyday contradictions are negotiated, and how land can be at once private, social, historical, economic and natural.

Such knowledge is embedded in a community of practice and begins to lose its local value and meaning when taken away from the people and circumstances in which it is continuously in creation. It is for these reasons that the knowledge documented within the following pages is often in the voices of those speaking, is supported by community description, and why it is meant as a compliment to existing literature on the subject – to add to the work in progress that is knowledge studies.

Acknowledgements

I would first like to give thanks to the hamlets of Fort Vermilion, Rocky Lane, LaCrete, the town of High Level and all the farmers and non-farmers who allowed me into a part of their lives. I hope I have done their craft and the knowledge they hold true credit. With them I include my parents, two great ranchers who taught me to respect the firsthand experience gained by working with the land. I would also like to acknowledge my supervisor Mark Nuttall for allowing me the independence to conduct this study as I saw fit, and lastly Gabriel Asselin, my husband, research assistant and editor.

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Table of Contents

Table of Figures and Illustrations

Chapter 1

Introduction

Agriculturalists, like many rural residents, have an intricate relationship with their landscape and that relationship is an influencing factor in local culture and decision-making. Yet the information they hold about their surroundings is often understudied and overlooked by agricultural scientists, academics and developers. Due to the increasing industrialisation of farming practices, a decrease in the number of family-run farms and increasing farm size there has been a general acceptance and even at times embrace of a stereotype which portrays western farmers exclusively as voluntary destroyers of the environment and as part of a dying community and rural life-style. Academically, farming has been artificially divided between disciplines covering economics, social divisions, agricultural practice, women's rights, history etc, but few looking at farming as a whole.

The ultimate goal of this research is to address this gap through enquiring into the existence and form of local knowledge within a farming community and to understand it not only as it applies to those who desire it, but also as an essential component of local identity and culture. This will be achieved through a focus on the relationships, links and perceptions of land, rural/urban relations, environment and development.

This project began with the narrower intention of documenting the environmental knowledge of northern Albertan farmers and demonstrating its applicability to local environmental management and development projects. However, it is often necessary while within the field, to shift focus from what was looked for towards what is. Research

began with the idea that groups such as ranchers and farmers hold a detailed and well-rounded understanding of their environment despite its non-scientific appearance and that following a tradition of state-centric resource management local knowledge is seldom considered and farmers and ranchers seldom consulted. The original form of knowledge sought was to be specific and applicable in equally specific development cases. However, it proved necessary to build on this intent, twist its shape slightly, and turn towards the notion that agriculturalists, like many rural residents, have an intricate *relationship* with their environment. The existence of local knowledge, including but not exclusively environmental, and its integrated and complex role within a rural community was such that focusing on one narrow aspect oversimplified its form. Thus, this study aims to not only document environmental knowledge of rural farmers, but to discover the form of such knowledge, to attempt to define it not exclusively by its content, but also by its cognitive and social shape. The form of local knowledge is determined through looking at local accounts of environmental and social phenomena, but also through influencing factors such as urbanisation and how knowledge is perceived both locally and by outsiders. The everyday acts of people's lives, their perception of, and their place within their community and environment, both represent and create knowledge.

This thesis takes the form of a discussion of some of the variety of influences touching local knowledge and its perception. It is a discussion of the context of local knowledge and of the role context plays in the creation of knowledge. A propensity for change and development, landscape, urbanization and environment, all influence not only the content of local knowledge but its form. That is, the form and content of local

knowledge within the research community is much determined by how the following topics are understood, negotiated and acted upon.

The first topic discussed is that of land(scape). Land is looked at as a dynamic medium fully connected to society, as both socially constructed and physically real. In this framework land becomes transformed into place by the application of meaning by locals, but cannot be separated from the very real and biological influence it has on farming practices. The cognitive and physical meaning land holds is local by nature and outsiders are less likely to view it within the same framework of understanding. How land is viewed, and how it is connected to society, identity and economy is best understood by looking at the actions which take place upon land and the stories which emanate from it. Land(scape) is locally understood as part of a system of broader connections and therefore knowledge about land must be understood within that same system. Indeed, the link between land and for instance, economics or family values, is itself knowledge and can help explain local decision making and actions to outsiders.

The second topic discussed is that of increasing urban influence and a parallel identity as rural. Urban influence in the form of politics, economics, agri-business, knowledge perceptions and in setting research and development priorities is very present in the research community. Urban centers are often perceived of as housing the experts who hold the knowledge of mainstream society. Urban influences also effect the physical environment both in acts and perceptions; urban demand for raw materials run rural economy, and urban led research and policy determine how land will be used and perceived. Yet rural people negotiate this ever present contradiction of being rural while under urban influence through utilizing and adapting different local labels and ways of

understanding. The ways in which rural residents adapt to urban influence is itself a form of knowledge, but perhaps more importantly, such techniques influence the perception of knowledge itself.

The third topic discussed is that of environment, encompassing weather, soil, flora and fauna. When looked at primarily through conversation with locals it is shown that the environment is understood as inseparable from history, economics and social existence. Accounts of the physical environment are typical of local knowledge studies and farmers will be shown to be very knowledgeable of their environment as it is now and as it was within the last century. However, rather than focusing exclusively on substantive environmental fact, this section will instead focus on the relationships between different influences which make themselves apparent in oral accounts. The environment, being locally inseparable from society and economy is a form of land ethic which must be recognised in order for local environmental knowledge to be understood within its cultural context.

The fourth and last topic discussed is that of development and change. Resource development is also typical of local knowledge studies, but rather than focus on one specific project this study looks at a variety of local development influences including oil and gas, forestry, expanding agriculture and regional environmental preservation initiatives. Locals are very knowledgeable concerning development activity within their area and they understand development to be integrated within a larger understanding of community and environment. When discussing community input with both community members and development representatives, contradictions become apparent between ideal community involvement and reality. In an unequal power relationship, rural

residents are given rights of opinion through voting or consultation, but not necessarily recognition as experts of their surroundings. Local and outsider perceptions of urban influence, land(scape) and environment, influence how both development and knowledge are understood.

In a society where knowledge is linked to institutions or alternatively designated to non-western cultures, it is all too easy to overlook internal variation of how people understand and order their world. Yet it is only through understanding the unique world-view of agriculturalists in this particular northern community that the vast information they hold concerning their environment, history and people, can be understood. Through demonstrating the links between different areas of influence on farming activity, it will be shown that understanding the form knowledge can take is fundamental to understanding knowledge itself.

1.1 Theoretical Approach:

The recognition of local knowledge as an important and valid source of information has grown considerably within the last thirty years. The concept of traditional knowledge is now built into the political and legal existence of the Northwest Territories, Nunavut and the Yukon, and its political and legal recognition has aided peoples in gaining, to varying degrees, representation, voice, and authority. Due to this, the notion of local knowledge has become primarily tied to indigenous peoples, notions of empowerment, intellectual property, and often to the physical environment and its uses. In general, it is common to employ a functionalist or applied approach towards

knowledge, in which local knowledge is broken down or understood with regards to the perceived social function it fulfils at any given time.

Yet when taken outside of this modern traditional and ecological interpretation of knowledge, other angles of inquiry emerge. Geertz (1983) stated that: "cultural anthropology is mostly engaged in trying to determine what this people or that take to be the point of what they are doing." and that it has always been grounded on the "dependence of what is seen upon where it is seen from and what it is seen with". Thus, "To an ethnographer, sorting through the machinery of distant ideas, the shapes of knowledge are always ineluctably local, indivisible from their instruments and their encasements." (Geertz 1983:4). Here knowledge is not necessarily the subject of research, but the context through which reality is interpreted. When understood in such a way, local knowledge is a cornerstone in anthropology. Through recognising plural cultures and highlighting the importance of context and cultural relativism, many founding anthropologists were working with and recognizing both the existence and validity of local knowledge.

Between the above two approaches there is no conflict in understandings of what knowledge is, only divergence in conception of its form and the primary drive of its study. Knowledge is often studied as either *part of* culture or through its *function,* what it provides or explains. Much current literature on local knowledge, particularly that relating to aboriginal groups is grounded in resource development, management and land claims; it is of the applied sort and deals primarily with representation, communication between western science, locals and rights, and is particularly relevant in such times where development and local rights are a major issue (Berkes 1993,Cruikshank 2004,

Freeman 1985, 1998, Usher 2004). While the importance of a holistic approach, one rooted in culture and history, towards this form of knowledge is stressed by many of the above authors, the political motivation for much of this research necessitates an understanding of knowledge in functional or applied terms.

The former approach as laid-out by Geertz, understands knowledge to be indivisible from environment, culture, politics, history and economy. Geertz suggests we look at such knowledge as a thought system in which anthropologists would need to concentrate on how meaning from one system is expressed in another and how it is moved from one discourse to the next. It would include functional environmental knowledge but not be exclusively bound to it.

What people know can not easily be divided into neat categories (i.e. flora, fauna, agricultural practice, local history etc…) as such categories mesh to create unique form, one that is not visible otherwise. Using the idea that the form knowledge takes influences the knowledge itself, this study not only documents the environmental knowledge of agriculturalists but concentrates on the *nature* of what knowledge is, its cognitive form, cultural expression and the relationship between its multifaceted parts. Often, biographies of farming families indirectly approach knowledge in such a way (e.g. Bogue 2001). Others such as Stirling (2001) have looked at the idea of knowledge as linked to rural culture. The most thorough accounts of agricultural local knowledge have often not had that goal in mind, but have instead aimed to document farming life in general. Fitchen (1991) documented the presence and impact of change on New York state dairy farmers during the 1980's. In doing so, this account also outlined the ties such farmers had with their land, cattle and community as well as the historical, environmental and cultural

knowledge they held of it. Ferguson (2003) documents local historical and social knowledge through his semi-factual memoir of his life in Fort Vermilion as a child. Much of the book, such as the following extracts, detail life in Fort Vermilion and how people dealt with issues such as water shortage or lack of services.

> Since most homes had no electricity, and that meant no refrigeration, meat was smoked in the summer to preserve it, then left outdoors to freeze solid in the winter. Meat that was smoked was covered in wax paper to help draw out the moisture and keep flies away, and it ended up in a tree to protect it from scavengers. (Ferguson 2003:131)

> Before the roads to Fort Vermilion were improved, before tanker trucks could safely make the trip year-round, diesel fuel and gas were delivered to our area in fifty-gallon metal casks. Once these were emptied, they were up for grabs, and everybody had one sitting outside their house, for collecting the rain and for Frankie Flett, the Water Man, to fill up. You made sure they were clean by burning off the insides, then scrubbing them out with lye. They may not have been the most sanitary receptacles for drinking water but they worked fine (Ferguson 2003:92)

In these examples, the importance of context in local knowledge is not simply stated, but through actually documenting context, knowledge is accessed. Similarly, this study has moved away from the *function* of knowledge towards its *form*. Such knowledge is experiential in nature and both forms and is formed by environmental and social reality.

Fischer (2004) postulates that the misappropriation of the terms traditional and cultural knowledge leads to a generally poor account and treatment of human knowledge. Furthermore, he suggests the use of the indigenous/western dichotomy obscures knowledge and practices, disempowering peoples through artificially constrictive systems. While my research deals primarily with non-aboriginal populations, this focus is not meant to represent a dichotomization or comparison between knowledge forms. Knowledge and its form is specific to those who hold and create it and the places in

which it is formed. In this case it would not be a productive exercise to compare such context-specific concepts in order to find a degree of likeness, or worse to try to create a knowledge hierarchy. Nonetheless, due to the tendency of local knowledge research to focus exclusively on aboriginal populations, it is necessary to draw from literature and definitions based on traditional knowledge. While the context of knowledge is often so unique as to inform its existence almost entirely, the base theory that people from different areas and cultures have unique understandings of their world is applicable to more than one culture. Stilltoe and Bicker (2004) define indigenous knowledge as:

> ...any understanding rooted in local culture. It includes all knowledge held more or less collectively by a population that informs interpretation of things. It varies between societies. It comes from a range of sources, it is a dynamic mix of past tradition and present innovation with a view to the future. (Stilltoe and Bicker 2004:2)

While not meaning to draw comparison, this definition is also well suited to the study of non-indigenous local knowledge and is employed within this study.

Western culture has created text-based institutions of knowledge and subsequently a claim for local knowledge in modern western societies is difficult. The assumption of many is that local knowledge is present in solely historic or traditional societies. Thus there may be a tendency to revert to romantic or traditional images of agriculture when farmers are coupled with local knowledge. However, the farmers within this study are industrialised, large scale farmers, who use pesticides, fertilizers and occasionally computerized aids such as GPS in their farming practices. All are family-run but not all are multi-generational and while most are very hesitant to harm their surrounding environment, the inputs of their farming activity often do. Despite this,

farmers within this study interact with and understand their land in a way specific to their location and culture. Being members of a broader western culture and agri-business system does not necessitate loss of local environmental and social knowledge. It is also necessary to point out that what may be true for general agricultural tendencies is not necessarily true for farmers themselves, specific farms or specific communities.

The idea of local knowledge must necessarily evoke a notion of locality. In a book by Christopher Tilley (1994) regarding place and space, the monopoly of the scientific approach within environmental studies is questioned. Looking at space from a scientific view reduces it to something that is abstract from human affairs: a blank surface, which is decentered from agency and meaning. As an alternative, Tilley suggests space should be approached as a medium involved in action, which is socially produced and open to change. Tilley applies a constructivist approach to land whereby it is interpreted as exclusively social and criticizes those who use a realist approach in which land is separate from human understanding. Understanding different approaches to land is important as others perceive the meaning and function of farmland in a significantly different way than the people who live and work on it. Furthermore there is a connection between a sense of place and the creation and reproduction of knowledge. Subsequently local knowledge can become more problematic as others enter geographical areas and attempt to recreate the meaning of that space on their own terms. Tilley uses the approach of phenomenology which involves the "...understanding and description of things as they are experienced by a subject" (Tilley 2004:12). In using this approach, the researcher must attempt, as much as possible, to understand the research place as those who use it do. Any space would have an intrinsic value based on the understanding of it by those

who interact with it. However, by employing this approach to understand land in the context of farming in northern Alberta, local perception necessitates that land must simultaneously be understood as a very real and separate entity *as well as* socially understood and constructed. Ingold and Kurttila (2000) find that a similar approach is necessary in understanding the circumstances that make knowledge local.

> ...knowledge is local because it inheres in the activity, of inhabiting the land, that actually *creates* places. And in creating places, it also makes the inhabitants people of those places – it makes them local. People belong to the localities and environs in which they have grown up, just as much as the latter belong to them. To break the bond between persons and place along the lines of a division between cultural heritage and natural environment would be to cast tradition adrift from its generative source of meaning, leaving it as the vestige of an ancestral form of life long since overtaken by its representation as an object of memory. (Ingold and Kurttila 2000:194)

1.2 Community Profile:

Research took place primarily within the Municipal District of McKenzie, number 23 (MD 23), of north-western Alberta. More specifically, it focused in and around the hamlet of Fort Vermilion, the administrative center of the district. The McKenzie district takes up 12% of Alberta's total landmass and had a population of 9687 persons in 2003, a 21% increase from the 1996 federal census[1]. Fort Vermilion, with a total population of 871 people in 2003, was founded in 1788 and is the oldest European settlement in Alberta. While the economy of the Fort Vermilion area is largely based on agriculture, forestry, and administrative services, the wider district is also heavily involved in oil and gas development. Although residents of Fort Vermilion report that both oil and diamond exploration is occurring within their area, currently such activities are concentrated west

[1] Statistics Canada 2001 Census

and south of the hamlet. Situated along the banks of the Peace River, Fort Vermilion is a northern agricultural zone surrounded on all sides by a larger boreal ecosystem that is less hospitable to agricultural endeavours. It is approximately 170km south of the North West Territories, 661km north-west of Edmonton and is the northern most agricultural area in Canada, see figure 1.

Figure 1 : Field work location
source: www.atlas.nrcan.gc.ca
accessed June 2007

The hamlet of Fort Vermilion dates its creation to the Boyer trading post built in the area in 1788. At that time, the area was inhabited by Dene (Beaver and Slavey) and

by Woodland Cree. The trading post was occupied intermittently until 1830, since which the hamlet has been continuously inhabited. Horticulture was experimented with as early as 1792 as European inhabitants tried to grow various grain and legume crops to help sustain residents and by 1821 was supplying food to other posts which had less favourable climate and soil. Believing a large amount of grain could be grown in the area, the Hudson's Bay Company (HBC) sent a patent flour mill to the fort clerk at the time. In 1866 a Roman Catholic mission was established to be followed a decade later by the establishment of an Anglican mission. Both missions established farms: the Roman Catholic in 1876 and the Anglican in 1879. In 1886 the Experimental Farm Station Act was approved by Parliament, an act which eventually led to the 1907 establishment of an experimental farm in Fort Vermilion. Its main purpose was, through plant variety testing, to determine the best crops and soil management techniques for the region. In 1935 the Farm was moved to its present location west of the town due to flooding of the Peace River.[2] The area began to slowly expand its population from the early 1900's on, and ethnic and religious communities began to appear. The nearby town of LaCrete was established by Mennonite settlers in the 1930's, the small community of Rocky Lane was settled predominantly by Ukrainian immigrants and due to the presence of residential schools in Fort Vermilion until 1968, the community was seen as one tied more to the local aboriginal population. Starting in the 1960's Fort Vermilion and surrounding area received an influx of farmers from Manitoba, Saskatchewan and southern Alberta who were lured with available homestead land.

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[2] *Fort Vermilion: Where Alberta Began, 1988*, and various sources as provided and reproduced by the Fort Vermilion Heritage Society

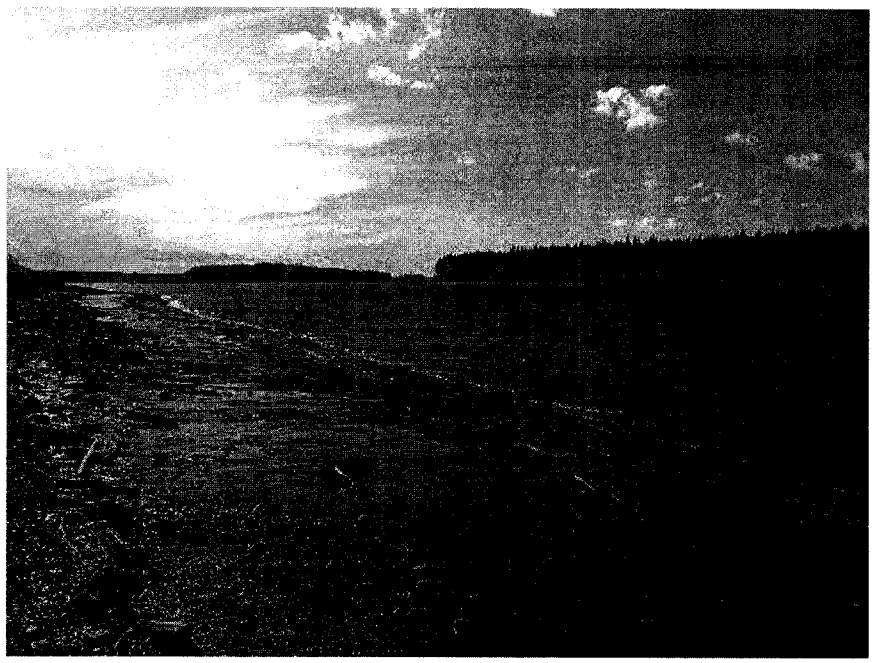

Figure 2:
The Peace River as seen from downtown Fort Vermilion

Through such programs crown land was dispersed of through a draw system in which people wanting to establish farms would place an entry. If their names were drawn a parcel of land was allotted to them with the restriction that a certain amount of land be broken or planted within the following five years, after which the option to buy was given.

Until the first and only bridge crossing the Peace River in the area was built in 1974, local inhabitants relied heavily on the two ferry crossings and winter ice bridges to traverse the river. This meant that twice each year, during break up and freezing, the community was isolated from others.

Due to funding cuts, in 1994 the Experimental Farm administrative office closed down, later the Alberta Government and Agricultural Services office also left the site, including the district agriculturalists who advised local farmers. Currently activity on the site is limited to the three staff of the Mackenzie Applied Research Association and a few

remaining government employees of the original farm infrastructure. Fort Vermilion remained the main center for information and supplies until the town of High Level, along side the main northern highway, began to grow during the 1980's. The community of LaCrete also began to expand and although Fort Vermilion remains the administrative center for the area, LaCrete and High Level are able to offer a larger variety of consumer services. Fort Vermilion now holds the school division office, a municipal district administration office, a Fish and Wildlife and Alberta Sustainable Resources office as well as a hospital and main police station for the area. For purposes of clarity and readability, when referring to the Fort Vermilion area within this paper, that area will include the hamlet of LaCrete and Rocky Land as well as all farm land east of the town of High Level. While residents may object to this reference, as Fort Vermilion is the administrative centre for the district and is also the main centre of my research the use of this term is necessary and will distinguish the research area from the larger municipal district (MD) as a whole.

Both farming and various forms of religion are still major influences on the area's identity; Mennonite, Catholic and varies Christian churches are present. The abundant presence of fields and churches alongside the immense Peace River create a striking landscape. Immigration into the area has lessened the ethnic homogeneity of the hamlets; while LaCrete is still primarily a Mennonite community, Rocky Land and Fort Vermilion consist of a mix of religions and cultures, although the old labels of Ukrainian and Native are still used by locals.

The Northern Alberta Development Council has issued a number of economic studies which outline the contribution of the region to the province and Canada.

According to one such report (2003)' in 2002 agriculture in Northern Alberta accounted for $250 million in crops accounting for 19% of Alberta's agricultural total, while $41 million in livestock accounted for 5% of the province's total. In the same region 2.1 billion dollars worth of forestry products were exported, totalling 75% of the provinces total. As well, 37% of Alberta's natural gas and 52% of the province's oil was exported from the region. Currently the Municipal District of Mackenzie, like much of the province, is experiencing an economic boom and subsequently the communities within the region are going through a period of change in which traditions, social structure, religion and the choices available to youth are in flux.

