Indigenous Lands Management, Cultural Landscapes and Anishinaabe People of Shoal Lake, Northwestern Ontario, Canada

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Abstract

The purpose of this paper is to generate a dynamic description of cultural landscapes that moves current thinking beyond cultural landscapes as artifacts that are considered to be final products. In this paper, "cultural landscape" is defined as the physical expression of the complex and dynamic sets of relationships, processes and linkages between societies and environments. A society's environmental perception, values, institutions, technologies and political interests will result in particular planning and management goals and objectives for a specific landscape. Indigenous resource management systems often result in different cultural landscapes than those of managerial ecology. The process of how an indigenous cultural landscape is replaced by a cultural landscape of managerial ecology is documented in this paper. The restoration of indigenous cultural landscapes will first require recognition of the custodial responsibility of indigenous peoples for the beings with whom they share the land. This can then lead to alternative indigenous lands management institutions and organizations and the restoration of indigenous landscapes in northwestern Ontario. The developmental context established by indigenous land management institutions and organizations could also allow for a flourishing of novel resource management practices and technologies.

L'objectif de cet article est de fournir une description dynamique des paysages culturels qui dépasse l'idée actuelle voulant qu'il s'agit d'artefacts considérés comme des produits finis. Dans cet article, le « paysage » culturel est défini comme étant l'expression physique d'un ensemble complexe et dynamique de relations, processus et liens entre les sociétés et les environnements. La perception de son environnement par une société, ses valeurs, ses institutions, ses technologies et ses intérêts politiques, produiront une planification et des objectifs de gestion particuliers pour un paysage spécifique. Les systèmes de gestion des ressources indigènes produisent souvent des paysages culturels différents de ceux de l'écologie de gestion. L'article examine la façon dont le paysage culturel indigène est remplacé par un paysage culturel associé à une écologie de gestion. La restauration des paysages culturels indigènes exige d'abord la garde par les peuples indigènes des êtres avec lesquels ils partagent la terre. Cela pourrait mener à des institutions et organisations indigènes de gestion des terres et à la

restauration des paysages indigènes dans le nord-ouest de l'Ontario. Le contexte développemental établi par les institutions et organisations indigènes de gestion des terres pourrait aussi permettre l'épanouissement de nouvelles pratiques et technologies de gestion des ressources.

Introduction

> *What are meant by natural resources are game, fur, fish and their supplementary adjuncts, such as wildberries, rice, roots, maple sugar &c., which contribute to or entirely provide the maintenance of a large proportion of the Indian population, not only directly as food and covering, but further as articles of commerce (The Annual Report of the Department of Indian Affairs 1905: xxix).*

What makes the study of natural resources and environmental management so interesting is how it brings together societies, environments and resources. This can be seen in the quote from the 1905 Department of Indian Affairs Annual Report. The report's author defines natural resources – in the context of Aboriginal society – as the things that are drawn upon for food, covering and commerce. He does not, of course, include minerals, used to make pipes, nor timber, used to make houses and generate heat – a principle means of survival in a northern climate. The way in which a person, such as an agent of the Department of Indian Affairs in 1905, views the linkages between society, environment and resources is often based upon the cultural perceptions, values and political interests of the person's society. Some of the ways in which these linkages have been analyzed and portrayed by western, scientific societies have been reviewed in Davidson-Hunt and Berkes (2003). Many found that a useful concept for probing the complex dynamics of "humans-in-nature" systems is that of a cultural landscape.