1.3 Methodology:

While my fieldwork was concentrated predominantly in and around the community of Fort Vermilion, I also conducted research in the communities of LaCrete and Rocky Lane, both of which are within a 30 minute drive of Fort Vermilion, as well High Level, the closest large town. The communities proved to be too interconnected for research to concentrate on only one: many families are spread throughout all four communities, certain services are only available in one or two communities, particular meetings or events may only occur in one community and farming practices and contact with the Experimental Farm create links between communities. Furthermore, farms were usually situated outside of town limits and were not easily divided into community membership.

Three interviewing techniques following Bernard (2002), were employed during research. Informal interviews, for which notes were jotted down later that day, were used

primarily for general information gathering, while unstructured and semistructured interviews were used for more specific topics. Preliminary research was conducted in the community in the month of February, 2006. During that visit contact was established with four farming families in the area as well as a local historian, who is also a farmer. Unstructured interviews, in which collaborators are able to control the direction of the conversation, were used as a primary tool during preliminary fieldwork. During a five day visit to the area, six separate interviews took place with eight residents: all interviews were conducted with the intention of learning peoples' origins to the community, what they felt were general community issues of relevance, and information they felt pertinent to their farming practices. This technique was highly effective in grasping what topics were of importance to locals. Furthermore, it helped establish the degree of indexicality necessary for further fieldwork to take place. Agar (1996) defines the degree of indexicality as the amount of shared background knowledge necessary to understand a message. In this case, my preliminary fieldwork allowed me to better see areas where my own background information was insufficient to allow for easy communication in certain instances. Examples for my research include the required understanding of local land divisions and their terminology and understanding the grain harvesting process. Using referrals from those families others were contacted with interview requests when fieldwork continued in September of 2006. Also contacted were members of the local agricultural society, development officers in both LaCrete and Fort Vermilion, and representatives from the Experimental Farm, local forestry companies, Alberta Sustainable Resource Development and Mackenzie Applied Research Association. Soliciting contacts from a variety of sources aided in ensuring contact would be made

with different circles of acquaintance and association. In total 33 interviews were conducted, 18 of which were with practicing farmers and 8 more of which had either farmers in their family or were otherwise connected to farming practices. Interviews were semi-structured, usually conducted in the home of the interviewee and lasted between one and two hours. During the interview the informant was asked to talk about their origin and profession and, if a farmer, was asked to give details concerning the size and type of their farm. Informants were also asked to speak about local oil, gas and forestry development, changes in weather, animal sightings, drainage patterns and community events. As more interviews were conducted, other questions were added based on an increased understanding of the area, such as the level of familiarity informants held about certain community groups, advisory boards and past consultation processes. As certain community members became more familiar, informal interviews during unscheduled meetings also took place. Fieldwork was conducted over a period of seventeen days in September, during which harvest was still occurring, and another ten days in November, after harvest was complete and people were planning for the winter. A total of 32 days were spent in the field. Shorter visits throughout the year allowed for various stages of farming to be observed. Furthermore, limiting my time to harvest season would have drastically cut down the number of farmers available to speak with me. By visiting the community during different times of the year the largest variety of people and community activities were available, it was then also possible to see the physical environment during different seasons and how locals adapted to seasonal change.

An effort was made to integrate as much in the community as possible within the short amount of time available. I and occasionally my husband and son were invited to

breakfast, lunch and dinner by community members, my family and I attended the local non-denominational church on Sundays, as well as local events such as the annual get-to-know-you night and the LaCrete market. My son and I also occasionally attended the local mom and tots group. Conducting fieldwork with my son and husband aided in gaining community acceptance, in creating a level of familiarity within the community and in starting up conversation with community members. On the few occasions where it was possible, truck rides were taken with locals, an event that proved very informative when it occurred. Lastly, local meetings were attended such as the National Energy Board meeting in High Level concerning the Mackenzie Valley pipeline, an annual Fish and Wildlife meeting, and a meeting of the local development council. It is my belief that my own background in ranching made gaining acceptance with locals easier, both due to an increased knowledge of farming practice and in not being labelled as an urban-academic researcher, someone about whom locals often express mistrust.

As historical data and current government policy towards the region is of particular importance, textual research was also a primary tool during this study. The historical society of Fort Vermilion has proven to be a great help in pointing out useful resources and in highlighting particular topics of importance to the area. Resources such as numerous locally-produced brochures depicting the history and environment of the area, copies of local stories, poetry on tape, a published biography of founding residents, and local newspapers were particularly helpful. Through using such resources within Fort Vermilion and the McKenzie District in general, a formal and written yet also local interpretation of history was accessed.

To compliment this, resources such as academic research on the region and farming in general were drawn on. Residing within the capital city of the province has also allowed me access to government libraries and databases which hold information pertinent to my study area. Fieldwork was also conducted outside of the community; through participation within the Woodlot Association annual meeting (a conference touching on many issues of concern to agriculturalists) and through monitoring information and events available through the province of Alberta's Rop'in the Web internet publication, a publication aimed specifically at Alberta agriculturalist and known to be accessed within Fort Vermilion. Other research tools included the use of local survey maps, which outline the general geography of the area, land parceling and the owners of each parcel.

All participants within this study were assured that they would remain anonymous. Subsequently all names within this thesis are pseudonyms and certain dates, references to specific places of employment or geography of living area have been altered to ensure anonymity. Many locals expressed a concern that research, once conducted, is seldom made available to the community. Upon completion, one copy of my thesis will be made available to the Fort Vermilion Historical Society and another copy made available to the LaCrete Chamber of Commerce.

Chapter 2

Perceptions of Land

To an ethnographer, sorting through the machinery of distant ideas, the shapes of knowledge are always ineluctably local, indivisible from their instruments and their encasements. (Geertz, 1983:4)

Land is a fundamental component of farming life. It provides the physical setting and the resource in which the act of farming takes place; and is an important setting where ideas of landscape and place are acted out and realized. Therefore understanding how land is locally perceived and how its role is expressed is necessary in understanding local knowledge of it. This is particularly important as local knowledge in this case, is more often acted out or quietly drawn upon than spoken out loud. The fields on which farmers act out their duty and identity create a landscape of meaning, a space of mediation, and a setting where knowledge is performed. Recording knowledge of the land without first discussing the real and palpable acts which take place upon it as well as the implicit meaning of it to local identity and understandings would be to divorce it from its context and subsequently from much of its meaning. The fields, plants and animals which create the foundation of agriculture do not have to be considered in either exclusively economic and biological terms, as seen through a realist paradigm, or as exclusively social as understood through constructivism. By viewing such spaces through local understandings and knowledge systems, land can be understood as a marriage of the two. Farming plays a particularly important role in identity creation and the physical

landscape farming takes place upon sets the parameters for such identity as it both creates and is created by the land. Farming is likewise an important activity that drives local economies and provides the necessities of life for farmers. In reviewing existing literature, employing place theory and drawing from field observations, in this chapter I will demonstrate the role land plays within the research community as well as the importance of understanding the meaning of land in fully comprehending the local knowledge of agriculturalists.

2.1 Theoretical Perspectives on Land:

Beginning with the theory of critical realism, I will address the notion of nature as something separate from human understandings of it. Carolan (2005) identifies three existing forms of nature: (1) "nature" as discursive construct, representing power and knowledge and is mainly expressed when an action or object is viewed and spoken of as 'natural' or 'unnatural'; (2) nature as sociomaterial, here there are no pure facts and nature is understood through human-environment relations; (3) Nature as physicality, the entity underlying human understanding of it, examples such as gravity and ecosystem processes. Critical realism postulates that there is a difference between the way things are and our understanding of them. Strong realists would suggest that we can never know the true form of 'Nature' as it is skewed by our understandings of 'nature'. However a more diluted realist paradigm encourages the understanding of the environment as something existing separate from human conceptions of it. A similar understanding of nature or environment can be seen through the application of Cartesian reductionism, in which problems or objects are broken down into individual parts and understood or 'solved'

through these individual components. Farming systems theory employs Cartesian reductionist techniques as it understands a farm system as composed of various parts, such as humans, soil and vegetation. The system is then broken down into sub-systems, for example the vegetation system or soil system (Turner and Brush, 1987).

Such theories advocate an understanding of land and the practice of agriculture as separate from social meaning and understanding. Common agricultural theory is often economic and reductionist in nature and leads to similar categories being created. Agricultural productivity is measured in terms of monetary value as well as through the cost and form of inputs and outputs. For instance, the Adam Smith Perspective emphasises the free enterprise system, allowing demand and supply to determine prices. The Staples Perspective views Canada and its economy as driven by foreign demand which has created a dependence on raw material and the goods of agriculture. The Metropolis Hinterland theory focuses on the exploitation of rural areas by the urban, leaving agriculturalists at a disadvantage. (See G.S. Basran 1992 for a discussion on this) While disciplines such as biology and agricultural sciences tend to employ reductionist methodologies focusing on the physical environment, work concerning agriculture in sociology tends to employ reductionist techniques focusing on people. Stedman et al. (2004) conducted a study concerning the correlation between resource dependence and community well-being. By breaking down different factors influencing such communities and conducting comparisons between variables, the authors attempt to find a link between the physical environment (resource dependence) and people (those communities involved). While this approach would appear to include more constructivist topics (such as meaning, identity and place) the study focuses exclusively on the variables of family

poverty, unemployment, education attainment, median family income and five-year immigration rates. This data is then correlated with the proportion of a population working within specific industries. Thus, the well-being of agriculturalists, as one of the industries studied, is determined using economic variables. While social statistics and scientific approaches concentrating solely on the physical environment and economic variables can be extremely useful, they exclude constructivist views.

An alternative to the realist conception of the environment as an entity separate from human understandings and divisible into separate components of inquiry are approaches which favour the power of interpretation, imbued meaning and the notion of place. Fitchen (1991) wrote an account of identity and survival of agriculturalists in New York during the 1980's farm crisis in which many farms faced insurmountable financial difficulty. In her account, Fitchen finds that ruralness is a matter of space (land) and uses of that space. Community members in her study (not only agriculturalists) felt deep attachment to their environment through an understanding of it as a rural farm-scape. Farms became part of a cognitive landscape as well as a physical one so far that the main geographical referents people used were not hills, rivers or other more imbedded aspects of nature, but were instead aspects of farms and their buildings. From this perspective Fitchen understands landscape to be both the setting and symbol of rural life.

Working with a similar approach Cronan (1991) states that fences and fields, as integral parts of rural landscape, are embodiments of environmental partitioning which make farming possible. As well, these fences and fields also express underlying property systems, thus ownership and property rights. The notion of land as interpreted space and as human-created place can be further expanded by adding a dynamic lens to the issue.

Hirsch and O'Hanlon (1995) understand landscape to refer not only to the meaning imputed by people to their culture and their surroundings but also to a process rather than a static entity.

> There is not one landscape here, but a series of related, if contradictory moments – perspectives – which cohere in what can be recognised as a singular form: landscape as cultural process. (Hirsch and O'Hanlon 1995:25)

Here it is suggested that for the researcher there are two landscapes; one that is initially seen and a second that may be eventually seen through fieldwork and interpretation. Understood in this way, the physical earth, land and soil should be primarily understood through the various forms of human meaning and understanding layered upon it; as part of a process that "relates everyday social life to a potential social existence" (Hirsch and O'Hanlon 1995:22.). Similarly, Gray (1999), when researching the importance of place and space in the lives of hill sheep farmers on the Scottish borders, understood landscape and place through an approach that privileges the practices through which those who use space make them into meaningful places. Gray accompanied shepherds as they walked or biked through their hilly surroundings and created places imbued with their personal experiences. While maps may represent the world in a textualised form, they can not express the acts which are constantly in the process of creating it.

While for many these two understandings of land are too contrary to be understood together, there are those who have strived for comparison and to some extent amalgamation. In an earlier work, Stedman (2003) points out the gap in literature stating that:

> Although sense of place definitions nominally include the physical environment, much research has emphasised the social construction of sense of place and has neglected the potentially important contributions of the physical environment to place meanings and attachment. (Stedman 2003:Abstract)

Stedman's research tries to lessen the polarization of environment and social understandings of it by correlating feelings of place and variables of the physical environment. The purpose of his work is to determine if the physical environment contributes to sense of place through specifiable mechanisms. From this approach, the physical environment can be seen as setting the bounds for forms of social construction. In other words, the world, at least some degree, constrains our conception of it. Stedman's study showed that the degree of *attachment* to surroundings had very little to do with physical attributes, while *satisfaction* with ones surroundings showed direct correlation with attributes of the physical environment. However, the limits of scientific research still separates people's perceptions of the environment and the physical environment itself in a way possible only in abstraction.

Despite these difficulties, there are many authors who have succeeded in bringing together both the idea of land as an entity and as a human construction, whether intentionally or not, through a more ethnographic approach. Agriculture is particularly well suited for this as by its very nature, it is a mesh of both the physical reality of land and its socially-embedded elements. By depicting the everyday actions and concerns of farmers, such authors are able to depict the intertwined nature of land. Thus portraying a reality in which the physical land and its biological make-up, the land as identity and meaning, and the land as it represents economics and politics are inseparable. Fitchen's

(1991) account of New York state farmers does this well. While she certainly concentrates on meaning, identity and the importance of community, she does not divorce the farming experience from the science of land, its measurable productivity and economic importance. Likewise authors such as Bogue (2001) who, through biography, depict farming reality as they remember it, as romantic alongside of economic and as produce meshed with meaning, are in fact providing proof of the necessity for both a realist and constructivist approach to land. A farmer can neither feed himself with the meaning of place and land-based identity, nor understand himself as a farmer with only the soil and its chemical make-up for accompaniment; in life the two are messily entwined.

2.2 A Farming Portrait:

Following any of the above approaches, land and conceptions of it has immense importance for farmers. Gray (1999:446) suggests that hill sheep farmers in Scotland come to "organize and experience their daily lives around requirements of their sheep; and conversely sheep come to embody a shepherd's knowledge and skills as a stockman" If this is the case for grain farmers, land would not only represent economic, cultural, environmental significance but would also embody the essence of knowledge itself. Research focusing on farmers must inevitably rest its gaze on the very environment they find themselves in and the actions which take place within it. Such surroundings and actions both make and are made by farmers, and subsequently, particularly in a study relating to the knowledge and practices of farmers, they must be discussed. The following

is a brief description compiled from various interviews and observations of the land-based actions in the yearly cycle of a northern grain farmer.

I arrived in Fort Vermilion at the end of February for a short stay with the intention of conducting preliminary fieldwork, making contacts for future visits and confirming accommodations. During that five day visit, I also had the opportunity to have coffee with different farming families and to sit in on a few conversations between different community members. At that time, there had been less snow accumulation than usual in the area and the primary concern of those I met was that the snow pack would be insufficient to supply the needed water for that year's crops and dug-outs. There were predictions of drought expressed by some. Others felt confident that spring snows and showers would be sufficient to provide the needed water and that a smaller snow pack now would be beneficial as it would reduce drainage needs for the spring. Water, I would learn, is one of many elements which are in an almost constant state of discussion, debate and prediction throughout the community. Much of a farmer's year depends upon a balance between having neither too much nor too little of any given thing.

A farming year can vary greatly between different farms - depending on size, weather, crop choice, economics and personal preference. However, through amalgamating numerous descriptions, one can portray a rough outline of what a year would consist of for a northern grain farmer. It works with the seasons I was told, and all year round a farmer is constantly planning and making decisions concerning his fields. For the purpose of this chapter, a year begins in early spring, where a farmer must first obtain enough seed to supply his fields. If the seed is his own, derived from previous crops, then it must be taken to a cleaning plant in a nearby community and then brought

back home; alternatively one can buy the seed already cleaned. This can be done once decisions have been made as to what crops will be planted and on which fields. Usually at this time of year, the fields are too wet to access with equipment and so the concentration lies instead on the maintenance of machinery that will be needed in the upcoming months. This includes oil changes, repairs and general tune-ups. For those whose fields are not naturally sloped or for those who rely on a dug-out for domestic water use, this is also the season of drainage. Many farms are criss-crossed with a series of ditches which gradually slope away from farm land toward a collection source - usually a river, stream, dug-out or slough. The drainage period can be crucial for those farmers who use the water during the year and for allowing early access to fields; as more area becomes opened up the drainage process can take less time. Sam, a local farmer, described this change as follows:

> **Sam**: Well, we have probably the same amount of, we all use surface water there is no ground water for use here so we all use surface water and the surface water is probably the same amount. But it its down a lot quicker in the spring so you better be on a ball in the spring to catch it. To fill up the dug-outs we all run off the dug-outs. Water use, we used to have we used to have like I don't know two or three weeks time to let it drain into the dug out now it's a matter of two or three days.
>
> **Jodie**: Really
>
> **Sam**: You better be on a ball to catch it. If you get the right weather, two maybe five days then its done.
>
> **Jodie**: So you have ditches and you make sure they are running in the right direction and you make sure they are clear and…
>
> **Sam**: Yep keep grass in em, and what ever, and then so you don't have any silt and stuff going into the dug-outs and so any natural drainage you keep. Make sure there is grass in em and then with the direct seeding that solved that problem where you don't have any silt getting in.

Some farmers prefer their entire fields to be accessible and so will create ditches in such a way that very little, if any, land is in a low lying or boggy area. Others prefer the assurance of remaining water and will gladly work around those few spots. Field preparation begins once the snow is melted and drained to a degree that the fields are dry enough to avoid major damage from heavy equipment. This can take many forms depending on individual practices. The practice of zero-till has become popular in the area, whereby the ground is not at all disturbed before seeding. Others may use minimum till methods or alternatively use harrows that will work the first inch of top soil, a practice that some believe warms up the soil to receive seeds better and locks in remaining moisture. A third practice is conventional tillage where farmers will cultivate land in the fall and seed and harrow in the spring. Seeding equipment is usually owned by the farmer himself and is pulled behind tractors.

At this stage the land is ready to be seeded. Many use air seeders which apply fertilizer and seeds in one pass. If desired, this piece of equipment can then be followed immediately by a packer that will press down the seeded land. At this point, many farmers will differ as to when they will apply certain chemicals to avoid weeds, pests or diseases. Often, however, there can be a one to two week wait before sprays are applied to the fields. At this stage such sprays tend to be primarily for weed reduction. It was expressed by some farmers that those using the zero-till process tend to spray more as weeds have not been disturbed prior to seeding. Smaller farmers or organic farmers, of which there are some in the Fort Vermilion area, do not spray their land at any stage. Some farmers own their own equipment for spraying; others rent it or hire the process done for them - this is referred to as custom spraying.

At this stage the fields have been prepared and the focus shifts towards servicing and storing machinery that will no longer be used; preparing any remaining machinery such as swathers, combines, augers and grain trucks for the coming harvest; and then, to waiting. By July, crops are well on their way and fields are frequently visited to monitor growth and, most importantly, to keep an eye out for pests, disease and weeds that may be counteracted. Here there is a momentary lull where concerns about yields, weather and harvest can not materialise into any action and where neighbour's fields are visible to all passers-by who care to look. This is also the time where farmers have the most amount of free time and are more available for community groups and socialising. Some farmers spend considerable time each day walking to and from fields, stopping occasionally to inspect particular stocks, seed and pod development.

As the summer continues and the long northern days have their effect, crops get nearer to maturity and a close eye is kept on the fields. Maturity is reached at different times depending on the crop. For instance, the maturity of canola can be determined by watching for changes in color. Canola seed ripens from the bottom of the plant upwards; the top seeds will stay green while the bottom seeds are ready. When approximately the bottom third of the majority of pods have a dark color, it is time to cut. At this point, there is enough moisture left in the stalk to mature the remaining seeds even when cut. Other crops, such as wheat, mature more uniformly. Harvesting can begin when the majority of the seed is mature, but farmers must not wait too long as the seeds may begin to drop. Some farmers begin working their fields before others, but slowly the entire area is worked by farming families who have chosen a particular window of opportunity to begin harvest. It is common for husbands, wives and children old enough to run

machinery to work their fields from morning until well into the night. More than once I heard stories of farmers viewing the northern lights from their machinery while still working their fields. However, once fields are too wet from dew to work, the farmer must halt work until the next morning when they are dry enough to begin again. Working wet crops can be damaging to the plant and can cause time consuming jams in machinery.

The exact process of harvest varies greatly depending on the crop and personal choice of the farmer. Some crops are more susceptible to rain damage than others. Some need to lay longer on the ground. Others are harvested immediately while still standing in the field. Most farmers have a variety of crops growing at once and need to make decisions as to what will be harvested first. Some work crops that are most susceptible to damage from animals first, such as peas which are damaged by geese. For many the first fields worked are those with crops that need time to dry on the ground and will not be too damaged by rain. Such crops include canola which can often lay on the ground between two and three weeks. Other crops need to be harvested quickly and with the least exposure to rain. Wheat can degrade very quickly, and for crops such as oats, which go through a visual grading system to determine quality, any change in color due to rain reduces the final price.

Primary harvesting equipment includes the swather. This machine has a header that cuts, gathers and conveys the crop into windrows (linear piles) which will later need to be picked up by another piece of machinery such as a bailer or combine. Another primary piece of equipment is the combine, which picks up and thrashes the grain out of the heads or pods of the crop, separates the straw and runs the seeds into an auger which

will move the seeds into an accompanying truck. The combine is also capable of the straight cut; that is cutting, thrashing and sorting the plants as they stand.