In this paper, "cultural landscape" is defined as the physical expression of the complex and dynamic sets of relationships, processes and linkages between societies and environments. Cultural landscapes are an expression of societies writing their history upon the land or, as Ingold (2000) has said, the landscape is social history congealed for a specific place and time. While Ingold (2000) does not utilize the term cultural landscape, many of his observations regarding landscape and temporal dynamics are relevant to the concept. Cultural landscapes have a biogeophysical endowment. The cultural perceptions, values and political interests of a society will lead to different technological innovations and possible modifications in the biogeophysical endowment. Likewise, cultural perceptions, values and political interests will change how a society perceives things as resources that can provide for a secure and meaningful life (Butz 1996). The cultural landscape of one society is not always visible to members of another society due to differing perceptions, values and political interests. Perceptually, a

cultural landscape only becomes visible as you move within the landscape under the guidance of people who are intimately aware of the forms, functions and processes of a specific landscape (Davidson-Hunt 2003).

The strength of the cultural landscape concept is that it provides a strong metaphor for the two-way relationship between people and place for a specific time in history. It corrects the assumption that people – especially indigenous peoples – lived off the bounty of nature with little expression of agency. The weakness of the concept is that it may be used to freeze the history of the relationship between society and environment in time. The pieces of the cultural landscape that can be restored are then extracted from the fabric of the cultural landscape and preserved as an artifact of the past. Little thought is given to their role in developing innovative indigenous cultural landscapes that could provide secure and meaningful indigenous livelihoods for the future (Ingold 2000). If we are not to abandon the concept of cultural landscapes, we need to infuse it with a consideration of the ongoing processes of cultural adaptation through the interactions of societies and environments (Ingold 2000). A society's environmental perception, values, institutions, technologies and political interests will result in particular planning and management goals and objectives for a specific landscape (Scott 1998).

There are many authors who have contributed to this emerging consensus on dynamic cultural landscapes. One of the first to bring forward the idea of human agency in relation to the shaping of the environment was Carl Sauer (1956). A contemporary of Sauer was Omer Stewart (1954) who looked specifically at how fire was used by humans to shape their environment. Henry Lewis (Lewis and Ferguson 1988) and Stephyn Pyne (1982) continued to explore the relationship between human agency, fire and landscapes. Now it is not uncommon to see complete books challenging the assumptions of "natural" landscapes (Boyd 1999). This work has provided extensive support to the notion that many, if not all, landscapes are dynamic, cultural expressions, related to perception, values, institutions, technologies and political interests. Cronon (1983) provided one of the first dynamic descriptions of the process by which cultural landscapes change through the interactions of societies and environments. He demonstrated that as colonial perception, values, institutions, technologies and political interests became dominant, the cultural landscape of the New England Indians began to dissipate into the mists of history. The cultural landscapes of colonial and industrial societies increasingly excluded indigenous peoples of New England from pursuing their planning and management goals and objectives to secure a meaningful livelihood.

Bavingtion and Slocombe (2002) draw upon the concept of managerial ecology to characterize systems of resource management that displaced indigenous North American systems. Managerial ecology, they suggest, emerged from a complex set of historical relationships that favoured centralized command and control. The pathologies of the command and control model of resource management have been well documented (Bavington 2002, Holling and Meffe 1996, Szabo 2002). One of the central problems of managerial ecology is that it has managed for a single commodity at the expense of the biological diversity of landscapes. The simplified cultural landscapes of managerial ecology have not provided

indigenous communities with the resources necessary to secure meaningful livelihoods (Rangan and Lane 2001).

This theme issue of *Environments* focuses on alternative models of resource management as opposed to the critiques of managerial ecology featured in the previous issue (Bavington and Slocombe 2002b). One of the first steps, proposed by Berkes (this issue) for alternative resource management models is a redefinition of terms. He suggests that we expand the meaning of resources to include "ecosystem products and services used by different groups of people (and different species)" (Berkes, this issue: 9). Management he defines as "governance, social relations, adaptation and the maintenance of system resilience" as opposed to "domination and control of people and nature" (Berkes, this issue: 9). Such alternatives may allow for the development of novel indigenous land management institutions and organizations and the restoration of indigenous cultural landscapes and associated biogeophysical communities (Striplen and DeWeerdt 2002).