Once harvested, grains and seeds are transferred from the field to grain bins or if there is not enough space, in piles directly on the ground. Many southern farmers are able to take more than one crop a year from their fields, but in the north the growing season is too short for that option. At this stage the grain usually needs to be aerated to dry it further. A certain percentage of moisture is acceptable, but often northern crops are harvested too wet and need an aeration process to further dry them. Fans are mounted at the bottom of large bins in which the grain is placed and the movement of air usually drops the crops moisture content down to an acceptable level (somewhere below 14.5% moisture). When needed, heated air can be used to dry the grain. Most farmers own moisture testers, a meter which when compared to weight, can determine the moisture content of a crop. Often a test batch is taken to the grain elevators (the location where grain is often bought and stored before shipping). The farmer then uses his own equipment on that same batch to establish a benchmark against which his own grain is tested.

While grain is aerating, farmers service their equipment and put it away for the winter months ahead. Those with heated shops may wait to do this in the winter months, those without prefer to have their equipment dealt with before it gets too cold. By this time, fall has arrived and ditches need to be pulled. In the spring, once drainage has occurred sufficiently, many ditches are plugged to ensure remaining water is saved. In the fall the ditches need to be cleared to allow for spring drainage and perhaps seeded for grass. In the fall, some farmers also commission an agronomist to come onto their land to

test various fields for soil quality, the results of which help determine next year's crops and inputs.

Throughout the year, grain is hauled to local elevators, distant elevators, or commissioned rail cars (also known as producer cars) depending on farmer preference. Arrangements are made with the receivers (often elevators) for grain to arrive at certain times and while receivers have the right to turn a farmer around without off-loading if the elevators are full, the farmer does not have the right to be equally lenient with due dates. Until the grain is in somebody else's hands it is the farmer's responsibility, and there is always a fear of damage to the seeds (such as heating, a process in which the temperature of grain piles rises due to insufficient dryness, and grain quality is ruined through fungal or structural damage). This is especially problematic when crops have been paid for in advance.

By mid December, the ground is often frozen enough for forestry and oil equipment to move. Many farmers then head out to the 'bush' or the 'patch' to their secondary jobs; the income of which will subsidise their crop sales and allow for the costs of next year's fields. When asked what times were particularly stressful, the 4 to 5 weeks of harvest was invariably the response. In that time an entire year's wages are made or lost. Yet even when it is not harvest time, a constant eye on grain and fuel prices and another eye on the weather ensure that stress is never very far off.

2.3 Local Perspectives on Land:

How fields are viewed by farmers, what their boundaries are and how they sit in opposition to the bush is a recurring theme within farming. In Fort Vermilion, an area

with a recent homesteading past, the bush can represent the nature that had to be overcome in order to farm. While many farmers keep trees around their homestead and leave forested sections for windbreaks and wildlife channels, it remains as an entity that had to be 'pushed back' within living memory. Fields, on the other hand, are sculpted, created and watched over by farmers themselves. Fields are imbued with a sense of place and are a "...landscape of which people are proud: they are landscapes influenced by human work and craftsmanship, and the perception that this work is done well for good reasons." (Howard 1998:151). Often when farmers speak of their land, they are speaking of a place immensely personal to them; something of which they are proud, one with a specific beginning and often a family history. Frank and Jane, a married farming couple began our interview as follows:

> **Frank** : Actually we were the first ones to move to this area (south of LaCrete) in 1981... When we came here all the government had done was put the roads in here, they disposed of the land through a draw system so that was in the fall of 1980, so in July of 81 we got married and moved down here. Our neighbours were on the pavement back there.
>
> **Jodie**: So you were secluded for a while.
>
> **Frank**: Ya, we lived a year without power, phone, most services. Just make or break for marriage (laugh)
>
> **Jodie**: So you are not originally from this area?
>
> **Frank**: Yep, we were both born and raised here. Home-grown, we don't know any better (laugh)
>
> **Jodie:** What about your families, do they...
>
> **Frank**: My parents moved here, they were unmarried but they moved here in 1936 then they got married here in 1950. They have always lived here but they passed away around two years ago.
>
> **Jane**: My dad grew up here, they moved up here when he was two years old, so they have been here ever since.

Jodie: Were your families farmers originally?

Frank: Yes, they both were.

Jodie: Grain farmers or mixed?

Frank: Mixed.

Jane: Mixed.

Frank: We used to be mixed farmers but we have gone two years without cattle now. We are just grain now.
[...]
Frank: We own eight quarters so we do about 1100 acres of our own, then we joint farm with a neighbour 300 more acres.

Jodie: And all 8 quarters were from the draw?

Frank: No, we started off with three quarters, then we bought here and there. Stuff we bought wasn't bushed yet so we had to cut it (had to clear the land)

Jodie: How much is it that you have to clear in the beginning (of the homestead land)

Frank: You have to put 80 acres in seed bed or clear 160 acres, cut and pile 160 acres within the first few years.

Howard (1998), in advocating a place-based approach to understanding farming suggests that the tendency to view farming through economics, from an outsider's perspective, has produced a form of neglect in agriculture. He defines the knowledge of farmers as "...an unspoken grasp and understanding of the lived situation." (Howard 1998:152) and proposes that through understanding place from an insider's view, agriculture can be understood and improved upon. As stated earlier, in taking the insider's view point one can understand land as at once social, economic and biological. One of the social aspects of land that is often present is the memories particular fields or farms evoke of the sometimes numerous generations that have lived and worked on the

same fields. *Fort Vermilion People: in our vast trading north 1788-1988*, is a collection of life-stories of Fort Vermilion inhabitants as written by themselves or family members. Many of these stories, such as the following, are the written memories the land evokes:

> In 1952, John and Kenneth took up homestead land in the Fort Vermilion area, and that year started clearing land and preparing fields for seed. In the spring of 1953, they came back and sowed flax and wheat on their new land, which is located six miles east of the Batt Settlement. After school was out in June, the family moved north to live on the homestead...the summer was spent getting more land broke, raising a big garden, gathering a lot of wild berries, and getting to know all our wonderful neighbours...Warren (their son) spent the growing seasons helping his father on the farm, and during the first two winters after he finished school, he worked at the saw mill near High Level. He later started working in the oil field industry and lived in High Level for several years. In 1969 he married Gwen Paul, and they have a daughter Jody and a son Dennis. In 1973 they moved back to the farm and with lots of hard work, patience and careful planning, have built this into a successful farming operation. (Johnson 1992:406)

Fort Vermilion and surrounding hamlets are historically created through farming. Today their growth is still very much measured in acres of broken land and numbers of newly established or expanded farms. The communities are physically dominated by the mosaic of fields which both surround and connect them. While one's farm is limited by property boundaries, the sense of community created through the shared meaning of fields is only bounded by the surrounding bush.

When a full farming year is looked at, it becomes very difficult to separate economics, soil and crop science, meaning and identity. A farmer's year is cyclical, yet littered with overlaps. Land is at once understood as representing the monetary livelihood of a farmer, consisting of various environmental subsystems that need augmentation, and

representing a way of life and a place of immense personal and community attachment. It is in the everyday acts that these links are most apparent.

How land is viewed, and how it is connected to society, identity and economics is best understood by looking at the actions which take place upon land and the stories which emanate from it. For instance, on one occasion I had the opportunity to accompany a local businessman (who was also a retired farmer) and a neighbouring farmer on a truck ride to the next town. Upon being picked up the two commented to each other on a conspicuous line of grain running up the center of the road in the direction we were headed. It seemed someone had been driving a grain truck after harvest and had forgotten to close the bottom hatch that is usually only opened for dumping. They both laughed, knowing it was the farmer's son who had made the mistake, and recounted that they had done that many times themselves when they were younger. We continued the trip, the entire way filled with conversation between the two about the various states of different fields as we drove by, who was trying what, who started harvest too late or early and what animals were seen in which field.

Here the economic importance of grain is trumped by the inevitable losses which occur from having children learning and working on the farm. Field production can not be easily separated from social life in such instances and the experiential nature of learning and knowledge is highlighted in both men's remembrances of their similar mistakes. In this case, land is economic, social, biological and represents the knowledge (and the trials of gaining such knowledge) of the operating farmer and his family. Furthermore, such fields are on display for the community to see, as is apparent in the numerous remarks made by both farmers during our trip to town. The results of

knowledge are on display and open to community critique and praise throughout the year. How fields represent levels of ability, competence, ingenuity and risk are in constant discussion within the community. In this way, fields are both personal and very public.

Many of the above components of a typical farming year are immensely important for the act of farming as well as for perceptions of it. The need to work off-farm in the Fort Vermilion area is not uncommon. In Alberta, between 1996 and 2001 prices farmers received for produce declined by 7% while expenses increased by 11.9%. By 2000, for every dollar received in gross farm receipts, 90 cents went to operating expenses[3]. While these statistics speak to the importance of economics in farming practice, they also point to the number of farmers who are willing to work elsewhere to support their way of life and of the difficulties inherent in such a life. Furthermore, the form of secondary income could have immense impact on environmental knowledge. For instance the majority of farmers I spoke with who worked off-farm did so in either the forestry or oil sector (the bush or the patch). Fields are not the only forms of environment such people are working directly with. Their alternative employment, as well as their participation in acts such as fishing and hunting, adds to a broad understanding of both the environment and of what the environment means to them. Such interpretations of land are simultaneously economic, social and biological. They are often expressed through dialog which places such topics on the same scale of importance; as part of a lifestyle.

When multiplied to create a landscape filled with fields as far as the eye can see, farming activities come to define seasonal changes as much as falling leaves or migrating animals. Such activities influence and become influenced by local economics, politics, moving networks of produce and inputs as well as networks of knowledge and policy.

[3] 2001 Census of Agriculture, www.statcan.ca/english/agcensus2001.htm, accessed May 2007

Fall and spring in this region are ushered in by the machinery of planting and harvest. Minimal snow fall during winter months is felt with tension for both farmers and non-farmers and winter months are characterized by a migration of men and boys to the mills and oil fields. This landscape is concurrently economic and social, representing the physical means by which individuals and the community in general survive, but, also it is a physical symbol of local identity, meaning and knowledge.

In Fort Vermilion, land, predominantly characterized by fields, represents knowledge in practice; not only through the concrete application of information gathered over generations but also through the relationships acted out upon it. Farmers are experts of their land, through a combination of experiential trial and error, incorporation of external information, and personal preference. Their knowledge is put on display, acted out, and communities across Canada are the audience, critics and consumers. Yet, it is all too easy for outsiders to reduce this display to exclusively economics or biology. To the insiders, the community members themselves, the physical land and the actions upon it simultaneously represent these things, but also represents history, family, humour, and community. Here the landscape is indeed one of processes, stories which occur and afterward are invisible to all except those who remember. For them, that place becomes personal, imbued with sincere meaning which includes the more tangible aspects of land. While the mechanisms through which farming is acted out have changed, the fundamentals, that is the relationships and negotiations between influences, are a relative constant, varying more in intensity than form.

Chapter 3

Negotiating Urban Influence in Rural Place

Urban influence in the form of policy, development and research priorities, agri-business, environmental regulation and consumer trends has been steadily increasing in rural Canada. Such influences regulate much of rural life while at the same time rural areas continue to identify as separate from the urban. Both urban influence itself, as well as the mechanisms rural residents employ to negotiate such influence, affect how environment and community are perceived as well as the knowledge held of them. How knowledge in the abstract is understood, that is, perceptions of what knowledge is and of who holds it, is also very much influenced by urban actions, opinions, and trends. In this chapter I will discuss the ways through which the urban influences rural daily life, how this is negotiated to fit within a rural identity of not-city and how the form of local knowledge is subsequently influenced. Furthermore, in highlighting the ways in which people from rural areas actively negotiate and maintain their identity, some of the distinctiveness of rural farming areas will be expressed.

In popular culture there are prevalent generalizations of the west as urban centers: the places of technology, education, government and law. When the rural is considered it is an aboriginal space, a park space, or a space of industrial or romantic agriculture. Urban people often conceive of farmers in economic or historic terms or alternatively through their physical occupation of space which is used for other means, such as oil and gas development, forestry and mineral extraction. Furthermore, rural Canada occupies a huge geographic space, yet the images that create the urban conception of it come from

very particular instances: the drive between two cities, camping, a rural family member occasionally visited, sit-coms, the news. Epp and Whitson (2001) have recorded this urban view and have gone so far as to suggest that to the urban, the rural simply provides food and occupies dumping and recreational space.

Within rural culture, urban space is consumer space, where livelihoods are made and lost on the trends of an unknown public, where the crops of next year are determined. The urban represents the international markets that farmers are dependant upon (Ironside 1984) and a consumer space that uses the wood and fossil fuels that provide the second income allowing many to afford farming. The urban is the creation of laws, funding allocation and cuts, where borders are moved or maintained. It is an educated space, where experts are housed who apparently understand environment and even agriculture better than rural residents and where their children are provided with opportunities not locally available. It is where knowledge is defined by agricultural scientists (Kloppenburg Jr. 1991) and where legal rights trump moral obligations (Gaffin 1997). Urban space is where rural images come from that construct rural reality almost as much as they express it. The urban is ever present within the rural, it is the source of both incentive and setback.

Yet the rural is paradoxically un-urban: affirmed by many of its residents who declare they would never want to be in the city, by proud virtue of distance, morals, values and lifestyle. By being rural they are, often emphatically, not urban. However, at least within this research community, these same residents are very much aware of the influence of the urban on their daily lives, indeed most see urban influence as an accepted and historic presence. How then do rural residents negotiate the urban influences and

subsequent power inequalities that make up their reality and culture? How do they fit within a bureaucratic system of rules and procedures that are often ill-constructed for their physical and cultural reality? I will argue here that, at least within one rural farming community, there is a system of labels, ideologies and boundary maintenance techniques, which allow the navigation of an inconsistent system seemingly run by a powerful 'other'.

3.1 The Contradiction:

Williams (1973) remarks that one of the most striking characteristics of the rural is the co-existence of persistence and change. For centuries, scholars have been predicting the decline of the rural life[4] around the world, yet much like the 'disappearing Indian' its persistent existence has been a strong roadblock to this theory. Though rural change may seem accelerated in the face of increasing globalisation, change to the country is not a new phenomenon. Williams was able to illustrate that as far back as the fourteenth century, noted authors and political figures forewarned of the loss of the country way of life. Indeed, he suggests that the presence of change is a common characteristic of rural life and that through this change certain perspectives, ways and practices have been carried through and subsequently makeup what 'country' is. Both rural spaces and the images and people that accompany them have continued to thrive and weave their way through changing technologies, fashions, religion and government, to contribute to the cultural and physical reality of the modern world. While what rural is has both physically and conceptually changed, popular conceptions of root contrasts

[4] See Williams (1973) for examples and further discussion.

between city and country still thrive: busy vs. calm, educated vs. ignorant, polluted vs clean, and so on.

Many would argue (Williams 1973, Gaffin 1997, Ching and Creed 1997) that along with such enduring contrasts, what is most persistent concerning rural life is the imposed marginality and continuous exploitation of rural people and space by the urban.

> What the oil companies do, what the mining companies do, is what landlords did, what plantation owners did and do. And many have gone along with them, seeing the land and its properties as available for profitable exploitation: so clear a profit that the quite different needs of local settlement and community are overridden, often ruthlessly. (Williams 1973: 293)

There are varying accounts of the consequences of, and reactions to, such urban influence. In an article by C. Ray (1998), the impacts of extra-local forces in small rural European communities are looked at in terms of locality and identity. Ray approaches the concept of local knowledge with the idea of the 'cultural economy' in mind and suggests that the growth of regionalism in Europe is an "attempt at self-promotion in order to preserve cultural identity and socio-economic vibrancy" (Ray 1998:4). As rural communities are unable to avoid larger global markets, they attempt to create a situation in which their 'identity' becomes a leading referent in guiding local action and policy.

It would be difficult if not impossible in Alberta to find an agricultural community that is not being imposed upon in someway by 'others'. In an article by Stirling (2001) the creation and impact of the 'farm crisis[5]' is outlined. Stirling depicts

[5] A combination of high interest rates, increasing farm operation costs and low product prices during the 1980's which led to the sale or foreclosure of a substantial number of farms. Some would argue the crisis has not ended and current farming reality is an extension of the crisis.

Canadian prairie farm history as a constant struggle to keep control of farm work as various political, economic and academic forces have vied for a portion of it. According to his account, despite numerous hurdles in settlement, agriculture ultimately became established due to the formation of intricate helping patterns, systems of knowledge, sharing and reciprocity: a form of social capital which has been under duress since the beginning of the post-war period. Since then, Stirling argues, agriculture has had to meet increasing demands for productivity and subsequent non-human inputs. As a consequence, small farms were coupled with the notion of inefficiency and farm numbers began to decline as their size grew. Yet, Stirling suggests the 'farm crisis' is not only economic but social: the above factors have led to the decline in local culture, which is needed in order for rural life to be sustainable. Epp and Whitson (2001), outline some of the broader issues at stake in Canadian rural areas. The authors argue that in the face of global influence, provincial and federal governments have shifted roles away from the overall better good and social development of areas towards the economic bottom-line. The rural west, they argue, has been fundamentally abandoned and in turn has often become either the playground or dumping ground of urban centres. Furthermore, often while money is being made, it does not stay within local circulation for long. Epp and Whitson paint a grim picture of today's rural west, and suggest that anyone studying the forces which impact rural areas should also look at effects on the minds of those people whom these changes impact.

Particularly important to understanding urban/rural relations is Barth's (1969) theory on border maintenance in which he postulates that it is not the absence of interaction that keeps up a group's identity, but the maintenance of boundaries, identified

and ascribed by the actors themselves. In this way cultural differences can persist despite interdependency. Yet this boundary maintenance is not unproblematic and when there are two or more groups competing for the same niche, either inter-dependence will create a balance or one group will be displaced. If we extend the idea of 'niche' to include economic markets, we can see this displacement taking physical form in the mass rural-depopulation of the last half-century across Alberta and many places throughout the world. While many agricultural areas still persist and have found ways to balance their existence and identity with influencing outside forces, some have changed or left the area altogether.

Urban influence in rural areas is not a new phenomenon. In northern Alberta, and throughout Canada in general, many rural areas were actively encouraged in a national drive to further develop the settlement of, and expand the country. External influence in Canadian rural areas is found at the very beginning of settlement through a national need for development. Morris Zaslow presented at the 1988 Fort Vermilion and Fort Chipewyan Bicentennial Conference on the need for continued transportation infrastructure in the region. He began his presentation as follows:

> From the beginnings of Canadian history down to the 1960s, Canadians accepted without question that developing the natural wealth of the country was the surest most proper path to national greatness. The extension of Confederation to the lands beyond the Great Lakes wakened visions of a gleaming future among many Canadians of that day. ...In keeping with this belief, an energetic drive was launched to settle the vast stretches of the almost empty "Great Lone Land" inhabited only by nomadic Native bands at Stone Age level of civilization that barely subsisted off the wildlife resources of their homelands. In their stead, a full complement of agricultural, forestry, mineral and other resources of those lands was developed to give rise to a large, modern, prosperous nation. One needs only look about Canada to see how successful the drive has been. (Zaslow 1990:20)

Though Zaslow's description of existing native populations at the time of contact in northern Alberta is questionable, it does represent an opinion held by many at the time of settlement. Beginning with the impact on the original aboriginal population of the area and continuing with European and Canadian settlers, today's Fort Vermilion region was founded upon a distant and urban authority's need for development and expansion. Whether or not settlers throughout the 20th century (up to and including 1970's homesteading) were driven by patriotic desire to establish their country, they were encouraged through a government which allotted land and provided resources. From the establishment of the trading post, missions, the experimental farm, transportation routes, agriculture, to today's massive resource extraction industries, rural northern Alberta has been substantially driven by external, urban need. Over time the geographic space that separated the rural and urban became less insurmountable and the rural began to share in the same institutional settings as the urban; thus bringing to light the urban presence that always was.

The paradox here is that a very persistent contrast between city and country is the perception by many that the city is bound, enslaved by modernity and restricted by bureaucracy while the country remains free, unencumbered and natural (Williams 1973). Such a social construct of space has influenced the space itself, both rural and urban have become, to some degree, this contrast. And subsequently, despite immense changes in landscape and in the place of people within it, the rural holds strong to the ideal of not-city. People *feel*, often strongly, that they are different and it is this feeling that perpetuates much of what rural is understood to be. Yet how does one remain and

identify as rural when one is also bound by the urban processes of capitalism and consumer imagery?

3.2 Urban Influence on Rural Place:

Perhaps it's best to begin with an aforementioned underlying assumption: that the Canadian rural, in this case a northern farming community, is under the exploitive power of the urban. Grain farmers make their living and act out their identity through interaction with their land. The very act of combining, seeding or spraying a field is a reciprocal manifestation of identity: I am a farmer because I farm; I farm because I am a farmer. More than almost any western profession, the lines between job and self identity are blurred, indeed there are an increasing number of farmers who work off-farm to subsidize and allow for their farming lifestyle. In this situation, human-environment relations are manifested in a wholly different form than for those who experience their environment through other means, such as hiking or camping for instance. Ching and Creed (1997) have demonstrated that direct economic dependence on natural resources does not preclude an appreciation of nature. Taking this farther, I would suggest that in the case of many farmers such economic dependence has the potential to bring notions of nature to a level beyond appreciation: that is identity-dependence. The physical acts through which farmers interact with their land are rituals and performances which define who they are. Subsequently, the knowledge they hold of their land is in some respect, immensely personal.

Yet the city is able to intrude on this performance; ideally, making it economically feasible. Historically, while many farmers in the Fort Vermilion area

farmed for subsistence for a time, they were part of a state led campaign to settle the west and north. While state interference may have felt minimal to those in such secluded areas, it was nonetheless both present and necessary. Over time the power of the market has become disproportionate to that of the farmer: which crop, which seeds to be bought from where, which machinery to be used, quantity and form of non-human inputs (chemicals and fertilizers). Even the alternative routes are made possible through consumer demand (organic produce, grain-fed chicken), the knowledge used to incorporate such information into the farming performance (professionals, conferences, magazines, help-lines), and finally, the price of final output, fundamentally constraining the choices for the next year. As stated in the previous chapter, land is often simultaneously viewed as environmental, social and economic, yet it is also fundamentally rural and therefore urban presence creates a contradiction which must be addressed in order for rural identity to remain.