This paper is based upon research undertaken as part of an ethnobotany and ethnoecology project with Iskatewizaagegan No. 39 Independent First Nation (IIFN) located on Shoal Lake, Ontario as shown in Figure 1 (Davidson-Hunt 2003). The research was undertaken under the conditions specified by the research protocol signed by IIFN and the University of Manitoba (Berkes *et al*. 2002). The material presented in this paper is based upon a review of the historical record and informal, unscheduled interviews with elders of IIFN in 2000 and 2001. Published historical documents and archival documents were from the Lake of the Woods Museum, Kenora Public Library, Hudson Bay archives and the Government of Manitoba archives. Interviews were recorded on digital video camera in Anishinaabe and then transcribed and translated into English by the community researcher. Interpretations presented in this paper were discussed with elders and community researchers during 2001 and 2002. Further details of methodology can be found in Davidson-Hunt (2003).

The purpose of this paper is to demonstrate that indigenous land management institutions (rules-in-use) and organizations (agencies, enterprises) are a necessary prerequisite for restoring indigenous cultural landscapes. Indigenous resource management systems provide an alternative system of resource management that will result in unique sets of forms, functions and processes on the landscape. The paper begins by documenting an indigenous cultural landscape that is captured in the historical record. Indigenous people played an active role in shaping the land through their perceptions, values, institutions, technologies and political interests. The paper then turns to the historical period in which managerial ecology began to change the cultural landscape of northwestern Ontario. This section of the paper documents how the perceptions, values, institutions, technologies and political interests of Anishinaabe people became excluded from resource planning and management. The paper concludes by considering how alternative resource management systems may allow for a re-emergence of indigenous cultural landscapes.

The Cultural Landscape of the Fur Trade

The ancestors of Shoal Lake people are said to have moved into northwestern Ontario along with the early fur traders (Lund 1984). The

Figure 1. Location of Iskatewizaagegan No. 39 Independent First Nation in the context of North America and Northwestern Ontario (from Davidson-Hunt 2003)
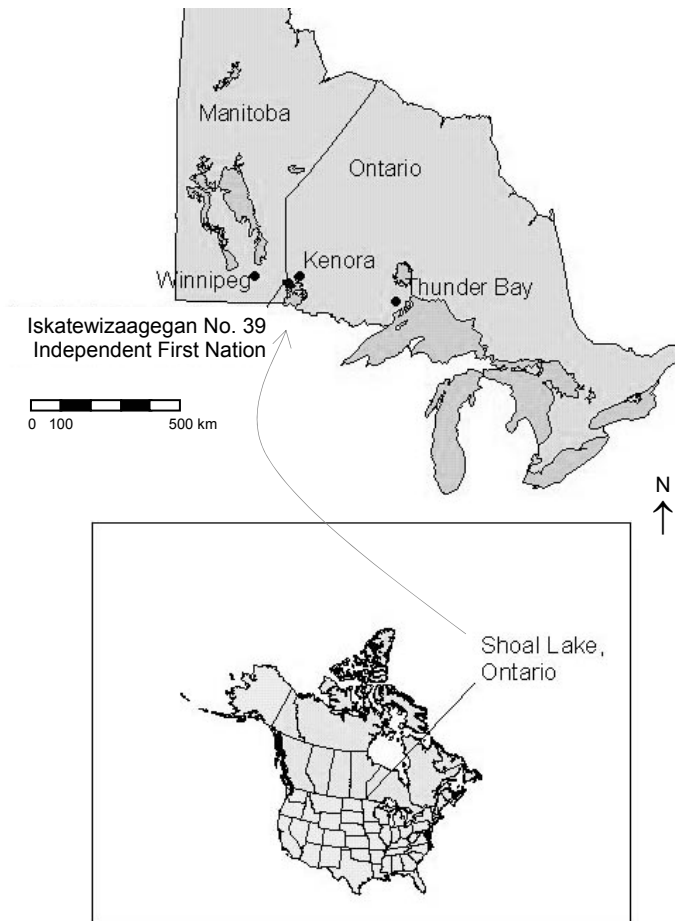
diaries of Alexander Henry "the elder" provide one of the earliest written accounts of the types of roles played by the ancestors of Iskatewizaagegan Anishinaabe people in the fur trade (Henry 1969). As Alexander Henry moved into Rainy Lake and along the Rainy River he began to record the resources that would be necessary to provision the fur trade. He noticed, for instance, how the banks rose gradually from the Rainy River and were covered with a luxuriant grass. As the soil was of a fine grain he thought that these lands would be good lands for agriculture. As he traveled through Lake of the Woods he noted how wild rice (*Zizania aquatica*) grew in abundance throughout the lake and into the Winnipeg River system. Birch (*Betula*