3.3 Physical Presence:

Urban influence can also be seen in a much more immediate sense. In 1987, Brooks wrote an account of a central New Jersey rural area being increasingly inundated by suburbanites. These newcomers viewed farmland more as public open space than private property. With this view, suburbanites often trespassed on farmland, stealing easy-access crops such as corn or fruit, walking through fields and damaging crops and even taking fuel and batteries from farm equipment left in fields. Because newcomers did not share the same values and attitudes with regards to farmland, conflict became a continuous issue over smells, noise, land use and access. Twenty years later in a northern Albertan community, much of this story can be told again: hunters who access land

without asking permission, unwanted guests leaving gates open or leaving damaging ATV or snowmobile tracks across productive fields, youth who vandalize 'abandoned'[6] buildings or hunting organizations who express anger when not allowed on private land . Even when there is no immediate precedent, stories heard through the media leave farmers hesitant to allow non-farmers too near their land. For instance, in Fort Vermilion it is possible to subdivide one's land and allow for quarter sections to be developed into

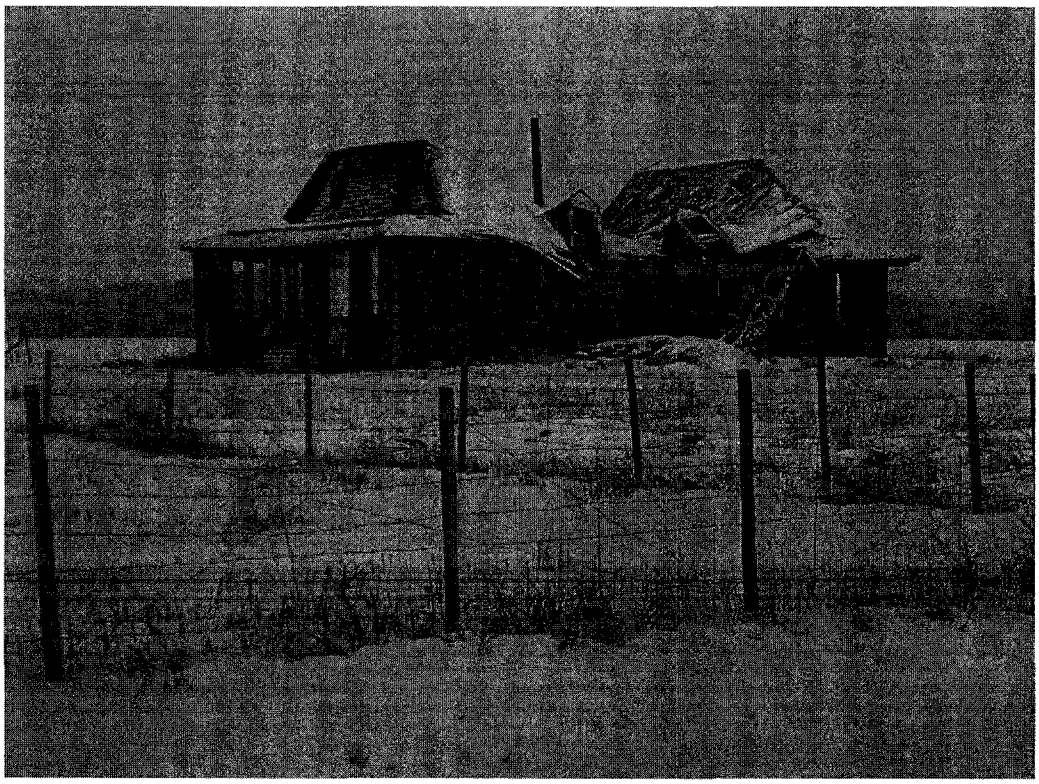

Figure 3: One of many old buildings which are part of the landscape throughout the Fort Vermilion area.

homes for non-farmers. Yet all who expressed a hesitancy of this practice did so for worry that these new neighbours would complain about noise, smell or chemical use and

[6] Many of these abandoned buildings are the original homesteads of farmland and are of emotional and aesthetic importance to many farm owners.

disrupt their farming activities. Dale, a municipal employee who works with subdivisions described to me some difficulty over a particular subdivision:

> **Dale**: ...the one that we are having trouble with is multi-lot subdivisions in agricultural areas, in the farming community.
>
> **Jodie**: So that would be for houses?
>
> **Dale**: Yep, for houses, for example...this land (pointing to a map) four years ago was rezoned to 'rural country residential', and at the time we sent out to all adjacent land owners' notification that it was going to be rezoned to 'rural country residential'. Nobody said a word about it. So it got rezoned. And at that stage individual adjacent landowners have the right to appeal and they could stop it, but past that stage they have no rights after. So it sat for four years, rezoned, nothing ever happened. Well last year a guy bought the land and he applied to subdivide that whole quarter into forty lots. Now they are upset, very upset. They're like "no, we don't want that" and they are still fighting even though it got approved... they don't want a bunch of people riding their quads and bikes up and down their fields. They are fearing um, people will have dogs and they will chase cattle. Stuff like that, they are fearing that. The non-farmers are going to complain about the smell of cattle and that, that stuff the farmer can't help, noise too.

Dale went on to suggest that one of the possible reasons why no objection was made to the land rezoning was a poor information dispersal system. For instance, many farmers do not receive or do not read the newspaper, which is the primary form of publicizing zoning changes. Dale also suggested that those who do read the notice are not well informed about the impacts such rezoning may have on them, nor what their rights are concerning objection and the time limits of such objections.

The Farm Business Management Council, in 2000, published a resource for farmers on how to better relations with their non-farming neighbours. The guide suggests that as farmers must now answer to many people (i.e. urbanites, stakeholders as well as federal, provincial and regional governments) that it is in the best interest of farmers to develop, as the mining and forestry industry have, a public relation scheme for their

business. One hint within this guide in how to avoid conflict, is to be a good farmer by conducting a farm audit, keeping the farm clean and neat and to clean up any messes as soon as possible. In such circumstances, it is not only the distant urban that influences farming through consumer practice and regulation, but the urban that has influence through its physical presence and differing concepts of place, property and of what is aesthetically pleasing. More so, it is clear that an urban view of the land is adopted by organizations such as the Farm Business Management Council, who see farming as exclusively a business and therefore in obligation to be neat and tidy so as not to upset the sensibilities of non-farmers.

3.4 Alternative Employment:

The non-farming economy on which a majority of agriculturalists depend is also much tied to the forces of consumerism and urban trends. Forestry, oil and gas businesses employ many farmers who need off-farm income to survive the year. In Canada in 2000, only 7% of unincorporated farms earned 75% or more of their total income from net farm income, and less than 18% of all farm families depend on net farm income for more than half of their total family income (Statistics Canada, 2001 Census). Not only is the vast consumption of such resources done by urban centers, but the rules that govern where and when such development can take place are largely decided upon within provincial and federal governments, of which the entire Peace River region has only one provincial representative (see Figure 4). A political system which bases political representation on population as opposed to land mass or resource base is a system which represents urban values and perpetuates a belief in urban centres as having more power than rural areas.

Such industries not only affect the working environments of many rural residents but the physical as well. As stated earlier, the Fort Vermilion region was historically developed through a desire to exploit the natural resources of the region, originally through fur trade then later forestry, agriculture and oil and gas. Since the foundation of the settlement, those involved in agriculture have also been involved in other forms of resource extraction, opportunities made present by an external need. Given the resource-dependant nature of Fort Vermilion, in such an instance rural residents are very much dependant on urban desires and processes to both protect the space in which they live as well as control its exploitation.

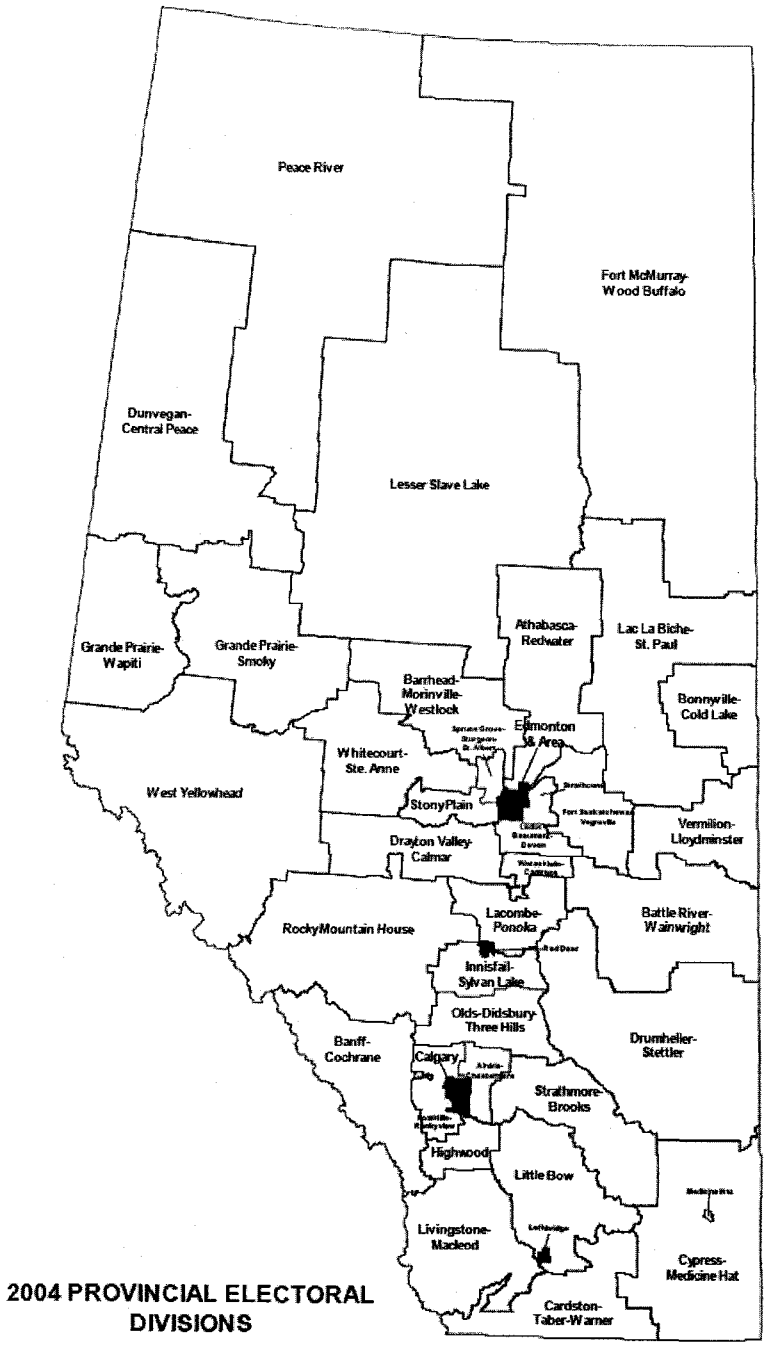

Figure 4: Provincial Electoral Divisions
Source: Alberta Provincial Electoral Divisions 2004 Profiles
www.finance.gov.ab.ca/aboutalberta.ca

3.5 The Conception of Knowledge:

How farming knowledge is conceived is also largely influenced by urban sources. Jack Kloppenburg Jr (1991), in a paper regarding agricultural science and its use of the local knowledge of small or alternative farmers, found that an over-reliance on agricultural science is leading to a view of farmers as receivers of information rather than producers of it. Kloppenburg suggests that science, but more specifically agricultural science, is not a complete or adequate account of agriculture. Science is specifically situated and there has been a historical over-reliance on its authority.
Kloppenburg suggests that as exclusion plays a major role in the social demarcation of science, it will be agricultural science that determines the direction of any new and innovative approaches to farming, to the detriment of farmers. A fundamental flaw with regards to agricultural science is its practice of Cartesian reductionism. By breaking problems down into distinct pieces and analysing them as such, rather than as a whole, scientists detach experience and nature; thus objectifying nature in a way that simultaneously disregards the viewpoint and environmental understanding of those who work on the land. Reductionism does not give credit to the holistic nature of farming and can subsequently find 'solutions' to problems which do not benefit the farming landscape as a whole, or which can eventually negatively impact it.

However, I would take this argument farther and suggest that in many cases a farmer's reliance on agricultural science has created a perception of farmers as receivers of information not only within the scientific community and general public, but also within the farming community itself. With an increased reliance on external information,

agriculturalists themselves begin to deny their own knowledge and, like much of the western public, feel they should instead rely on the objectivity and cumulative knowledge of specialists. Thus, during my fieldwork it was continuously suggested to me by local farmers that I would find the most information through speaking with those who held university degrees in agriculture or by speaking to specialists employed through the government, municipal district or local experimental farm. By influencing the very concept of what knowledge is, i.e. scientific as opposed to experiential, the tools of self-determination are lessened and a rift is imposed between farmers and their land. This is not to suggest that within Fort Vermilion local agriculturalists relied solely on external information to govern their farming practices; many have farmed their entire lives and, when it comes to the *act* of farming, often rely largely on their own experience. This alienation of farmers from knowledge is more subtle as it concerns the conception of knowledge more than the practice of it.

3.6 The Next Generation:

Perhaps the most telling influence of the urban on farming reality is its influence on the children of modern-day farmers. Eighteen of the thirty three interviews conducted were with practicing agriculturalists; all farmers I spoke with would prefer it if their children did not farm themselves, with the exception of farmers in two families. The reason was invariable: the costs are too high, it is too unsure of a lifestyle and the products and services to which their children are exposed through school and work will be unavailable to them through such a poor paying occupation. Their children were well aware of financial difficulties during the 1980's recession, of the impact of the final

abolishment of the Crow Rate in 1996[7], of the BSE market drop and more recently, of the impacts of higher fuel costs. Furthermore, they are aware of the profits to be made in the oil, mineral and forest industries as well as the routes available to them through higher education or alternative employment in major urban centres. Subsequently, urban economic and consumer influence has had an effect both on the generation of young people that could potentially take over family farms as well as the farmers themselves who see it as increasingly unreliable in providing the basic needs of everyday life. George, a farmer, feels that farming is no longer a sustainable way of life:

> **George**: Why would you want to starve on a farm when you could make a good living with the oil?
>
> **Jodie:** Do you have children that want to farm when you are finished?
>
> **George**: No, one is in University and the other one is taking grade 11. No, they like the farm, one wants to be a vet and come back here as a vet, but ah. They are not farmers.
>
> **Jodie:** Would you have wanted them to be, or is that something you wouldn't have wanted?
>
> **George**: I wouldn't encourage them to be, unless they have something to subsidize it with. I don't think I could make a living off this farm without doing something else, you know. My wife works, that's a full income coming, and with me in the oil patch we can afford to live on the farm. But just straight farm income there is no way. Unless I want to go back to a wood stove, no running water, and, all the luxuries. I grew up that way.

These sentiments are similar to those expressed by many farmers who see the dwindling number of young people farming. Judy, a retired farmer, feels the lifestyle is simply too difficult to entice young people to stay:

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[7] Subsidized transportation of grains on Canadian railways, established in the early 1900's, changes to the given rate began in the 1980's leading to eventual abolishment in 1996. Subsequently for many farmers the cost of transporting grains rose dramatically.

> **Judy:** They (younger generations) don't stay to farm, it's a very hard life, its very hectic, in order to farm you have to have a secondary income. Most of your Mennonite people are logging, they log all winter and farm in the summer. ..all my children are gone, they didn't stick around. We just didn't see a future in it here.
>
> **Jodie**: Would you have liked them to stay and farm?
>
> **Judy:** If we could find a farm base, we couldn't expand far enough for them to stay in. The land wasn't opening up fast enough at that time, it wasn't economical. No.

Similarly, Ezra and Mike, a farming couple who have seen the population of Rocky Lane steadily decreasing suggest that young people have seen their parents fight too many obstacles:

> **Ezra:** I think a lot of the young people here saw their parents go broke, in the 80's, when mortgages jumped 20%, uh a lot of the young people here have seen the price of Canola which was 8 dollars in 1979 drop to 2 or 3 dollars, and you know the price of gas goes up. And they saw the cattle industry fall out cause of the BSE.
>
> **Mike:** I think the biggest impact though is that the farm kids don't have as much money as the kids in town...

The fate of future generations is a topic of huge concern in the community. Though this research did not focus on lives of young people in such rural areas, two interviews were conducted with people in their early twenties as well as some participant observation through participation in the mom-and-tots group. This revealed that young people express similar feelings to those of the older generation regarding the draw of urban areas and of well-paying employment in the oil fields. Sarah, a young mother whose father was a retired farmer, expressed feelings of loneliness and isolation when speaking of growing up in the area. She went on to state that:

> **Sarah**: It's more common to leave once you're done school. Most people who graduated are more likely to leave than those who didn't. A lot who didn't graduate, it is because they had kids. Many leave and then come back. I was happy to leave. When I went to college I joined everything I could, canoeing, drum lessons…I felt I got gypped in school (in the Fort Vermilion area) when I learned what other schools had for opportunities.

When asked what the major concerns of youth in the region were she responded with a list including boredom, teenage pregnancies, and drugs, ending with an emphatic statement that she "didn't want to get stuck here".

As stated earlier, part of rural identity is in being un-urban and part of the accepted lore of country life is that it is natural and generally free from urban influence. Yet, as illustrated, urban influence touches the economics and everyday practices of farming. The increasing physical presence of non-farmers is impacting farm practice, alternative employment is both necessary due to low prices paid largely by urban companies, and is itself under immense influence of urban consumer demand, laws and regulation. Furthermore, the very conception of knowledge and the ability of future generations to take over the family farm is impacted by urban processes. In the face of this undeniable contradiction between ideal identity and reality, people within one farming community employ a framework of labels and actions which help negotiate this contradiction in everyday conversation and in the actions of local people.

3.7 The *City*:

During fieldwork I often engaged in conversation with farmers in which they would express such sentiment as:

> "They don't understand us, I mean, you don't understand a village unless you've lived in a village"
>
> "...I feel like we do our own thing, because we are so far away I don't think Edmonton cares what we do."
>
> " I know that people could already have an interest in your (my) land, for drilling, and you wouldn't have a clue, because that's not registered on your (my) title..."

In these abstracts it is clear that when referring to 'Edmonton' or 'they' or 'people' that more than any one place or person is involved. This is confirmed when in the same conversation a person moves from speaking of the government, the local mill and global economics without seemingly changing topic. Outsiders, on these occasions are reduced to one entity. The *city* is a term used occasionally by community members, but taken by me as representing a concept almost continuously employed in every-day interaction. It is a conceptual symbol of past, present and future influences on farming life, a social construct which allows for the conception of people and organisations which have and have had considerable power and influence over the economic, environmental, social and cultural reality of this community. This is not to say that community members do not often and easily speak of individual components of this term, forestry or the provincial government for instance. However, such elements do have a tendency to be fluid in conversation, and when they are referred to at once without particular distinction, they represent something else entirely.

The concept of the *city* which allows for a fluidity of terms for power-holders, is largely unconscious and unnoticed by locals yet part of a local vernacular that allows the negotiation of fundamental contradictions that farmers, and many rural people in general live with. The *city* allows reference to the numerous forces of influence over everyday life, such as the Farm Business Management Council and its mentioned 'stakeholders' as a singular and distant power. A power which locals are able to partake in if they choose, through committees, political action, consultations, thus bringing the concept close to home. Or alternatively, through keeping it at a distance where a bombardment of information and influence is reduced to one source where any local problem can immediately find a cause and where its justified to not understand, or to not want to get involved.

The *city* is an entity of experts, knowledge, and corruption, thus one can say, as I often heard: "I believe I could have input if I wanted, but they'll do what they want anyway", without perceiving a contradiction between right of input and lack of influence. Trust and distrust in a system which provides both incentives and setbacks can be simultaneously expressed. By employing such a concept this particular community is able to negotiate external influences by creating a malleable image which is appropriate for any conversation or situation.

When farmers say that farming is becoming less a way of life and more a business, when the majority of farmers I spoke with do not want their children to farm for a living, this allows them to identify with the rural image of un-urban and not feel completely powerless or apathetic. The *city* is a way of conceiving place within an increasingly fluid and global network of knowledge, money, and power.

3.8 Accepting Change:

As mentioned earlier, change is not a new phenomenon to most rural places and the Fort Vermilion region is no exception. Change is particularly prevalent in Western Canada where more recent historical beginnings have left many with memories of the foundation of communities and their subsequent growth. In the Fort Vermilion area, the relics of a northern trading post are still scattered throughout the town and are reminders of a past not so far away, as is their slogan declared on community signs and brochures: "Where Alberta Began". The Peace River which winds through the settled town and outlying areas was once the only form of transportation to other regions of the province, and until 1975, could only be crossed by ferry or ice bridge. Even today a substantial number of residents are far enough away from the solitary bridge that reliance on the remaining ferry and ice bridge are the only reasonable means of crossing the river to other towns. The land also has changed drastically: in the early 1900's only a scattering of farms were established in the area, but a series of homesteading programs have contributed the area's growth to the degree that, where feasible, the space between towns is almost continuous field. Many residents have told stories of their amazement at the number of farms today in comparison to when they were children or when they had arrived. Sharon is the daughter of a farmer who now works in Fort Vermilion and had this to say on the subject:

> **Sharon**: This area in here (pointing to a map) has all expanded...I remember when I first moved up here as a kid and we used to take this road (pointing to a map) it seemed like it took forever to get to the ferry, there was, absolutely nobody lived out there. And now it's all the way out to the ferry. It doesn't take long cause there are houses, and I can look at the houses and the farms. .. I rarely get out to that area but when I do I am just amazed at the amount of development.