papyrifera), maple (*Acer negundo*), cedar (*Thuja occidentalis*) and black spruce (*Picea mariana*) trees, along with moose and elk are all recorded in his journal. The "frothing waters" during sturgeon spawning were also noted with great interest (Holzkamm *et al*. 1988). Once he arrived on the prairies his emphasis changed to the existence of the large herds of buffalo. Alexander Henry re-traced the economic organization of the fur trade established by the French in the 17th and 18th Centuries.

Alexander Henry knew that these resources were key to the provisioning of the fur trade. Fertile lands allowed for the cultivation of maize (*Zea mays*) and potatoes (*Solanum tuberosum*) while pasturelands could be used to graze cattle and horses. Birch trees were a necessity as the Anishinaabe were the main suppliers of canoes for the fur trade that they built and repaired out of birch bark. Cedar and spruce were also important in this regard as the bark of cedar and the roots of the spruce were utilized to sew the seams of the canoes. The Anishinaabe were also accustomed to trading sugar made from the sugar maple (*Acer saccharum*) or the Manitoba maple (*Acer negundo*). Waterfowl were hunted in the spring near the sugar groves and in the fall as people were harvesting wild rice. Large game and fish were also an important source of food at this time and the Anishinaabe traded some of these to the fur posts. While all these resources were critical for the existence of the fur trade, the buffalo were the key to the operation of the inland posts. As such, it was essential to establish posts at the eastern and northern edges of the prairies. Buffalo, turned into pemmican, provided the main staple for the woodland fur posts that provided the bulk of the furs. Alexander Henry's journal provided an inventory of the routes of communication and the resources needed for the reestablishment of the fur trade in the region (Henry 1969).

During this period the Anishinaabe were critical to the success of the Northwest Company for the supply of furs and provisions (Bishop 1974, Lytwyn 1986). The 1793 post journal of the Northwest Company at Lac La Pluie reflects the importance of the Anishinaabe people. John McKay, of the Lac La Pluie post, records in the years between 1793 and 1796 how he had traded for wild rice, venison, goose eggs and other provisions that he needed to survive (Lac La Pluie Post Journal HBCA B.105/a/1-4). What is not reflected in the early records is how the Anishinaabe people crafted the landscape to provision the fur trade. While the economic organization of the fur trade drew upon the Anishinaabe livelihood, the crafting of the landscape was necessary to intensify the production of resources. The dual action of flooding and soil deposition and the firing of those lands by the Anishinaabe, for instance, created the meadows along the Rainy River over time. It was this practice that created the disturbances, which provided berries (for example, *Vaccinium* spp., *Rubus* spp., *Ribes* spp.), browse for some of the ungulates, and birch stands for the canoes. As the demand for provisions increased, Anishinaabe families tended and expanded groves of sugar trees and wild rice stands. On the prairies, Anishinaabe fire practices expanded the tall grass prairie and increased forage production for the buffalo. Since the time of the French fur traders, this was a landscape tended by the Anishinaabe for the commercial fur trade.