Many express similar sentiment, often including stories of what it is to plough a field behind a horse, then to the added luxury of horse ploughs with seating room, later tractors and subsequent changes until today's 60 foot self propelled variety of machinery. Changes in farming have been steady, in 1913 the world's first artificial fertilizer was developed[8] and since then the technologies of non-human inputs into farming have been steadily evolving, including changes in seed variation and supply. Farming in Alberta's north moved from partial subsistence with minimal access to outside markets to today's market driven reality within two generations. Furthermore, within this broad context of change are the yearly changes, the droughts and bumper crops, changing machinery and breakdowns, the variety of jobs necessary as each season moves to the next. Stability is not the norm in farming life.

In this context, each generation may look upon the last with a certain amount of nostalgia while at the same time recognising that change is part of rural life. Yet this dynamic characteristic of rural life is in conflict with the stereotyped backward and static rustic resident, or, alternatively, the continued existence of rural life is in contrast to the repeated claims of its demise. However, these stereotypes and visions are seldom those held by rural residents themselves but of urban dwellers that use the rural landscape as a backdrop on which social and environmental conflicts are projected. If we see culture as a process rather than as a static entity, or go farther as Hirsch and O'Hanlon (1995) suggest, and see landscape as a process, then it would make sense for residents of a continuously changing community to understand change within that context. Thus,

[8] Marx's Theory of Metabolic Rift: Classical Foundations for Environmental Sociology, John Bellamy Foster, American Journal of Sociology, 105:2 366-405 (1999)

increasing urbanisation can be justified and normalized through a local understanding that nothing stays the same, that change will happen no matter what people do. A culture of change in which only the essential acts of farming, or those perspectives, practices and ways as Williams (1973) refers to them, would remain somewhat constant. As long as they do, community members won't be overly concerned. In this context a farmer who said: "the community is growing too fast; new farmers can't afford to get started and the market is going to drop sometime soon, but we can't do much but watch it happen" can be understood as not being particularly worried about this predicted 'crash' as instability is part of life.

However, this is not to suggest that change does not have its limits; what would occur when those components of 'stable' farm life are challenged? This research community is on the verge of oil, gas and possibly mineral development occurring within the boundaries of what is considered by them as local. When asked to hypothesise on this likely event responses can be put in two categories: 1) so long as they could get a little financial aid and still be able to farm it doesn't bother them or; 2) they would sell out and leave as soon as possible, the land would no longer be the same. Perhaps it is in these situations where the few stable components of rural life are challenged that examples of rural uprises, such as protests against a Mega Dump in New York state (Gaffin 1997) come to be.

3.9 Boundary Maintenance:

Ching and Creed (1997) have proposed that the rural/urban opposition is important in identity making. Affirmation of community seclusion, of both the physical

state of being far away from something and the mental state of distance when in our modern world of quick transportation one can move comparatively quick between spaces, has a constant presence within community dialogue. People discuss the difficult back road to Edmonton and the spring and fall difficulties in traveling it with both a sense of pride and annoyance; they discuss the alternative paved route, its traveling time and who has traveled it recently with the same combination. In these same discussions will often arise other roads in disrepair, new flights servicing the local and not to distant airports, and the difficulty in gaining access to technologies such as high-speed internet or even on occasion clear reception of radio. Such conversations will often lead to a declaration that one of *those* (i.e. urban) people should try driving one of those roads, perhaps in an empty grain truck, and then maybe something will be done about it. People are able to affirm in everyday conversation their position as distant from other places: they discuss crime in cities, the absence of morality in other places and as mentioned previously, they work notions of the *city* into daily topics, confirming the other as distant. Locals tell stories about dealings with a 'dumb' city guy, who had no idea of how to change a tire, or close a gate; they may boast their 'rustic' views on gun laws and hunting regulation. Ching and Creed have suggested that in some cases, boasting of ultra-conservative views for instance, there is a process of displaying apparent backwardness proudly as a defence against the urban, highlighting differences and minimising similarities. In such cases 'rustics' are made conservative by others.

If one can recognise the state of rural as a form of culture, rural space as equivalent to cultural place as Gaffin (1997) argues, understand the country landscape as a cultural process as Hirsch and O'Hanlon (1995) postulate, then we can apply the notion

of boundary maintenance as put forward by Barth (1969). Such an application would be particularly well suited as rural culture changes so rapidly, that one of the few constants is the perception of a boundary between country and city. By ensuring that the boundary remains in public discourse, local residents are reminded daily of what they are not, and by association of what they are. Barth argues that often it is the maintenance of boundaries that are the foundation of cultures, and that subsequently despite previous beliefs that outside interaction or influence would diminish local culture, it is in fact a necessary part of it. The rural could not exist, and rural people could not identify as so, without the presence and influence of urban centres. It is through discussion and belief that the boundary between the urban and rural is affirmed; particularly in the face of diminishing physical difference.

Ardener (1987) has pointed out one of the main paradoxes concerning the idea of boundaries is that from the outside it can be both physically and socially difficult to access the rural. Many places are geographically distant from main centres and have minimal infrastructure such as airports, and once one has arrived it can take a very long time to know and be an accepted part of the community. Yet on the contrary, from the insider or rural perspective, there is a sense of excessive vulnerability, that anyone can come in and make changes, that power is something outsiders hold in excess. He goes on to suggest that the boundary between country and city is a one-way invisible barrier, that there is a sense of its absence from the inside. Here I believe that Ardener's view of barrier may be too limited, for while I agree there is a sense of excessive vulnerability within many rural places, the sense is that people may enter easily, not that locals may leave easily. While there is an out migration from rural to urban, it is not an easy move

for many. The city can be as distant and difficult to get to as the rural is, and for many the cultural differences can be too extreme for comfort. It was reported to me by a community worker that when in need of city appointments many people book them on the outermost edge of the city, avoiding entry into the 'zoo' of people. Likewise, many youth who move to the city often leave after a short time, choosing to move to smaller towns or work in the resource extraction industry in the 'bush'. In this sense, the community's continuous affirmation of the differences between rural and urban serve, in at least a small way, to encourage people to, if not remain in that particular community, not venture into the city for too long.

Statistics Canada defines urban areas as having a minimum population of 1000 and a population density of at least 400 people per square kilometre. Territory outside urban areas is considered rural and taken together, urban and rural areas cover all of Canada. Yet, aside from those working in statistics and municipal governments, for most the distinction is seldom so concise. From the urban point of view, the rural is an image, part of an imaginary world that intrudes upon reality only occasionally through food and other primary resources. These images of what the rural is and should be are projected outwards onto the very social categories they express, defining as much as describing the subject. Among these images, held both by the rural and urban residents, is a core contrast between the two: that they are opposites in nature and practice. Identity as not-city is a chief component of rural culture. Rural place and landscape are dynamic mediums made of experiences through which everyday acts are understood and

expressed. Rural space is indeed cultural place, not merely a void with occasional settlements and resource extraction activities.

With this in mind, rural residents within one particular community have a system through which the apparent contradiction of increasing urban influence and identity as un-urban are negotiated. In everyday interactions community members discuss the boundaries between themselves and others, thus continuing a process through which social constructs are made real; ensuring the distinction between rural and urban remains strong. Woven within this, is the concept of *city* through which urban influences, when they permeate local boundaries, can be understood as singular or plural, near or far, dependable or corrupt depending on social need. Added to this is a temporal scale that allows for an understanding of impermanence to many aspects of rural life, an easier acceptance of change when unavoidable, a foundation that while often resisting change is resilient enough to endure it. Such mechanisms of negotiation are part of the overall form of local knowledge; how information about rural reality is understood and acted upon is influenced by mechanisms that order that reality in a particular way.

Understanding the place of the urban within rural communities is a fundamental component of understanding notions of identity, place and knowledge held by locals. By looking at how such contradictions are lived and understood through daily interaction and dialog, one can avoid the temptation to fall back on the historical contrasts which so often limit understandings of what rural and urban are. Furthermore, such an understanding gives credit to the agency of rural peoples in defining and interpreting their own reality, in a sense, taking back power from urban centres that seem to control so much of rural life.

Chapter 4
Perceptions and Experiences of the Environment

> *In order to farm, you need to plant some cultivator of your crop that has been developed by others over the decades, and even the centuries and millennia. If you're going to try to raise a corn crop this year, you can't start by going down to Mexico and collecting seeds from wild corn in order to develop your own cultivator first, or you probably won't get much of a crop. The same is true for everything a farmer does. In order to get through the day, a farmer needs cultivators of knowledge- lines of knowledge history, stretching through time and social relations- that is, recipes and routines of knowledge worked out through previous experiences, and passed on to someone else for further working out. In other words, a farmer needs cultivars that come, at least in part, from others.* (Bell 2004:132)

In the above quote Bell is speaking of the reality that most of what people know comes from others. This is particularly true with agriculturalists as it is a profession and way of life that is in continuous flux, one that has been developing for thousands of years and has yet to have found the best way to be. The green revolution, higher world food demands, increasing production, and the need for non-human inputs such as chemicals and machinery, have all ensured the continued change of farming practices, and subsequently the need for external information. Perhaps it is because of this surplus of external influence that western farmers are often viewed exclusively as receivers of information, and why the knowledge they hold is ranked so low on an information hierarchy. However, another drive for the continued change in farming practice is found within the farmers themselves and in their ability to take that external information, adapt it to fit their local needs, and make it their own. Bell goes on to state that knowledge and the self produce each other, that cultivars of knowledge are intertwined with the cultivation of knowledge. In short, farmers identify with and define themselves by the knowledge they hold of their surroundings and its application. Though some of this

knowledge may come from external sources, much effort is given to assessing the trustworthiness of the various sources of information a farmer is subject to. Bell suggests it is the social relations tied to knowledge by which trustworthiness is measured. The farmers themselves, and the neighbour next door who have the fields that actually test such knowledge, that ultimately validates it or not. In this sense, though the local knowledge of farmers may be ranked low on an external scale, with farmers themselves it is the most valued, trustworthy and useful source. Yet knowledge is not limited to the fields upon which farmers work, but also to the surrounding environment and the forces that impact it.

The local knowledge of farmers is integrated with past influences, external information, social relations, and the realities of community living in general. Such knowledge is often expressed through story and is experiential in nature. It is through first-hand experience, or accounts of trusted other's experiences, that knowledge is tested, weighed, and conclusions are made. The environment people speak of in this chapter is the one they live within; lifestyle and culture are cultivated along with the land to create a social and physical landscape unique to those who live within it and understand it. It is within this context that local knowledge must be understood.

The following are various accounts of local people concerning different aspects of their environment. The categories listed were created artificially through the interview process and may not have been so divisible otherwise. Nonetheless, the links between various categories and influences make themselves apparent in the way such people speak of their surroundings.

4.1 Weather:

Weather; encompassing wind, temperature, moisture, subsequent immediate effects (such as flooding or drought) and importantly, the *experience* of the above by locals, is an important factor in farming life. I emphasise the term experience, for as Ingold and Kurttila (2000) point out, it is experience that separates weather from climate. Weather sets the boundaries within which certain activities must take place and is directly linked to the well-being of crops, all local flora and fauna, and community activities. Weather is in constant discussion in the Fort Vermilion area and is often being compared with previous years. It is felt continuously and is a very present and real part of daily life. As weather impacts the actual acts of farming greatly, it is through past and ongoing experience that knowledge about local weather patterns and changes in such patterns are often expressed. For instance, Frank and Jane, both born in the area, have very precise memories of seasonal changes due to their need to ship grain using the local ferry.

> **Jodie**: Do you use the ferry fairly often?
>
> **Frank**: I use the ferry lots, because of my access, when I travel it has to be across the ferry so, tomorrow morning I will be driving around again (laugh) (*this is because the ferry has closed unusually early)*
> [...]
> **Jodie**: So is there a general time of year when it stops going and the ice bridge begins?
>
> **Frank**: As a rule I will never book grain out from the second week in November to the middle of December. That's kind of the usual time but having said that it changes every year. So we have had it go till two days before Christmas and this year we have had it go out, it's the last week
>
> **Jane**: You crossed it Wednesday and Thursday morning they pulled it
>
> **Frank**: Yah so that's kind of the early side of it.

[...]
Frank: And then you always get that time in April, usually about the second week of April is about normal till the end is break up. So I try to avoid that time.

Most farmers I spoke with feel the weather has been gradually changing in the area, and that there has been a marked increase in warmer weather and less moisture within the last fifteen to twenty years. Discussion of this change is often integrated with discussions of human-made changes in the area, such as less forest, more open fields, and subsequent effects such as less moisture retention. Thus, local weather patterns are being documented through the experiences of farmers but are also understood through a holistic understanding of their environment, which includes not only such things as global warming but also the acknowledged effects of local farming activities. Sam, a farmer also born in the area relates weather changes to changes in seeding time:

Jodie: So what time of year do you tend to start seeding?

Sam: That has changed a little bit, we used to, our goal in the early years was we would try and start seeding by May 15th with wheat, and our goal was always to be done from June 15th to 20th. And now you just start the first week in May and usually finish the seeding in May, so its moved ahead, I don't know if its something cause the water runs off faster, if it has to do with that or maybe it's a natural weather change. But in the last ten years, maybe more the last 15 years, we have noticed a more early seeding and likewise a little earlier done combining.

Jodie: So when you were children working on the farm was it roughly the same window of activity, farming activity?

Sam: As children we would usually start seeding about the last week in May, so it would have been similar to what we had when we started here and be it in those days there wasn't much land cleared. It tends to be the more trees that are around you the later your fields are ready to seed.

Weather is something that is directly experienced by farmers themselves and that experience is often part of local accounts of farming life. Judy owns a business in Fort

Vermilion but she and her husband had farmed in the area for the thirty-five years previous. They recently quit farming and turned their attentions exclusively toward their business.

> **Jodie**: You have been farming in the area since 67, what kind of changes have you seen as far as farmers here, what they are growing, general attitudes…
>
> **Judy**: Even weather wise it has changed here. As the fields opened up we had a whole change of weather. It was ah, a dryer, you changed from the little strip farm between the trees to, wide open fields. And so definitely the change was there, your trees were taking out the moisture and also we didn't have as much moisture, it became dryer as the years went on. Definitely a difference, and less flies, we used to have more flies years ago and we don't have that.
>
> **Jodie**: Any theories why? Is it because of the lack of water?
>
> **Judy**: Water I think it was water. And then drainage went in, in the years the government has put in a lot of drainage, so people aren't stuck with these big bodies of water and they can farm bigger areas because the drainage is there. Um, Municipal Affairs has equipment that farmers can rent and put drainage on their fields there are certain areas they can only drain into but at least they can't drain into somebody else's property.
> […]
> **Judy**: But when I look at ours (their farm) which was all little narrow strips and we had these tiny little pieces in oats or something and mature, the wind didn't get it, but you didn't get the production that you want and you couldn't go in there with the equipment that you have now a days. Like your equipment is 30 and 40, 50 feet wide. In those years you had your little 12 foot thing you know, so, it's totally different. No, we enjoyed the change.
>
> **Jodie**: You have. So it's been for the better? (speaking of quitting farming)
>
> **Judy**: Oh ya, while we were farming we used to hire people to stay here at the business in the fall, and there were years where the two of us would drive combine side by side. One year we went 21 days side by side. The last days the small combine was just chuckin it, "oh it said, I can not go anymore" (laugh) I was moving so slow and it was so damp the snow was flying, and I had two more rows to go. The tension was so high you know, I had fear of the last break. So I quit and my husband finished off with the bigger combine.

In the above accounts, weather is shown, to be remembered in unison with accounts of farming activity and the personal experiences of people. Within these

farming communities are first and second hand experience-based accounts of changes in weather, in some instances ranging as far back as the early 1900's. Weather is felt and lived by the people, as shown by the many weather-related stories, both told and printed in publications like the *Fort Vermilion People: in our vast trading north 1788-1988.* One of the first stories in the collection is of a mailman named Louis Bourassa who was born in Fort Vermilion in 1886.

> ...his horses had to be shod so their feet could stand up to the punishment of a long haul over ice and crushed snow...Only those who have experienced the long, cold nights and short, gray days of a northern winter in isolation can begin to understand just how welcome the arrival of Louis and his dog team, or horse drawn sleigh, would have been. (Bourassa 1992:4)

It is not only stories from the early 20th century, which tell of the impressions weather made on people. Much of the book is dedicated to the many families who came in the later part of the century seeking out work or affordable homesteading land:

> Marilyn came to the area in the fall of 1970 to teach school in La Crete and transferred to Fort Vermilion in 1971. Her first impressions of the area were molded by the axle-deep, soup-like mud at Paddle Prairie, the ferry crossing at Tompkins landing and the long arduous, slippery road to La Crete. However the first glimpse of sunshine changed that dreary recollection to one of beauty and appreciation for the forested landscape. Clear nights were cherished as the Northern Lights danced in colored hue, a phenomenon that became a reality to those of the deeper south who had only read about it. (Foster 1992:393)

Another, based on reflections of the early 1970's read:

> Many winters the kids and I were out on the farm alone. Some were frightfully cold; -50 to -60 degrees F. at times. The most dreadful winter sound to me was the "tinkle-tinkle" of the stove going out as the diesel fuel in the fuel barrel froze up. I'd go out and light a can of fuel with a rag in it underneath the barrel, thaw it out, go back in to bed, only to hear the "tinkling " noise again in an hour or so.(Quick 1992:423)

Such weather accounts are correlated with history, farming activities, shipping times and cycles of the Peace River, which dominates the landscape. Consistently linked with weather stories; are historical accounts of homesteading experiences, the changing landscape, the opening up of bigger fields, and the increasing numbers of farms; which have created increased winds and a subsequent higher moisture loss through evaporation. This is a similar story to that told in the southern parts of the Prairie Provinces where the effects of massive clearing have been argued about for decades. However, the Fort Vermilion area is experiencing these changes later and is drawing on knowledge gained elsewhere to emphasize the importance of such mechanisms as windbreaks. The effects of changing weather, both locally and globally induced, are locally weighed against other needs such as increased yields gained from larger fields. As well as quantitative information, local knowledge also includes how and why variables are weighed against each other in decision making and how history and identity influence perceptions of land.

4.2 Soil:

Soil is the basis of farming, its inputs and outputs monitored closely by most farmers. Managing soil is a complex task, often involving chemical additions through the use of machinery and staying informed about the latest advancements and their applications in the area. Yet soil is also historical and social, many farmers have transformed forest to field themselves or with their parents, and those experiences influence how they understand their land. George's parents moved to the area when they were children in the early 1900's, he discusses the state of soil in the following extract.

Jodie: They (chemicals) were less necessary before the zero till, but the zero till helps with water loss and soil loss and that sort of thing?[9]

George: Yah erosion, soil erosion, now the fields are bigger, ah, their doing a lot of logging in the area so we are getting way more wind than we did. As a kid a windy day was something different, now wind is a regular thing everyday. So you are having a lot more soil erosion, as a kid I never seen clouds of dust that you couldn't see across the field where now, see if you have a farmer in the area that doesn't do zero till that is still using the old practice, well his soil is just blowing away, you know I'm getting it. From every direction, you know long ago we had either an east or a west wind now the wind is from the south.

Jodie: Is it because of the logging?

George: It's a combination of everything, and its not ah, its not just because its open, but I think your evaporation of water and everything where it is logged and it is quicker like the hot sun hits it and the next thing you know you have a big cloud coming up.

Jodie: And with so many fields drained now, have you noticed a difference in...

George: Like the water table is way down. We used to hunt ducks and geese where I am farming right now. You know, could be water this time of year and I would be sitting there with the hip waders as a kid but right now I am farming it.

Jodie: And you think its cause of the drainage in the area?

George: The drainage, the evaporation is quicker, the snow build up isn't there cause it blows straight through.

Jodie: So are you noticing changes in over all weather patterns...

George: Oh definitely, ah, but we are getting longer summers we are out in the fields in April now and we are not getting snow till November now, so, you know you get a little bit of snow or whatever. I think we are warming up, I'm not sure if its because of change in the area or if its just the whole climate, you know they are talking about global warming and that part of it may be here. You know, the whole environment is changing; we don't get the cold winters we used to have. In the old Fahrenheit scale I can remember sixty below and last winter I don't think we had, you know even, last winter was really warm it was like thirty- Celsius (minus) was our coldest. But then again, your warm weather will get different bugs to come in, they can survive the cold at 45 Celsius will kill bugs and egg larva and all that.

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[9] Zero Till: a practice adopted widely in the area in the mid 1990's which involves minimally, or not at all, disturbing the soil before planting, thus preserving top soil. Many feel this increases pests and adds to the need for chemical inputs.

> Where now that you don't get that you can expect something in the summer in return for that.

In this same interview, George recounted the state of soil in his land and the history that has impacted it:

> **George**: We are working with lots of light soil, in this area, sandy soil, sandy loam and I think we put a lot of the straw and fiber back into it. See a lot of this land was burnt off when my parents came, there wasn't any trees, you could see lights in Fort Vermilion from High Level when they first came here. It was all, the fires went through and the top soil was burnt off and by putting straw back into the land we are giving it more fiber and the land is looser, you know by fertilizing we better our yields. When we were in mixed farming Dad would take all the straw off the fields and use the straw for the cattle so you would take everything off and not put it back in. Where now we put the whole plant back in where before we put only a little stubble back in, so you know the practices are different.
>
> **Jodie**: So do you just spread the stalk over, if you don't till how does it work back in?
>
> **George**: Well your combine chops it all up and it gives you a nice trash cover where it holds the moisture better, it holds the moisture but creates nice incubation beds for bugs (laugh)

Albert and Maggie, have been farming in Rocky Lane for most of their lives. Both were born in the area, Albert's parents having moved to the 'wilderness' from Ukraine in 1928, Maggie's parents around the same time. In the following interview they outline the care and skill needed in understanding soil and how it should be treated.

> **Jodie**: So with this area with the soil, do I understand, some people have told me that in Rocky Lane the soil is less good so there is more cattle ranching, is that true?
>
> **Maggie**: No, the soil is just as good as any in the area.
>
> **Albert**: Some of the areas have more rocks, but if you pick your rocks then you're ok

Maggie: If you go further north of highway 58 then you get closer to the Caribou Hills and then there is more, grey wooded and more rock. But in this area here the soil is just as good as on the Fort Vermilion side or in LaCrete.