When David Thompson and Alexander Henry "the younger" moved onto the plains they made constant reference to fire (Coues 1965, Glover 1962, Tyrell 1916). Henry mentioned that the plains were on fire every spring and every fall (Coues 1965). Henry and Thompson agreed that these fires were intentionally set for a variety of reasons. One reason they mentioned was for the purposes of warfare. Both the Sioux and the Anishinaabe used fire as a method of war. Thompson and Henry also commented on how spring fires were understood to be useful for greening up the plains and meadows in the spring. Whatever the motive, the result was that there was an extensive band of meadows that ran along the eastern and northern fringe of the plains.

Thompson, as recorded in Box 1, recognized that the result of the burning was the production of what he termed "meadows." These meadows occurred on the deeper soils of the eastern and northern fringes of the plains. Burning changed aspen bush into a lush meadow. As meadowland increased there was a concurrent increase in the grazing lands of the buffalo and the buffalo population. In other observations, Thompson notes how these meadowlands could be easily opened by the plow as the work of removing

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Box 1. David Thompson's Observations Regarding Fire on the Prairies

We journeyed on the west side of the River; the whole distance was meadow land, and no other Woods than saplings of Oak, Ash and Alder. From the many charred stumps of Pines it was evident this side of the River was once a Pine Forest. In the more northern parts, where Pine Woods have been destroyed by fire, Aspins, Poplars and Alders have sprung up, and taken the place of the Pines; but along this, the Red River from the mildness of the climate, and goodness of the soil, Oak, Ash, Alder, and Nut Woods have succeeded the pines.

This change appears to depend on soil and climate; for in the high northern latitudes, where in many places there is no soil, and the Pines spread their roots over the rocks, Pine grounds, when burned, are succeeded by Pines; for Aspins Poplars and Alders require some soil. Along the Great Plains, there are very many places where large groves of Aspins have been burnt, the charred stumps remaining; and no further production of Trees have taken place, the grass of the Plains covers them: and from this cause the Great Plains are constantly increasing in length and breadth, and the Deer give place to the Bison. But the mercy of Providence has given a productive power to the roots of the grass of the Plains and of the Meadows, on which the fire has no effect. The fire passes in flame and smoke, what was a lovely green is now a deep black; the rain descends, and this odious colour disappears, and is replaced by a still brighter green; if these grasses had not this wonderful productive power on which fire has no effect, these Great Plains would, many centuries ago, have been without Man, Bird or Beast (Tyrell 1916: 248).

the trees had already been undertaken. Thompson was also one of the first to notice the difference between burns on different soil types. On stony pinelands he noted that fire tended to reproduce pinelands. However, when pines growing along rivers were burned, the plant community tended to shift toward oak, ash and alder as one moved south. In the north, fire in riparian areas tended to move the plant community toward aspen, poplar and alders. David Thompson provided the first description of how First Nations people utilized fire to open and maintain meadows.

Bigsby, a commissioner of the 1822-1824 joint U.S. and British boundary commission, was an astute observer of the Anishinaabe use of fire to craft the landscape. In his book he wrote "The Indians burn large tracts of pine barrens in order to favour the growth of very useful autumnal fruits" (Bigsby 1969: 207). Later he mentioned how the portage leading from Lake of the Woods to the Winnipeg river had been burnt. He also noted how some points and islands on Lake of the Woods have been burnt. Later in his journey he mentioned how a party of Anishinaabe were gathering "black bilberries" that he calls "Vaccinium Canadense." He noted that: "This fruit is incredibly abundant all over these countries. For miles we cannot tread without crushing them under our feet; and we owed much of our health and strength to the free use of them. The berries are very deep purple, as large as the out-door English grape, and they grow on a low creeping shrub. Their flavour is sweet and agreeable; most so in the spring, when they have lain a winter under snow" (Bigsby 1969: 313-314). He also recorded how the promontory near Pipestone Island was well wooded but became naked towards its middle as the Anishinaabe purposely fired it. The comments by Bigsby completed the picture of the landscape and clearly drew the linkage between fire, Anishinaabe people and the fur trade livelihood.

In the year 1857 the Palliser (Spry 1968) and the Canadian expeditions (Dawson 1968; Hind 1860; Hind, Dawson and Gladman 1858) passed through Lake of the Woods. These expeditions confirmed the basic pattern of the fire-generated landscape reported since the time of Alexander Henry "the younger" and David Thompson. In the Canadian Shield country there were many reports of burnt forests that seemed to be noted mainly in the pinelands (Spry 1968). Often the pinelands were burnt so that berries could be obtained, or the berry patches themselves were burned to maintain the berries. The banks of rivers were often burnt and these were covered by meadows. Palliser at points noted that these meadows were the sites of Anishinaabe camping grounds (Spry 1968). There were swamplands which provided decent hay especially if burnt off in the spring. These open meadows created safe places to camp as well as providing pasturage for the main ungulates which were hunted.

Moving onto the prairies the basic pattern of meadows and open groves of oaks and other hardwoods was found along the rivers. Fire also expanded the open meadows and pushed back the aspen woodlands to the east and the north. The expedition of Palliser picked up this early observation of Thompson's. It was Palliser who divided the prairies into the short grass and tall grass prairies and noted that the latter were created by the inhabitant's long practice of setting fire to the land (Spry 1968). The tall grass prairie zone extended from the southwest corner of Lake of the Woods and swept in a

great arc toward the northwest. As with the woodlands, the prairie was a landscape shaped by fire and was crucial to the success of the fur trading enterprise.

The fur trading landscape was a fire-generated landscape. How much of this was attributable to human agency? If the written record is taken as accurate, it suggests that there was a mixture of human agency and natural ignitions from lightening. In areas where burning was a frequent occurrence there was little fuel to create large fires. As most burning occurred in early spring and late fall it is likely that the burning along rivers and in berry patches was localized. On the prairies the fires that are reported appear to have been quite widespread. However, even in the woodlands it is likely that in dry years, large fires, such as those reported in 1803 and 1804, may have started small and expanded into large conflagrations. Regardless, it is clear there was little attempt to suppress fire. Rather, it was managed by reducing the fuel load through frequent burnings. One of the few Anishinaabe voices on the use of fire is presented in Box 2.

Box 2. Observations of Madeline Theriault on Indian Use of Fire

White man makes a farm to grow hay to feed his animals. He also grows vegetables for food. Indians also feed their animals, only in a different way. Around the middle of April, the Indian trapper looks around to find a bare spot, mostly up on the rocks where the snow goes first, where there is still a lot of snow at the bottom of the hill. They set a match to this bare spot and only burn where it is dry and bare, so there's no danger of a big forest fire because the fire stops when it reaches the snow.

Two years later you would find a big patch of blueberries in amongst the bushes. And you would see all the hungry animals feeding on those blueberries: fox, wolves, black bear, partridge, squirrels, chipmunks, and all kinds of other birds. No doubt they were happy to find those berries. It was the trapper that got it for them by setting the fire.

This is what I mean when I say Indians feed their animals too. As we would preserve them for our winter use. After a few years, young trees would grow on that burnt place. Then the rabbits would get to feed from those young bushes. In later years, the little trees would get bigger. Then the moose and deer get to feed from it. So, you see the setting of these small fires can go a long way in feeding many animals (Theriault 1992: 74-75).

The Cultural Landscape of Managerial Ecology

Seven years after the Palliser expedition ended in 1860, Canada became an independent Nation with the signing of the British North America Act. Two years later the Temporary Government of Rupert's Land Act (1869) began the transfer of land from the Hudson's Bay Company (Rupert's Land), to Canada.

This led to the first of the clashes between a fur trading way of life and settlement when Louis Riel staged a rebellion against Canada. Troops were sent out via Lake of the Woods from Canada to the Northwest Territory to put down the rebellion. In 1870 the Manitoba Act was signed which created a new territory for the Dominion of Canada. In 1873 Treaty #3 was signed by the Anishinaabe people and the government of Canada at the Northwest Angle.