Albert: That man that bought our farm, he finds he gets a better yield here than he does in Buffalo Head.

Jodie: So what is grey wooded?

Albert: It's a different color is what they call grey wooded soil, if you have the moisture just right it will produce and if you don't have it just right it won't produce. You know it will bake on you, you work the field up and then it rains and it will turn into concrete, so you have to put legumes in there, put grasses in there and build the soil up, then it will produce. It's a harder soil to manage than sandy loam.

Maggie: It would be like in Manitoba round Winnipeg they've got that Red River gumbo. If you don't know how to farm it you end up with cement as well, you've just got to learn how to farm your soil.

Jodie: So on your land that you used to farm, were there particular fields that were more productive than others?

Albert: Not really, if you had the moisture the gray wooded, cause we did have some gray wooded and some sandy loam, it didn't make any difference. If you worked it right, watched your moisture, seeded the gray wooded as soon as you got on there to get into the moisture, it produced just as good a crop as the sandy loam soil.

The detailed knowledge held by many farmers concerning their farm and its components, as shown in the above abstracts, is the norm within this farming community. Most farmers know the history of their fields; if they did not clear them themselves and know what type of vegetation was there before, then they most often know the practices of the farmer that was there previously. Furthermore, understanding local soil patterns as well as changes in weather and what that means for their particular farm and surrounding farms, is local knowledge that is shared and discussed continuously among fellow farmers. The history of opening up land in the region, of alternative forms of agriculture (such as mixed farming) and alternative practices (such as tilling) impact the land as well

as how the land is perceived and experienced by locals. W. Berry (1984), in a rather romantic but nonetheless informative portrait of farming life, critiques the over-generalized application of farming solutions, which often come in the form of mass-produced products. Farming, he suggests is a complex system of managing variables in which problems vary year to year. The solving of farming problems, he suggests, involves knowledge, skill, intelligence, experience and imagination that is best informed by live tradition. He goes on to state that:

> To the text book writer or researcher, the farm- the place where knowledge is to be applied- is necessarily provisional or theoretical; what he proposes must be found to be *generally* true. For the good farmer, on the other hand, the place where knowledge is applied is minutely particular not *a* farm but *this* farm, *my* farm, the only place exactly like itself in all the world. (Berry 1984:28)

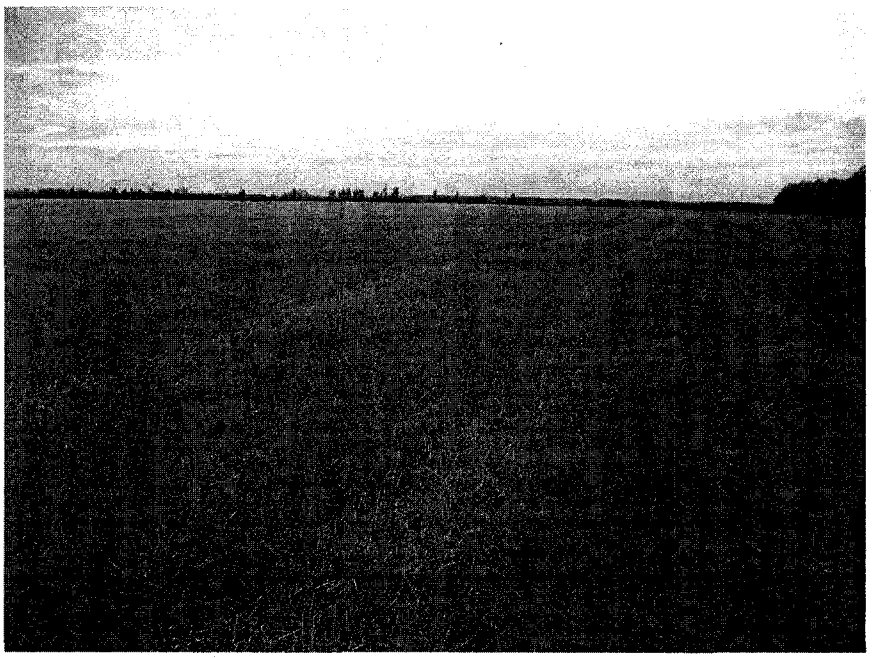

Figure 5: A harvested wheat field near Fort Vermilion

4.3 Wildlife:

In the above quote Berry is suggesting that farmers have particular knowledge about their own land. Yet, in a community where many farmers work secondary jobs in the oil fields or in the lumber industry, as well as trap, hunt and fish, a farmer's knowledge can include much more than the fields on which they work. Many people within the community have a detailed understanding of what animals, fish and birds are in the area, what their migration routes entail and how their numbers fluctuate over the years. Such information often comes from first-hand experience or experience of a trusted neighbour and is integrated with information concerning fields, weather, hunting practices and social realities. For instance, on the second to last day of fieldwork I had the opportunity to attend an annual Fish and Wildlife meeting in LaCrete. Numerous Fish and Wildlife representatives were present and together they informed the other fourteen people present including myself about changes in fish and wildlife regulations, the status of numerous on-going projects (such as Bison Management and the monitoring of Chronic Wasting Disease in deer) and provided information concerning possibilities of new initiatives. This portion of the meeting was informative and rather formal; the meeting was then turned over to the audience for questions or comments. For the next hour different local accounts were given of animal sightings, worries about regulations or certain changes in population sizes of a particular animal and theories offered as to what was causing said changes. For a time conversation revolved around a particularly popular fishing lake in the region and a proposed correlation between sightings of a new bird and a population drop in the smaller fish species in the lake. There were also comments that

White fish were getting bigger than they used to be and theories were offered as to the impact that would have on smaller fish species. Animals such as Elk were also discussed. Elk had naturally migrated into the area within the last ten years and were first noticed by farmers. Community members offered sightings of the animals and information as to the best places for Fish and Wildlife officials to find them, in this case in the stream near a particular bridge around mid-day. Discussion also included local hunting practices, the increasing appearance of hunting lodges and the social impact of such developments on neighbourliness and property access. Speaking with representatives shortly after the meeting, it was confirmed to me that while most meetings usually have closer to twenty five people, the amount of knowledge community members expressed was typical of other meetings held in agricultural areas.

The Fish and Wildlife annual meeting revealed the depth of experiential knowledge held by local farmers, hunters and fishers in the area to an extent that one-on-one interviews failed to access. Within a group setting such as this one, audience members were able to listen to one-another's accounts and be reminded of other sightings or events that had been experienced. After a time, the dynamic of the meeting shifted to one where locals were driving the meeting more than the Fish and Wildlife representatives. Through one-on-one interviews I was also able to access people's thoughts concerning local wildlife, which were typically historical in nature, that is, focusing on change. George's accounts of wildlife in the area are typical of many I heard.

> **George**: I was twenty years old before I actually seen a deer here, now there are deer all over the place you have to watch not to hit them with a vehicle, you know the deer are come back strong. There was no beaver; I was fifteen years old before I first saw a beaver in this country. Now you have trees, not only cause of the trees there is no more trapping cause its not worth anything, you got all your synthetic

furs and all that, so those are the two big things that I really noticed came back. We did lose a lot of animals, we used to have badgers, skunks that are no longer around here you know.

Jodie: Why? Were they just killed out?

George: I'm not exactly sure why, they were here till the rabies, we had a bad rabies infestation in about thirty five and that wiped the skunk, the badger the fox ah, fox came back or are coming back slowly. But skunks and stuff never did come back. So, is it time will bring them back or?

Jodie: What about the geese, were there always, there are so many now…

George: No there was very few geese but a lot of ducks, where now it is the other way around, lot of geese and very few ducks. Like the sky would be black with ducks in the fall here, like when you went out hunting, you didn't aim you just shot and you would be a good hunter, where now, and a goose was something rare you shot a goose when I was a kid well that was something big if you got a goose. Where now you can go through all the geese you want and ducks are, and there again you know a lot of these swamps that we are working under right now that is where the ducks were.

Jodie: So the habitat has changed.

George: Yah but the geese they rest more on lakes and rivers so they have less competition for food you know, the ducks aren't there, their environment stayed so we're ah, getting way more geese.

Jodie: Have they moved somewhere else, are there other areas, where it is more, swampy?

George: The ducks, no I just think we lost our population of ducks.

Many locals I spoke with made similar comments concerning the loss of ducks and the increase of geese in the region. In the fall, during my second stay to the area, geese were a very noticeable component of the landscape. Their migration south is marked by large flocks, resembling solid clouds more than individual birds, hundreds of which would land in farmers fields at once, favouring peas and barley first, the noise from which could often be heard well out of eye sight. I did not go a day during that fall

trip without seeing or hearing geese around me. Geese are also part of social reality for the community during their migration and become a part of everyday activities and local humour. For instance, the major form of hunting in the region is of migrating geese during the late summer and fall months. Hunting lodges scattered throughout the region bring in tourists to hunt the birds but locals also hunt when they can spare the time. Many young boys first experience hunting on their parent's fields shooting geese. It occurred more than once when having coffee in the early morning with a farmer (waiting for the fields to be dry enough to combine) that one or two of their children would enter the home, apparently having been out since sunrise hunting and were now arriving home in time to work on the farm if needed, or alternatively head to school. On one such occasion the farmer's son, brother and cousin had been out hunting while I was having breakfast with the rest of the family. During breakfast the idea arose that the family should suggest to the returning hunters that I was a Fish and Game officer and wanting to see their hunting license (of which they had none). Upon their return the hunters were informed who I (supposedly) was and asked to produce their licenses. The joke went off very well, with much stuttering and shocked faces from the hunters until one commented that my car was too nice to be from Fish and Game. The rest of the family broke into laughter and the joke was up.

Upon completion of breakfast and after much good humoured joking, the father and son headed out to check on equipment for the coming day and the cousin and brother headed off to a neighbouring farmer's house to help in the tearing down of a shed. Later that day (in fact where the shed was being torn down) I spoke with a woman about the hunting season and she recounted an event that had occurred to her that morning while

driving a school bus. A couple boys apparently had left two dead geese in the back of the bus as a joke, but upon seeing what she called 'guilty faces' as the boys tried to leave, she stopped them, ventured to the back of the bus, and discovered the dead geese. The women thought it a good joke and sent the boys on their way, remembering her sons who had done similar things.

The act of hunting geese is very much connected to the land as well as local family values, such as humour. Geese tend to land on specific fields or sandbars in the river at certain times of the day. Most farmers (and their sons) know which areas are most likely to produce geese. Hunting is a pastime allowable when farming activities are unable to take place, and those involved in the farming operations understand the rules which accompany such activities; such as not driving through uncut fields, returning before the fields are dry, and where geese may be found. Quantifiable knowledge, such as the numbers of geese over years, field preference, and migration routes are not only expressed within such stories but locally understood within them as well. Over time, the fields upon which such events emanate come to represent a storied social space. Such an undeniable presence and yearly symbol of seasonal change means that when change does occur it is not only noticed, but is *experienced* by people. One farmer once commented to me that he does not stress about getting the last of his crops in until the geese start to thin out; the migration of birds is part of the community rhythm; it is at once social and environmental.

In a later interview with one Fish and Wildlife representative the importance of the information farmer's hold concerning their land was given as such:

> **Representative**: I use the input from farmers and ranchers as well as what I gather myself, but a lot of the information about populations and you know where animals are hanging out and everything, I mean that information comes from the agricultural community to us, and it comes that way by, cause a lot of farmers are trappers, they get licenses or registered trap line with conjunction of their farm or because, this country people are tied pretty close to the land right, so ah, you hear like they just come in they will tell you if they seen this. You monitor and look at different animals that you are trapping on trap lines cause you have to provide an affidavit of what you are trapping. So they are very aware of issues in the area, I mean when Elk first came into the area it was the agricultural community that let us know, it wasn't us seeing those Elk, it was them seeing those Elk. And uh, it's the same with cougar ... but yah, they are very aware of what is on their land...

This same official stated that when the government moved the capacity to sell hunting and fishing licenses from the Alberta Renewable Resources Office to general dealers such as gas stations and convenience stores, that Fish and Wildlife lost as much as seventy to eighty percent in dialog and information dispersal with community members. When people came in to buy their licenses they would share sightings, concerns and witnessed illegal activities with officials and likewise when the office wanted to disperse information they were able to pass it on within the office and then have it carried throughout the community through word-of-mouth. In this sense wildlife issues were integrated with social issues and local communication systems.

4.4 History and Society:

M.E. Gertler (1992) stated that in discussing the propensity for agriculturalist to adopt resource-conserving practices, the personal philosophies, characteristics of local resources, community economics and the culture of the agricultural community must be understood as important factors. While Gertler's article referred specifically to the adoption of alternative agricultural practices, he does emphasize the complex interdependencies of many elements of rural life. Attachment to place, understanding

local ecological systems, history and economics can not be easily separated without increasing the risk of misunderstandings and contention. For instance, social and historic knowledge are very much integrated with environmental knowledge within the Fort Vermilion region. History and social organization provide the structure through which current reality, including the environment, is interpreted. Susan, an organic farmer with a particular fondness for local history was speaking at a town meeting, held to discuss the possibility of a Caribou Mountains Wildlife Reserve[10] and her feelings for natural heritage when she stated the following:

> **Susan**:...and so what happened was that some of us were familiar with this area and the area just North of us called Butter town, but when we had the meeting and advertised it we had people from Alesky and Boyer river, we had people from High Level people from Paddle Prairie and LaCrete all came to this meeting, there was about one hundred people at this meeting, well that is a pretty significant number for this community for a meeting. And what we found was is that the people from Alesky identified with this area, the people from Paddle identified with this area and people from Fort Vermilion, this area and actually LaCrete had a sand dune area on its side of the river. And then through all this we've got Boyer's post, the sites of Boyer's Post, Mansfield House, ah, Fort Yard, Aspen House, La Fleur's Post, the area is just absolutely chocker blocked full of fur trade history on this river, and then on top of that we have the natural heritage, we found out that we've got Peregrine Falcons, there's Lynx, there's Wolverine, it is a fairly pristine area that has offered sanctuary to significant wildlife and who knows you know that bison bone[11], what is coming out of that? What does the area have to tell us and what , what are we going to be compromising if we don't pay attention to it before we go in and start driving roads through it and tearing things out of it you know. So it is a special area and the reason it has existed the way it has this long is because it hasn't been prime agricultural land, and here I am as a farmer telling you this. I mean, indeed there is lots of land up here that probably shouldn't have been developed, it's not the best for agriculture. But there is a striving to make a living that way and that seems to have been this area, is sort of a last frontier in some ways. You could get land, it wasn't as good quality, farther from the markets, but therefore the land was cheaper.

[10] A wildlife reserve established in the late 1990's, north east of the community, expanded partly through the Alberta Special Places 2000 initiative.

[11] Speaking of a bone found near Fort Vermilion and now being tested by researchers for dates.

This was not the only reference to the area's 'frontier' mentality I came across. Whether mentioned as a source of pride, in that the region was conquered, by hard working men and women, or as a source of discomfort, in that such a mentality was stripping away the regions original beauty, the idea of the frontier was common and often reinforced by the recent homesteading history of many locals. In *Fort Vermilion People: in our vast trading north 1788-1988,* is found the following poem by a local woman named Elizabeth Ward Rivard. Many locals expressed similar sentiments regarding those who originally came into the area and the things they achieved.

The Song of Our Pioneers

They heard afar the clarion call
And answered one by one,
And ever the unknown called them
And ever it lured them on.

Onward, and ever onward,
Eagerly unafraid,
Not counting the cost of their daring,
Not counting the price they paid.

Dangers that ever threatened,
Hardships that plagued them sore,
Spanning the wilderness barriers,
Hurling aside her door.

Hands that were never idle,
Courage that never failed,
Men with a steadfast purpose
Blazing the frontier trails.

Giving to each his measure,
Judged by his word and deed,
Seeking no gift or favor,
This was the frontier creed.

Toiling with patient oxen,
Turning the virgin sod,
Staking their faith in the new land,
Staunch in their faith in God.

We sing of their deeds of valor,
These men of our last frontier,
And this is a tale of our heroes,
The song of our pioneers.

The recent homesteading history of this area is an important component of how the environment and the people's place within it is understood by locals. Within memory, people opened up land, pushed back the 'bush' and created the landscape as it is now. Many, express a sense of pride, when discussing the challenges overcome and things accomplished through and since that time. The above book is filled with pages of life-stories beginning with the opening up of homestead lands, the creating of a home, a family, and a community.

> (time period 1965)...My first impression of the place was, "I must be crazy to leave everything and come to nothing but bush." I was going to be living like my grandmother had lived. Times were very hard that first summer. We lived in a small log house, mud on the outside and inside, no power (it was put through in August), no water or plumbing, no phones or gravel roads. We were also dried out that first summer. By the time we got the grain harvested and sold, we cleared $700.00." (Bond 1992:425)

> We came to Fort Vermilion in August 1964. Why did we come? " Challenge – this could be an interesting place – other people live here, why not us?" Getting a homestead was to be a new adventure. Our family was young, the oldest (Gordon) was 14 years and Corlia Roseann, the youngest, 13 months. Relatives had told us there would be many place to rent. But – would you believe it? – there was not even a shack to be had! So we bunked down in an empty granary that Al Rosenburg had." (Foster 1992:394)

In Fort vermilion the idea of conquering a frontier is not relegated solely to a distant past. The influx of farmers seeking affordable farming land in the 1970's and the subsequent struggle against the 'bush' as it was pushed back to be replaced with farms and homes is part of recent memory. While the language used has changed, many farmers still talk about the continued need of opening up the green zone (forest) to encourage more agriculture. The memory of homesteading combined with previous centuries of

exploration, fur trading, and farming has not only created a particular landscape, it has also created the social and cultural scape of those living there. In an un-taped interview with a member of one of the founding families of the region this sentiment was expressed:

(Reconstructed from interview notes)

> People have great pride in the area and their role in Alberta's development, it took a lot to create this area and those people achieved great things. Canada was created through agriculture and that's not getting enough respect now-a-days, when it is all about money. There is a group of people here who are here because they love it and because it holds a place in their heart. Kids aren't learning enough about their own history in school, they learn about history far away but they don't know about where they came from and what their families did to live here. The economic impact of Alberta loosing farms will be minimal, but culturally it will be huge.

It is possible to think of knowledge as an entity detached from the everyday actions of life. It may be informed by those actions, even dependant upon them, but can be understood as fundamentally extractable and satisfyingly testable. Knowledge as an identifiable unit or thing can be found within the farming community of Fort Vermilion. Within the time-tested experiences of farming, lies a vast pool of information concerning the divisible components of the natural world. Information about soil, plants, animals, and weather are being constantly gathered and discussed, external technology and information is being tested and variations are being made to better fit that information to local reality. It is possible, perhaps even useful, to extract the quantitative information held by those living within, and dependant upon, a particular environment; but it would not be a full account of the form and importance of their local knowledge.

More than individual extractable categories, one can view local knowledge as consisting primarily of a system of weights and measures, actions and decisions, which

are informed by those categories of which history, economy, society, and environment are incorporated. People compile influence into manageable cognitive categories and it is these categories which betray the form of local knowledge. The links *between* environment and history etc... is such that they influence how people interpret their reality and subsequently create reality itself. For instance, wind in Fort Vermilion is at once natural and man-made. Its presence influences farming practice, and farming practice influences wind. Social relations are influenced as outsiders who 'don't care about their land' are blamed for cutting down windbreaks, and history comes forward as people remember different times or solutions. Wind blows away the crops people depend upon and children on tractors with dirt stinging their eyes decide it is not a life they will choose. It is these links and how they are simultaneously interpreted and dealt with, how ever-apparent contradictions are negotiated, in which the form of local knowledge is found. This is why it is important to give voice to local forms of expression and understanding. Returning to my chosen definition of local knowledge as:

> ...any understanding rooted in local culture. It includes all knowledge held more or less collectively by a population that informs interpretation of things. It varies between societies. It comes from a range of sources, it is a dynamic mix of past tradition and present innovation with a view to the future. (Silltoe and Bicker 2004:2)

The idea of knowledge as generally and collectively held, is a common thread in many definitions of local knowledge. For, if knowledge is exclusive to the individual, it can say little about society, culture, and ones environment. In the above abstracts are found examples of common beliefs and common ideas concerning the region. For instance; the weather has been warming for the last fifteen to twenty years; there are more deer now and fewer bear; the ratio of ducks and geese have reversed; outside hunters coming in to

the area tend not to respect the land and waste their birds; fields are opening up due to a need for higher yields and there are subsequent environmental implications. These are just a few separate notions generally agreed upon by the people I spoke with, yet the collectivistic community aspect of knowledge is not necessarily, these separate threads but what holds these threads together. In the Fort Vermilion area it is the presence of change, the frontier drive of development and a fatigued etiquette of 'hard work will fix everything', through which the environment, history, and economy is collectively interpreted. Troughton (1992) in a description of the state of agriculture wrote that

> Agriculture production is now concentrated on a minority of farms, increasingly integrated within an industrialized agri-business and government. The remaining majority of farms are economically marginalized within an agrarian system in which decoupling of agriculture from rural society and environment is well-advanced. (Troughton 1992:29)

Troughton gives an accurate account of the state of agriculture in Canada, increasing farm size and the increasing influence of agri-business, government, and consumer preference are "...destroying both the distinct structure of production and agricultural rural function" (1992:29). The distinction that needs to be made however is between *farming* and the *farmer*. While the role of agriculture in Fort Vermilion is changing, the men and women who partake in it are not yet decoupled from the rural society and environment in which they live. Agricultural and rural changes, while causing much distress to many, have been adapted to and absorbed by those still farming in the area, and rather than reducing the presence of local knowledge, have merely changed its form.

Chapter 5

Development in the Fort Vermilion Area

Canada's rural countryside is becoming increasingly tied to large scale, market driven resource development. Industrial agriculture, mineral extraction, forestry activities and oil and gas extraction are expanding into all corners of the country. In short, for many, resource development is part of rural reality. As discussed in previous chapters, in the Fort Vermilion area the practice of agriculture is not easily divisible from other environmental, social and economic influences and it is in this context in which farmers form understandings of their surroundings. Development is part of farming reality and farmers are often very knowledgeable about industry practices and their social and environmental impacts. Perhaps more importantly, to rural people, industry represents urban influence, power relations and often is associated with very specific forms of knowledge. The ways in which farmers and rural residents in general view industry determines the position they see themselves in. That is, whether or not they have an interest or a right to input. Before one can advocate for rural voice and for the inclusion of local knowledge in the resource or development process, it must first be determined how locals view themselves, their rights, perceptions of their own knowledge and ultimately whether or not they feel they have the right to, or the desire of, meaningful input. The implicit assumptions here are, (1) local knowledge of farmers is largely without recognition and, (2) meaningful rural input is lacking in development projects. The first of these assumptions has been addressed throughout this paper, the second is taken directly from the input of locals as is shown throughout this chapter.

5.1 The State of Development in Northern Alberta:

Within Alberta, the term development is often synonymous with change for the better, movement forward and opportunity. With it comes an avalanche of studies using terms like social impact assessment, community needs, consultation, community viability, sustainability and vibrancy. There are local development boards, regional development boards, conferences and government policy, all aimed at addressing, promoting or directing development. In short, it is far from overlooked. Natural resource development is at the forefront of the Alberta agenda; like much of Canada, natural resources drive the provincial economy. Within the Fort Vermilion area, natural resource development has both an economic or social presence and a very physical one. Oil and gas, agriculture and forestry have moulded the physical landscape to what it is. The general public opinion as presented by media and tourism is that the area is thriving and in full support of such development. In a handout to tourists and visiting business representatives concerning MD 23, is a publication entitled *Mackenzie* with the subtitles *Realizing Immense Potential* and *Built on a Rich Heritage*. In bold on the first inside page is the following:

> Home to both the oldest and youngest communities in the province, the vast Mackenzie region is a resource-rich land of opportunity already seeing tremendous growth and development, and on the threshold of an even more prosperous and progressive era. (2004:3)

Representing apparent public opinion are publications such as the special supplement to the Echo and the Northern Pioneer, the two local newspapers, entitled *Salute to the Oil and Gas Industry*. The publication is an eight-page paper of local business advertisements and stories dotted with sayings such as "proud to be serving the petroleum

industry", "proud to salute the men and women of the oil and gas industry" and " we thank the oil and gas industry for planting a firm cornerstone of this region's economy".

With much of this development comes the encouragement of partnerships, consultation and dialogue with community members along with studies concerning the potential for, existence of and maintenance of development. In 2006 the Northern Alberta Development Council held a conference in the town of High Level titled *Today's Promise, Tomorrow's Reality*. The council's mandate is to:

> investigate, monitor, evaluate, plan and promote practical measures to foster and advance general development in Northern Alberta, and to advise the Government thereon, and without limiting the generality of the foregoing, the council may investigate the requirements of the people resident in Northern Alberta and make recommendations thereon in respect of
>
> (a) social and economic development,
> (b) development of communities and service delivery, and
> (c) development of government services and programs." (2006:3)

The conference revolved around development, community input and measures to influence and direct future change in Northern Alberta in such a way that communities and residents benefit into the future. Speakers focused on the importance of community innovation, taking control of their future, consultation, and collaboration. Kelley Moore, in a presentation concerning how to engage people and ensure vibrant communities stated that:

> People want to be engaged, particularly in matters in which they have large emotional stakes, or decisions that are visible or have large financial consequences. Citizens correctly assume that they know something about planning without having studied the subject. (Moore 2006:25).

The encouragement of community involvement is not new to the area. In 1988, the Fort Vermilion and Fort Chipewyan Bicentennial Conference was held in Edmonton. The format of the conference included papers presented by local residents, government and private business representatives as well as members of the academic community. Topics covered were diverse and included historical research, evolving roles of government, economic development and community life. The focus of the conference was directed at the idea of community involvement in all aspects of research and development, including information gathering, implementation and decision-making. In his closing remarks at the conference, R.G. Ironside commented that locals "...are the interpreters of their communities' lives and histories, suffer from problems and search for solutions. If "outsiders" are to help them with their problems, it is with them that dialogues need to be initiated." (Ironside 1998:314). Another paper present was *The Changing Roles of Government: Community Cooperation in Development* by Eugene Dextrase, the chairman of the High Level Board of Community Futures at the time. Dextrase comments on what he sees as the over-reliance on government bodies to solve local issues and petitions community members to take initiative in insuring they have a voice in future community developments.

With such economic growth in the area, opportunities to expand what already exists or to create new industries are commonly looked for. One report, commissioned by the Northern Alberta Development Council, concerning the area's potential for development is titled *The Potential for Northern Participation in the Exploration and Development of Non-Energy Mineral Mines in Northern Alberta* (2001). During preliminary fieldwork it was mentioned by two community members that specialists in

diamond exploration had been visiting the region but that they understood nothing had come of their visit. While it is unclear whether these specialists are connected to the above report, the study does confirm that the impending development of viable diamond mines is a strong reality for the region. The report, which reviewed the potential of impacts, exploration and the development of the industry itself, concluded that such developments would be economically beneficial for the region and would provide education for, and subsequent preferential hiring of, locals. While providing few details, the report states that researchers conducted consultation meetings in various communities. Without naming which, it also states that northern Alberta groups generally support the idea of diamond mine development and believe that any environmental concern would be outweighed by economic benefits.

Agricultural development is also a priority in the region and there is an abundance of research and literature available concerning it. Competitiveness, economy and growth are the backdrop for most research as is made apparent in a report compiled by Serecon Management Consulting for the Alberta Agricultural Research Institute entitled *Needs and Priorities for Agricultural Research and Technology Development in Northern Alberta* (1996). The report focuses on the Peace River region and recommends, among others, the following as research priorities:

1. research aimed at reducing cost of production while improving competitiveness
2. enhancing research, systems and infrastructure necessary to promote expanding and emerging markets
3. researching value added opportunities
4. improving research stations

It also suggested improving communication with recommendations such as establishing a magazine column to keep farmers up to date and a database for the use of researchers, producers and processors. In response to research such as this, Cornelia Flora (1997) at a National Small Farm Conference in the United States presented a paper concerning the importance of farmer-initiated research. Flora outlined the history of agricultural research in the USA, which in many ways is similar to Canada's. The settling of lands through various forms of land grants and the later establishment of research and extension resources, established a research agenda in which the craft of farming became transformed into a science. She suggests that such an approach is no longer applicable to today's more varied agricultural practices and markets and that farmers need to be active participants in the research process.

Other potential initiatives often spoken of in the research communities included the potential for bio-fuels development, the paving of highway 88, increasing tourism into the region through attraction to natural and historic heritage, increasing hunting lodges, the development of gravel pits and expanding oil and gas activity into the Fort Vermilion area. While all of these potential developments are often spoken of, there is little research at the moment to determine the state of such projects. Numerous residents report seismic studies on their land or a neighbour's, and many believe oil has been discovered in the area and will be developed within the foreseeable future.

All this is meant to highlight the presence of research, development and change in the Fort Vermilion area over the last twenty years. The growth of MD 23 is a priority and concern for many researchers, industries and government officials and with this growth is coupled some recognition of the need for local consultation or at the very least, a

recognition that the voting public must be attended to in some way. The character of the Fort Vermilion area is very much defined by development of natural resources. People depend upon the environment as a way of life and the perception of impending change through increased resource development can not be over-exaggerated. While only LaCrete is physically growing as a response, all communities I visited had the expectation of increasing change, though not necessarily coupled with an expectation of community growth. Ardener (1987) perhaps best describes this feeling when discussing the paradox of remote areas.

> Remote areas are full of innovators. Anyone in a remote area feels free to innovate. There is always a new pier being planned, and always some novelty marking or marring the scene....The next boom is always on the way: kelp, sheep, deer, sheep again, oil, fishmeal. There is always a new quarry for new road materials. We are always seeing the end of some old order. Meanwhile, beyond the new pier is the old pier, and beyond the old pier an even older pier....Remote areas are full of ruins of the past. The corollary of the above is that the remains of failed innovations, and of dead economic periods, scatter the landscape. There is another paradox here: that remote areas cry out for development, but they are the continuous victims of visions of development. (Ardener 1987:46)

In this atmosphere, how locals perceive developers, how they feel about attempts to gain community input and what they judge their own interests and rights to be, can be very telling. Such local opinions influence perceptions of what local knowledge is, what its value is and furthermore, as an aspect of local knowledge itself, what the links are between development and other community-relevant topics.

5.2 Local Perceptions of Development:

Due to the need of most agriculturalists in this area to take on seasonal employment as well as their participation in local boards, many have an intricate understanding of development activities and consequent community impacts. Development is part of how the environment is locally conceived. While many wish for their surrounding areas to remain protected for future generations, the desire for environmental protection is generally understood under a broader need for resource extraction activities. On occasion, the public has been invited to share their opinions and concerns with different development representatives. For instance, the two large mills in the area have had a Public Advisory Committee since 1997 in which different representatives and community members meet to discuss forestry activity. The National Energy Board and Joint Review Panel have held meetings in the last few years regarding the potential impact of the Mackenzie Valley Pipeline. The Mackenzie Applied Research Association, representing agricultural development, is overseen by a board of community members. Furthermore, Fish and Wildlife holds annual community meetings and the Municipal Planning Commission, dealing largely with commercial and residential developments, consists of community members that meet as needed.

Locally, development is understood as having economic, environmental and social components. For instance, forestry is an important industry in the area. There are two large mills based in High Level and numerous small mills in and around LaCrete. Many farmers and non-farmers work in the forest industry either full or part-time during the winter months. Being based near LaCrete, smaller mills tend to be labelled as

Mennonite and the oil industry as non-Mennonite. While during research I met numerous non-Mennonite forestry workers, I encountered no Mennonite oil workers. Farming families who have more than one member working in resource extraction industries tended to remain within the same profession. Generally fathers and sons work in one of the industries unless there is another family employment available such as a small business, or the farm is self-subsistent. Due to this arrangement no women I spoke to had any experience in either industry and most men I spoke to had knowledge of only one. Often this resulted in general positive attitudes towards the industry of employment and more negative attitudes towards the other. However, of all community members I interviewed only one had dominantly negative attitudes overall. Both industries are understood as economically imperative to the area, as supporting the existence of farmers and non-farmers alike and as supporting families through providing work for children who choose to remain in the area. However, there are contradictions apparent in many of the interviews. The following is an abstract from George, a farmer in the area who has worked many winters in the oil industry. When asked about the forest industry he first declared that he supported it fully but then went on to add the following:

> **George**: Its just something that we accept. My biggest issue with logging in the area is the way they log, and the way they, you know, LaCrete Sawmills get their wood allocated somewhere near Stean river, High Level sawmills they're out by Wabasca or south. In the winter time we have two hundred logging trucks passing each other on the highway here. You know, meeting the trucks, it just totally doesn't make sense to me. You know they are talking about emissions from fuel and everything, so they are hauling logs two hundred miles one way, these guys are hauling logs two hundred miles the other way, where they could be hauling twenty miles and twenty miles. But the way forestry has everything set up, they allot the local log allocation, and it's good for the truckers cause they are making a lot of money but it doesn't make sense economically...

Jodie: Do people have any input on the allocation?

George: They say they do, like they have a public advisory board that I belong to actually with the mills, but I am getting the feeling the only reason they have a public advisory board is that twenty years from now their gonna be able to say "well, it wasn't just our idea, the public had input on it". But our input, it doesn't matter what we say, they have an answer for everything and uh, I have never seen anything where we suggested, that they actually used. It's to make us feel good, they give us a supper and say "you can bring your concerns to us, but we have our programs set out already".

Many residents are familiar with the logging allocation system which determines which mills are able to log, where and what species of tree. Often those who have worked in the industry are familiar with logging practices as well as with the impacts such industry has on the community. This is a conversation with Sam, a Mennonite farmer who has, in the past, worked for the logging industry during winter.

Jodie: Is the forestry a big thing as far as the expansion of this area?

Sam: This area (LaCrete), the forestry industry, for off farm income probably accounts for 80-90%, so its huge, without the forestry industry this area wouldn't be what it is now. Cause it's absolutely based on that, there is no oil and gas right now, here, and I like that.

Our conversation then turned towards the oil and gas industry to which he is not well inclined. However, it soon turned back to forestry when I enquired into the impact of the oil industry on young people.

Jodie: Have you noticed at all a pull of young people towards the oil fields?

Sam: Not around here, not really. It's very little bit, there's some, so the last couple years there are some gone into the oil fields west of High Level, just for winter. But it's, I would say less than 5%.

Jodie: Ok, so it hasn't become a major issue for drop outs?

Sam: No. Logging does impact that. Where they are enticed into the logging industry, in order to keep their people they are paying good. That's been a problem

> for keeping kids in school, when they can see grossing five thousand dollars a winter versus going to school, it becomes a big pulling factor in a hurry. Some of those kids probably would never finish the school system anyways, but some of them that are debating, it just pulls them. We personally wouldn't allow that for our kids, there's no options. We use the 25/12 rule. They have to be 25 years old or have finished grade twelve before they can quit, which ever comes first (laugh).

Shortly after this I enquired into any particular positive or negative aspects of the forestry industry:

> **Sam**: What is really gone well with forestry is the way they have been able to integrate small local mills into their FMAs[12], that's been a very positive, so the small local mills are able to draw on their resources, to utilize some of that wood, that's a big problem for small mills they always have to do battles to access wood, so with their bigger companies with their FMAs allow the small guys to have a part of it, cause the small mills are a backbone to the area. ...I guess there is one practice I would be concerned is the integrated wood, two different companies hold the FMA and one company is obligated to, if you have a spruce FMA and they are not obligated to do those Aspen to the other mill, sometimes they will just knock them down and leave them there. And in this day and age it shouldn't be necessary, when you cut an area it should be that absolutely everything is utilized. You still see some of that around here.

Lastly I enquired into the Public Advisory Committee and whether or not he is familiar or has been a part of it.

> **Sam**: I don't know, its just second hand information that their input isn't being utilized, I gather the advisors really advise against some things but it just carries on, its been a lost cause. I have had the opportunity (to join) but I have rejected it for, if they don't use what you're advising them then why bother?

The above conversation moved between the oil and gas, and the forest industry and moved between environmental, social and economic impacts effortlessly. All were understood to be connected and important. It is common for men who had worked in the industry to be familiar with logging practices, where logging was occurring, which mill had an allocation and where, what the impact has been on the community and young

[12] Forestry Management Area

people, what community concerns were (such as logging truck speed and increased dust) as well as being aware of the Public Advisory Board. Added to this were concerns regarding the practice of forestry clearing agricultural land before it is auctioned and the impact such logging has on clearing the land for fields. While there is not necessarily consensus concerning general attitudes towards the forest industry, there is very firm consensus concerning the connection between the industry, environment and society. The forest industry being established well within community boundaries, the existence of the Public Advisory Board, the existence of small locally controlled mills and the physical presence of forestry officials living within communities and forestry equipment on highways, ensure that the forestry industry is felt as having a tangible presence by community members. In contrast, the oil industry, while contributing economically to the Municipal District and providing seasonal employment for many community members in the Fort Vermilion region, does not claim such a presence. The oil industry in this area is primarily concentrated to what locals refer to as the triangle: a geographic reference to the three-sided space between the towns of Zama, Rainbow Lake and High Level (See Figure 6).

Oil activity is currently limited largely to areas west of High Level. The communities of Zama and Rainbow Lake were described to me as being more like well established oil camps with some amenities than towns; unless one is working, there is little reason to visit. High Level on the other hand only shows its involvement in the triangle by the presence of numerous hotels and company offices. Due to the physical remoteness of the patch, and the relatively recent establishment of oil activity, the oil and gas industry is one still perceived as outside of, and separate from, the community.

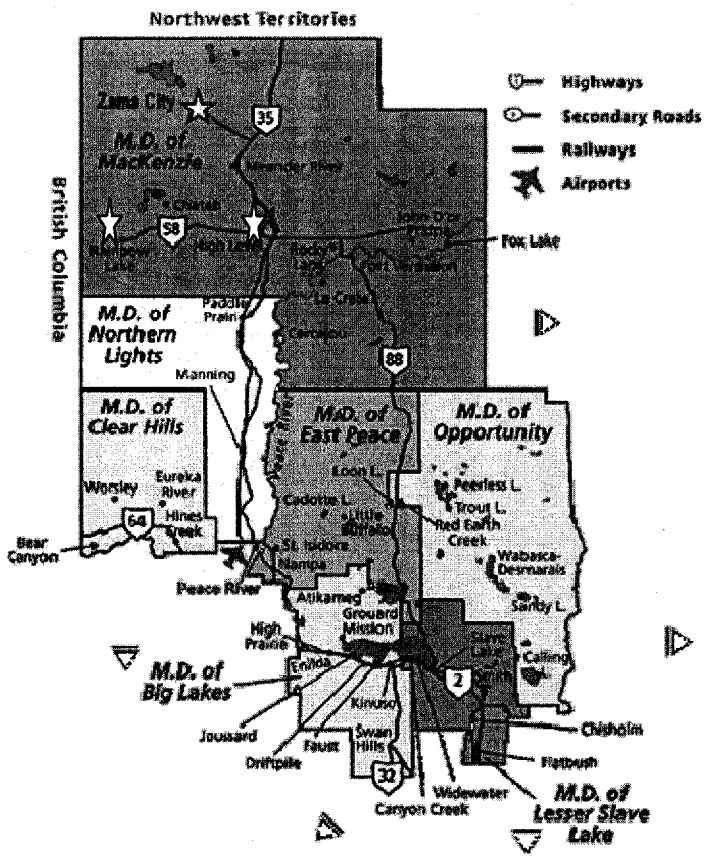

Figure 6: The triangle, as indicated by three stars in the top left corner
Source: www.zamacity.ca
Accessed July, 2007

However, accounts of recent seismic activities, the presence of capped gas wells and rumour, indicate that it is only time before the industry finds its way towards the hamlets of Fort Vermilion, Rocky Lane and LaCrete. The following is a conversation with Judy, a retired farmer who along with her husband, had moved up into the area when oil and gas activity was just being established. I asked if the industry was impacting Fort Vermilion.

> **Judy**: For the job opportunities, before that it was only the south the oil company themselves brought their whole crew in, they hired in the south. There was the odd people that got a few jobs on it, uh, very minor. But that is how it would work. It was always the whole crew was moved in here, you know they lived in camps then moved out, and most of it was in High Level right, and in this area here, when we

came they were doing a lot of seismic tests, they were, like we have several tests on our fields that are capped, they are all gas.

Jodie: Do you think that will be developed sometime?

Judy: It's the fifth largest, apparently, so I'm told, and yah, eventually it will be used, there is a reason for it. And when the pipelines come through, I don't know when they need the gas but they're all capped, we had a farmer out here four years ago, he is right alongside the river and he dug a well, an outfit come in and dug a well. When he sent the samples in, it had a lot of gas. Just slickity slick these guys that read all this stuff in Grand Prairie discovered that there was a lot of gas, and within a day or so we had a big set up here and it took two days and it was all down. They hauled out all their slump away on fields, and two days it was all back down but capped. They will tell you what they found but its not, it's like because we happen to be there as the development was there and that sort of thing. They gave a few indications of what it is and other than that it gets capped and they go....It won't harm anybody. It will be a plus as far as people getting interested in petroleum, marketing and so forth. I think, you know if it is right here they would do it, if it is somewhere else it takes longer for them to be interested in it, find the benefits of it. You know work and so forth, sure they would bring hoes, camps and so forth.

Most farmers express a belief that the industry will eventually expand into the Fort Vermilion area and most feel favourably about economic impacts although many have environmental or social concerns. Turning back to Sam, he had this to say about the oil industry:

Jodie: So you haven't had any seismic crews or any guys testing your land?

Sam: There has been some seismic crews around here, there is some resources below us and we know that, but uh, I guess they face a big cost to initially get the commodity out of it to so its got to be quite viable. Where we farm here there is about, 50 miles south of here you start running into gas wells. So it's starting to come in but, right now it's good. And I guess the area (LaCrete) we don't encourage it at all neither, some area you will find they encourage it, but we discourage it. It brings other problems to the area too.

Jodie: What type of problems?

Sam: Probably mostly social problems. It's a different economy, there are lots of social problems tied to the oil industry.

Jodie: So if oil was under your land and you had a company that wanted to explore it, you can't necessarily do very much about stopping them but how would you feel about that, are there parts of your land you really wouldn't want activity to occur on versus other parts, what would your main concerns be?

Sam: I guess the main concern was, once it was in the area then I wouldn't be very concerned but to have it initially start up I have a huge concern, we have had, and I have participated, when there is initial exploration going on we tried to be as stubborn as we can. Just so they will stay away from us, and companies sense that and it helps, stay out of LaCrete.

Jodie: Are there impacts on your land you have heard about that would be problematic?

Sam: Oh yes, down south we hear about , what they are doing down south now with ethanol and it really attacks the ground water, that kind of stuff. But, I don't know what I would do if this area, there are impacts. Also what it does is increase the land value so that the, it's a little harder for young guys to start up and we have always been big people for trying to keep the young guys on the farms, and its kind of a negative for young guys wanting land.