In the same year that the treaty was signed Simon Dawson surveyed and built what later became the Dawson trail. The Dawson trail was a mixture of corduroy roads and steamships that brought settlers through Canadian territory to the Red River and to points beyond. 1873 was also the year that Sir Sanford Fleming travelled west surveying the line for a railway (Fleming 1879; Grant 1877). Part of the stimulus for signing Treaty #3 was to establish the Dawson trail as well as to begin planning for the Canadian railway that became the Canadian Pacific Railway.

These Canadian communication routes allowed settlers to move to the prairies and ship their products back to the markets of the east. They proved to be vital to the development of a Canadian Nation. The best route to the west at this point in time was to use the railway through the U.S. and then travel by paddleboat up the Red River. However, the Canadian government feared that all produce from the west would start flowing in that same direction. Canada needed the grain produced in the west to feed the steady stream of immigrants entering into eastern cities during the industrial development of eastern Canada. In order to build the railway, they would also need access to timber for ties and bridges. This had led to an order-in-council being issued to a man named Fuller for a timber lease on Lake of the Woods in 1872 (Lake of the Woods Museum Exhibits, Kenora, Ontario). Although this order-in-council was not approved until 1875, it indicated the need for a Treaty in the Lake of the Woods watershed.

The 1870's were an active period on Lake of the Woods as settlers moved across the lake via steamship to the Dawson trail and onto the prairies. In 1878, John Mather, a timber merchant from the Ottawa valley, bought the Fuller timber lease and by 1879 was in Rat Portage (Kenora), looking at a site for a sawmill (Mather Walls House Exhibits, Kenora, Ontario). By 1882 the Canadian Pacific Railway had made its way to Kenora, and Mather was supplying ties and timbers for the construction of the railway into the prairies. Seven other sawmills were operating around Kenora by 1886, supplying the railway and the building boom taking place on the prairies. These seven mills supplied 50% of what was needed by the railway with the other 50% coming from Minnesota. Between 1892 and 1895 Mather built a dam at the outlet of the Lake of the Woods to the Winnipeg River. The purpose of the dam was not only to supply electricity but also to raise the water level on the lake so that it would be easier to move log booms.

In 1878 the first Fire Act was passed in Ontario. During the fur trade era fire was a danger but not of grave concern. By the late 1800's however, fire was seen as a destructive force to be combated and suppressed. Timber, along with mining to a lesser extent, became the main economic drivers for northwestern Ontario. Interest in the forest shifted from provisioning the fur trade toward an interest in mature timber for railway sleepers and lumber. All

of these Canadian economic developments made it appear *necessary* to eradicate fire from the forest.

While the economic interest in timber was the main driver for eradicating fire, the fear of fire also had roots in a number of catastrophic fires that occurred in the late 1800's. The latter half of the 1800's was the greatest period of settlement in both Canada and the United States. Settlement depended upon the construction of railways to move people west and to take the emerging products of their labour to the east. Settlement and railways led to an increase in the number of conflagrations that occurred in the northern woodlands of Canada and the United States. Stephen Pyne traces the devastation of the Wisconsin fires of 1871; the Minnesota fires of 1881, 1894 and 1910 (Pyne 1982). A similar pattern of fires was reported from the clay belt of northeastern Ontario and the settlement areas along the Rainy River (Lambert 1967).

Settlement created a complex set of factors that led to an increased incidence of fire (Pyne 1982). In a dry year virtual firestorms broke out. With settlers lighting fires to clear their land, the increased amount of slash found on the landscape from land clearing and logging could lead to tremendous fires. Railways themselves also led to an increase in the amount of fire. Sparks from the steam fired engines, or from the wheels during breaking and wheel slippage going up inclines, could also start fires. As more people and built structures became established in these regions, there was also a corresponding loss of life and infrastructure. The protection of timber, however, was the main impetus for fire suppression legislation. The political will to implement the legislation came from the increase in deadly fires due to settlement, logging and railways.