As stated in the previous chapter, much of local knowledge is expressed as a general rounded understanding of different aspects of social and physical environments as well as the links between them. Given this, it is no surprise that concerns raised about the oil industry are both physical and social. People spoke to me about damage to water, sulphur rings around mud puddles (apparently due to pollution of the industry), (under)utilization of logs cut for seismic activity, beneficial economic opportunities, the potential paving of highway 88, increased school drop-out rates, a decrease in community vitality, and the need for new economic opportunities for growth in the region. Such a range of topics invariably arose when the oil and gas industry was discussed; often contradictory, expressing both support and unease, and often inseparable from other community issues. In an atmosphere of normalized change, many farmers and non-farmers alike express at once both a confidence that the community and environment will survive "like it always has" while also expressing a vague concern and general distrust of

large industry. Most feel they could have input if they wanted it while at the same time claim they have nothing to offer or that industry and government will do as they wish no matter what locals say.

While most community members I spoke with supported development in general, understanding it as integral to community survival, discussion revealed that underlying tensions can be quite serious in nature. For instance, being so recently settled, particularly through a homesteading system, has immense import to how land and farming is viewed. Many residents who came into the area under a homesteading lease cleared their land themselves and were able to sell the trees and use the money to aid in establishing their farm. However, more recently due to changes in regulation, rather than a draw system, newly opened land is auctioned off to the higher bidder, the land having already been cleared by forestry and the money from the trees allotted to the forestry company. Yet the work involved in clearing land and the importance of receiving land as a young person remains fresh in people's minds. The following is an extract from a conversation with Sam and his wife Jane, were both born in LaCrete. Her father moved here when he was two, his parents as young adults.

Sam: I'm very opposed to what they are doing right now.

Jodie: You are.

Sam: Yep. Cause when, for a while there young farmers were able to buy some bush land from the government and keep the price reduced, made it so just young farmers would qualify. Keep the price down and they could utilize the stumpage to get them going. Now they're (forestry and government) coming in and pulling it off then selling it on an auction system where everybody qualifies and just, artificially boosts it too high. So its very hard for young farmers to get in now. So a young guy, if they want to get young farmers in, because there is a lot of land available, they would have to drop that practice, that was one way for young guys to get in, and only they were allowed in like we were back then, only beginning farmers were

allowed in, to qualify. And it gave you the option of cutting some of the costs with the stumpage system.

Many people like the couple above were attracted to the region because of the availability of cheap arable land. Yet changes in the land allocation system have created barriers to their children following down the same path. The inability of young people to take up farming was as often spoken of as the weather, some finding blame in the high price of land, equipment and chemical inputs; one farmer stating that a young person would need close to one million dollars to start up a decent operation. Others finding fault in the forestry and oil sector, which while providing secondary incomes for many farmers, is the preferred primary income of many of their children. In most cases, the future of children is tied to the land and what it is able or unable to provide. Even those young people who have chosen to move to the 'city' are often lured away because of the region's remoteness, seeing the land as a barrier to the products and opportunities of urban living. While there seems to be more Mennonite children choosing to farm than non-Mennonite children, every community member I spoke with, farmer or not, felt the draw of young people away from the area has reached crises proportion. Many of those same farmers who are worried about the loss of young people also, often bitterly, confess that they would not want their own children to farm. The problem it seems is not the young people who abandon a way of life, but the way of life that is no longer viable to most farmers. Yet the impact of economic and environmental change within this community does not stop with young people leaving. Annual events in Fort Vermilion have traditionally included activities such as a rodeo, an events day called the River Daiz, a get-to-know-you-night and a fall fair. During the year of my fieldwork, only the get-to-know-you-night was held as usual. Residents stated that with an increasingly aging

population and fewer young people, there is often a lack of people to take over the planning of events. I often heard people state that there were fewer potlucks, that the legion had closed and there were no longer community bingos. While there are still regular social events such as movie nights at the local school and dances, the social form of the communities has changed drastically, much due to expanding resource development, urban influence and a decreasing number of farmers.

The knowledge agriculturalists hold of their environment as well as their interaction with development industries ensures they have a rounded knowledge concerning the forms of development occurring in their region, the history of such developments and the impacts they can have on community life, the environment and their economy. However locals may feel about development, it is understood as inherently part of the environment.

5.3 Development, Consultation and the Perception of Knowledge:

It has been mentioned in previous chapters that due to an increasing western reliance on science and experts, knowledge has become an entity primarily tied to institutions, urban settings and the procurement of training, degrees and certificates.

In rural places, the *city* represents those people, businesses and institutions with knowledge that is understood as superior to their own, though also often simultaneously inapplicable to their reality. In Fort Vermilion, development and the industries involved can be conceived of as either local or as part of the *city*, depending on circumstance.

For instance, the communities are more disconnected from the oil and gas industry than the forestry industry. While forested space in the area is used for recreation,

grazing cattle, and clearing and selling by farmers themselves, the presence of oil and gas is not immediately felt in the same way. Community members can speak easily about the implications of opening up the white zone (agriculture) into the green zone (crown land forest) but not as easily about the expansion of oil and gas. Oil and gas headquarters and executives are based in far off cities and seismic crews with orders from else-where have access to farm land for testing. Workers in the winter months must leave the town for a place which, though farther in the 'bush' than their own home, is run by distant urban elite for companies often backed by foreign investment.

However, it is not necessarily due to lack of opportunity that farmers in the area are not more connected with the oil and gas industry. The potential development of the Mackenzie Gas Project has provided a forum in which local community members could speak about their concerns. In July of 2006 the Joint Review Panel[13] held a public hearing in High Level in which stakeholders, interested parties and concerned community members were given an opportunity to voice their concerns and ask questions about the project. Later that year in September I attended a hearing in High Level by the National Energy Board which provided similar opportunities for community members to express their concerns. According to hearing transcripts, during the July hearing, after a day of presentations and discussion from the applicants and interveners an evening community hearing was held for any community members to speak. At that time nobody from the general community had any comments and the floor returned to presentations. Groups such as the Arctic Indigenous Youth Alliance, the Sierra Club and the North Peace Tribal Council presented throughout the day and evening. During the second hearing in

[13] An independent panel created by three groups: Federal Government, the Mackenzie Valley Environmental Impact Review Board and the Inuvialuit Game Council.

September, the only people present aside from myself and the hearing representatives was one media representative, the Mayor and one community member. Apparently, Aboriginal interest groups had chosen to go to a later hearing in another town and subsequently the room was almost empty.

Such hearings allow for the articulation of local knowledge through providing a forum by which concerned community members may orally present their concerns, ideas or questions. During the July hearing, numerous interveners presented oral accounts of their understanding of their environment and the implications from such a project. Topics ranged from increasing traffic, associated problems such as drug use, global warming, impacts upon animals such as caribou, and the extent to which employment opportunities would be available to locals. For instance, the Mayor of High Level at the time raised the following concerns:

> Usually, when around a month before break-up and a month before around freeze-up, the regular truck traffic is almost impossible to deal with because in some cases we have as many as four roads into High Level used as overnight parking for trucks. So I'd like hearing the quantities. Up until now we didn't know what quantities we would expect and when. So I think the town of high Level will be planning to maybe parking, temporary parking area and things like that.
>
> Housing is going to be a problem. It is a problem. And of course staff problems will be as bad as you can imagine. You could actually probably get people – about 750 to 1,000 people into High Level today and if they want to work, they could be working tomorrow morning. This is how desperate we are. We don't have bankruptcies. People burnout and close their business. IF one business opens, another one has to close down because the employee situation is that desperate. (JRP hearing transcripts, 2006: 3887)

The Arctic Indigenous Youth Alliance raised many questions some of which are given in the following extract:

> Our first one is how does this pipeline relate to the Athabaskan tar sands? You say – I am just going to read them all – you say the pollution will only be temporary when really in reality it is going to an ongoing problem. Just like the people in Fort Chipewyan who are suffering from different types of cancer because the river has the toxins from the tar sands, tar sand mining from around Fort McMurray, and right now they are battling with the Alberta Government because basically the Alberta Government is ignoring them, saying that it is pretty much their own fault that they are getting cancer and stuff when maybe 10, 15 years ago none of these cancers existed, and now, all of a sudden, people are just dying because of cancer and it is pretty obvious that it is because of the tar sands. (JRP hearing transcripts, 2006: 3889)

Given the opportunity for input and the previously described local concern of oil and gas development, why then was there no representation of agriculturalists at either meeting? When asked, most farmers I spoke with did not know either meeting was taking place. Advertising through radio and newspaper was minimal and for those not already involved in the process it was not apparent where one should go for information. Many also responded that the summer was a busy time for farmers as they were often unable to leave their farm. However, most often the response was that they felt the hearing was not for them but for native groups. The dominant opinion of farmers in the area was that their input would not be listened to, the project would go ahead anyway, they had no information of interest for the board and did not have the time to search out the information necessary to ask questions.

When development and the industries involved become associated in the minds of locals as part of *the city*, they are likewise perceived of as representing a formal knowledge base, one that is understood of as inaccessible to those lacking the proper formal training. So long as the industries remain *experiential* in local discussion, people feel they have something to say, but when such industries become tied to the workings of policy, research and regulation, they no longer have a place except as a voting public. The very need of community meetings, consultations etc... highlights the fact that this development or that is no longer part of the community, that it has been put in the hands of others. In such meetings, it is not the community that has come together to meet, but someone else that has come to present itself to the community. In general, the perception within the agricultural community is that these meetings do little good. Comments of this sort were typical:

> **Ira**: Sometimes it seems like it doesn't make any difference, the government, they do what they want they just want to know what you think, I don't know if they even want to know that.(laugh)
>
> **Sara**: They go through the motions at least.
>
> **Ira**: Sometimes it feels like local people don't have a lot to say. They come here, maybe they have to, maybe they have to have meetings to see what people think but, like they have already decided that this will happen.

Another farmer speaking of a specific meeting regarding the Caribou Mountain Wildlife reserve (one of numerous meetings) had this to say:

> **Dean**: Feed them and they will show up. I went to a meeting, it was on the Caribou Mountain Wilderness Park, well there was nobody from the public there, there was some committee members themselves that's all.
>
> **Jodie**: Why do you think that is?

Dean: There is no advertising; the public doesn't know what's going on. You know. It all depends what it is, whether it will get their dander up or not, if it's gonna get their dander up then they will show up.

Jodie: Do you think people are listened to when they do show up, that it's useful?

Dean: I don't, um, the minister's henchman was there, but, in my opinion the minister has his mind made up what he is going to do no matter what comes back from these things. It's a good show.

There is a fundamental disconnect between local residents and development projects and their representatives. Speaking of various stages of opening up new agricultural land, Sam had this to say:

Sam: Years ago it was pretty good, I was part of the group that initiated opening up this land here. And, it worked very well with the government, they said "lets try it" and it went over well, a huge success story. But it's gone sideways with the mills taking the wood off. It's not economically viable for the young guys now.

Jodie: So it was local people that initiated that this area should be opened up for young people and then its been, regulated…

Sam: And that project ended in the mid 80's. they tried one east of LaCrete but they took out that fact of, that only beginning farmers were allowed. So that all of a sudden became an auction sale again. Where if you only allow beginning farmers it becomes, it's a more reasonable price, that sort of thing… east of LaCrete they dropped that. That one started in the late 80's, after this one, and a lot of that has been developed but you will noticed not as much has been developed as here. And that is part of the reason, it's because the people that took that on weren't in it to become farmers, just investment.

Another example is the creation of the Caribou Mountains Wildlife Reserve. In 1999 local communities nominated an area called the Hungry Bend Sand Hills for the Alberta Special Places 2000 initiative, a program that would see the protection of certain unique areas in the province. While the sand hills did not 'win', an area considerably north of the town in the Caribou Mountains did. While local accounts vary as to the exact regulation regarding access, most said that in the beginning people had a lot of input and

looked upon the idea positively. One particularly involved farmer told me that during the initial proposal process community support was high and people felt involved and listened to. However after initial consultation, those running the project did not return to work out remaining details and the project was implemented without further community involvement. Locals feel that regulations now limit local hunting access in a way which they were sure could have been negotiated. Currently the belief within the community is that no person is able to access the land allotted within the reserve without a guide. Many involved feel the process was a waste of their time and use it often as an example that 'outsiders' don't listen. Joan, a retired farmer had this to say regarding the Wildlife Reserve:

> **Joan**: I think some things, it's nice that they are established and that we have continuity with the past... The ah, Caribou Mountain Reserve that they wanted to keep all that area, but at the same time they have to understand that you can still keep an area but you still need the development there. I mean you can't just sort of stop it. It's going to happen anyway and we need to see different ways of doing things. Just by putting a big block in there and saying no you can't touch this and whatever else, and leaving the development of resources, doesn't make your community grow. It's nice to have a certain reserve, but it was too large an area that was taken , I would sort of say, if there is a lake and a bit of area there, sure fine. But don't sort of put it all over a whole area and squash all the development cause people here have to work

The point here is that residents of the Fort Vermilion area are hesitant towards becoming involved in development projects. This is both because many believe the proposed consultation is only lip-service and because many feel they do not know enough to be involved; that they are not experts themselves and therefore have nothing to offer. Supporting or perhaps creating this impression are numerous examples where community input, when it did occur, was perceived of as having little impact. The conclusion reached by locals is that their input was not worth giving. People are very much convinced of the

superiority of expert's knowledge and subsequently the limits of their own. I propose much of this hesitation and mistrust of development stems from an association of formal meetings and groups with urban bureaucracy, while paradoxically, a feeling of general support towards development stems from its links with the community, its economic future and an understanding of the environment in general as inherently open to development.

Intensive resource development is a reality in northern Alberta; it drives the local economy, allows farmers to keep farming and is so much tied to the environment that it is understood by locals as an intrinsic component of it. Agriculturalists and other community residents have extensive knowledge concerning the actual acts of development, but more importantly understand how it is linked to local history, economy, environment and social life. Knowledge of these links coupled with an intricate understanding of the development itself is what is unique to locals. Outsiders are unable to understand land, its meaning and importance, in the same way locals do. Yet agriculturalists are simultaneously residents of their community and members of western society. A society that in general values expert advise, decisions, and knowledge. They are also at once participants in a system of rural/urban power inequalities, where outside influence is constantly being negotiated to match local reality. Participation in community meetings and various consultation processes is not always as high as some would wish, often community members are not informed of the meeting in time, other times they feel it is not applicable to them, and others times they may feel that participation will be fruitless. Understanding how knowledge is perceived of within

communities and what factors influence its form, is vital to its successful comprehension by outsiders.

Chapter 6

Ways of Knowing: concluding thoughts on local knowledge in farming communities

Diaz and Ginrich (1992) suggest that there are two distinct characteristics which create a rural community: geographical settings that impose certain restrictions on community life and the existence of one particular economic activity, agriculture, that gives locality a community of experience. These authors suggest that prairie agriculture in Canada is characterized by continuous instability as ever changing commodity prices inevitably create an insecure environment. Beginning with the first farms in Canada, instability has been part of agriculture and, subsequently, change is more often the norm than the exception. Yet, in a society that most often associates western farming with industrial agriculture, the notion of change is often immediately linked with images of a dying rural lifestyle, environmentally harmful farming activities and the disappearance of the family farm. While it is true that rural Canada is going through a period of immense change, it has done so numerous times in the past and only time will tell the form of agriculture when it reaches the other side. Yet, farming is more than the activities of production. It consists of the people who live on such farms, raise their families, participate in community events, are employed by local industry and support local business. While calls of rural demise still ring in the air, they work their fields, make ends meet, hunt and fish, log and mine, sell the farm or choose to go on another year. This thesis does not pretend to ignore the changing face of agriculture, but does choose to study a specific agricultural community as it is now and has attempted to leave predictions of its demise, opinions of damaging agricultural activities and worries of

urbanisation to be expressed by those who live there, as they continue to live and adapt to today's farming reality. Urban-driven images of agriculture, which focus on the farm as an object or particular practice, often lose sight of the farmer. Subsequently, in western society, agriculture is often divided and categorized in a very different way than for those actually involved in the practice.

Local knowledge is part of culture. It is formed through the lens by which people interpret their world and is likewise projected outward to such a degree that it also shapes the world it describes. Local knowledge in Fort Vermilion and the surrounding area is a broad network of understanding through which various elements of environment and society are woven together. The pattern of this weave, the form of local knowledge, is unique to this area and outsiders will inevitably understand the same environment and society in a different way. Local knowledge can be a vast storehouse of precise and applicable information for those who desire it, if it were recognised as such, but is also part of a system of understanding that allows people and traditions to exist in an ever-changing local reality. These people, who live and depend on their physical environment, are indeed experts of their surroundings and their chosen craft. More importantly, the form their expertise takes informs local decision making, opinion and action.

There are certain elements of rural life which are particularly relevant to any study dealing with rural issues - the most important is arguably 'what rural is'. Rural first has to do with some form of juxtaposition with the urban, and secondly, is defined by a presence of land and certain uses or interpretations of that land. How both of these elements are understood in rural society is of utmost importance in research dealing with rural issues, particularly that of knowledge. The urban has a constant presence in Fort

Vermilion. Consumer demand, agri-business, policy, politics and economy influence how local people understand their place in society and how they understand what knowledge is and how it comes to be known. By employing certain methods of negotiating urban presence, rural residents in the area are able to identify as rural in an increasingly urban world. Through employing the use of the *city* in local vernacular, understanding change as an inevitable part of life and through confirming boundaries between the rural and urban in everyday conversation, Fort Vermilion affirms its local identity as rural. This local system of incorporating and negotiating urban influence impacts how knowledge is understood; it is at once formal, urban and tied to experts, yet also allows for locals to be experts of their own fields and have confidence in the experiential knowledge of trusted neighbours. Recognising the place of the urban is important in understanding rural identity but it is also important in recognising both the often unspoken power inequality between the two and the exploitation of rural areas that often occurs through urban need. Ching and Creed (1997) go so far as to suggest that rural/urban distinction underlies power relations that shape the experiences of people in nearly every culture. They state that rustic people are marginalized and their culture devalued *vis a vis* urban culture. Additionally they assert that there is an assumption in academic disciplines that the city will take over the rural, that modernity is urban and thus western rural place-based identity and culture need not be attended to. A lack of recognition of alternative western cultures and knowledge forms has been the result, as has a continuation of the marginalized status of rural Canada. What is most important to recognise is that the marginal position of many rural people has been internalised. Subsequently, efforts to

give voice to locals without consideration of their perceived position in western society may lead to unlooked for outcomes.

How land is locally perceived is also an important factor in rural studies. Certain forms of research and policy support the notion of a divisible rural landscape, one which promotes the reduction of complex interrelations between community, economy and environment to individual identifiable variables. While such an approach undoubtedly has merit, and is indeed employed within this rural community when necessary, it does not represent land as a whole, as both constructed and realist as it is experienced by farmers. It is this integrated understanding of land(scape) which provides agriculturalists with a unique understanding of their environment. Geertz (1973) postulates that it is through social action that cultural forms find articulation; knowledge is indeed a cultural form and it is acted out on the farms and in the communities of rural Alberta. Ethnography is the methodology which is best able to capture the ways in which farmers understand and become experts of their surroundings. Its holistic and relativistic approach allow for the relationships, which express themselves upon the land, to be interpreted, in as close a way as possible, as locals interpret them.

The knowledge local agriculturalists hold is time-tested, experiential and holistic in nature. Through observation and experience, farmers hold and continuously add to a store of knowledge concerning their surroundings. Rather than being diminished by increasing urban influence, outside knowledge is instead incorporated and adapted to local reality - a technique which is fundamental in such a practice as agriculture. Farmers in the Fort Vermilion area understand their environment to be linked to history, society and economy in such a way that they are inseparable. Local wildlife, fauna, soil, water

and weather are at once historic, economic and social in nature and decisions are made regarding them based on such an understanding. Local knowledge consists of the links between different aspects of the environment and society and thus decisions are made and actions taken based on such links. While some of the practices involved in agriculture may be harmful to the environment, separating economic and social need from productive fields is something farmers are not always at leisure to do. This research is not meant to romanticise farming. Instead, it suggests that the knowledge used in local decision making is something unique to those who experience the area through practice. While such decisions may not always be in accord with urban understandings of pristine wilderness or small family farms, they must be understood in the context of the reality in which they were taken.

That reality includes the need for other forms of resource development. Oil and gas and forestry are a part of the Fort Vermilion area and only promise to be more so in the future. While locals may express concern over some of the impacts of such development, their understanding of the environment as 'made to be developed' and their inferior power position creates a situation in which such concerns are often accepted as unavoidable. A history of attempted consultations, through which locals feel they had no impact, only work to affirm the notion that their knowledge of environment, development and understanding of subsequent impacts is irrelevant. While meetings may not be well attended, they are well discussed throughout the community. It is outside of the meeting room where people feel at liberty to speak their mind. A lack of appreciation for local methods of communication and a perceived belief that local opinions are not heard, merge to create a situation where barriers are erected between locals and outside interests.

However, there are examples where such barriers have to some extent been overcome, such as during the Fish and Wildlife meeting and one-on-one meetings with Fish and Wildlife and agricultural representatives. Such meetings, boards and consultation initiatives as discussed in this paper, are independently trying to access a body of knowledge which some would argue doesn't even exist. Surely the proof of the importance and validity of local knowledge can at least in part be proven by the numerous organisations which are trying to access it, though 'it' may be under other names. Furthermore, any failure for meaningful dialogue between locals and such organisations would be a failure of methodology and motive, not of the knowledge itself

The interaction farmers have with their land imbues it with a meaning unique to the area and imperative to local culture. These farmers are people with a unique understanding of the environment, a culture specific to rural areas - an identity constantly in negotiation, one that is dependant upon boundaries and subject to an unequal power relationship with urban centers. It is imperative that the knowledge held by farmers be understood through holistic studies that allow the *form* of local knowledge to be expressed along with its content. It is all too easy to gloss over local interpretations of knowledge and work from an assumption that such knowledge is seldom recognised by locals themselves. To do so is to overlook an important aspect of knowledge - that its perceived form can impact content and practice. There are numerous ways of knowing, but not all are recognised as valid, useful, important or even as forms of knowledge. The very questions of 'what knowledge is and how it is known' must be asked not only by the researcher, but by the community itself in order to shed light on underlying assumptions of power, authority and ones place in dominant society.

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