Pyne (1982) identifies the primary years of firestorms between 1850 and 1930. In Canada the period from around 1880 to the 1930's was a time of active legislative development and enforcement of fire suppression. After the first Fire Act in 1878 it was revised in 1887, 1897, 1913, 1914, 1917, 1927 and 1930. After that active period of legislative development it was only revised again in 1937, 1948, 1950 and finally in 1960 (Lambert 1967). This legislation became increasingly punitive in the fines and jail terms that could be given to a person causing a fire. The first charge laid on Lake of the Woods was in 1914 to two settler fishermen who left a campfire burning (as reported by the Kenora *Miner and News*). Legislative tools were created allowing the province of Ontario to hire fire rangers with the power to charge people with contravening the legislation. These same fire rangers also held the power to detain people, question them and require them to leave the bush. Finally, fire rangers were responsible to find areas of high ground upon which to establish fire towers. It was during this period that the province began to establish the legislative and technological tools for the surveillance of fire risks and the enforcement of fire suppression (Lambert 1967).

The same time period also saw an increase in efforts to educate the public about the danger and economic loss resulting from forest fires. There are few recorded incidents about fires being caused by the Anishinaabe people. In Richard Lambert's (1967) book, an 1899 fire in northeastern Ontario was attributed to the burning of a blueberry patch by an "Indian." Such incidents led the Ontario Department of Lands and Forests in 1900 to

ask the Hudson's Bay Company to distribute copies of fire proclamations in the Indian languages along the main canoe routes. One such proclamation in Cree syllabics was found in the MG1-A10 Boundary Commission file of the Provincial Archives of Manitoba. The Kenora Daily *Miner and News* reported on all forest fires during this period. The month of April often contained a week called "forest fire prevention week." During that week information would be published on the economic cost of fires, dangers to the public and the cost to infrastructure. The cause of fires was said to be 90% human with a variety of sources from settlers, campers, railways and timber operations. There was a strong moral tone to these campaigns with one using the title "Are you a Canadian Nero = Fiddling while Forests Burn?"

The use of fire by Anishinaabe people became increasingly difficult. However, as a result of the increase of fires during this period, it also was a time when Anishinaabe people were very active in the commercial blueberry trade. This confluence of events during the 1880 to 1930 period led to the emergence of a vigourous commercial blueberry enterprise throughout the Lake of the Woods and the Winnipeg and English River system. The fires of 1910 led to great blueberry heaths throughout the district by 1915. The *Miner and News* reported in 1915, "The area in this district covered by blueberry plants is so large that the crop gathered is only limited by the number of pickers available." The crop was reported as a prolific one for that year, with many people picking due to the employment shortage, along with Anishinaabe people who were well known for their involvement in the industry. During this period the Kenora *Miner and News* claimed that Kenora was setting records for blueberry production in the whole Dominion of Canada.

At the same time that the blueberry industry was thriving on account of the large berry lands created through fire, the effort to suppress fire was increasing. Throughout the 1920's The *Miner and News* reported on the increase in fire rangers and the use of seaplanes to spot fires and deploy men to put them out. There was also a corresponding increase in the effort to educate the public. Careless use of fire was seen as an economic and moral insult. However, this did not stop fires from breaking out throughout the next cycle of dry years during the late 1920's and early 1930's.

Large fires were recorded during the 1920's to the west of Whitefish Bay and surrounding Redditt (Ontario Forest Research Institute 1998).   In the 1930's fires broke out on the Aulneau Peninsula and again around Redditt. It is difficult to know what started these fires. Fires were often attributed, in the Kenora *Miner and News* from this time period, to careless berry pickers, campers and fishermen as well as some activities from logging. The fires around Redditt occurred near the rail line so it is possible that they were started due to the railway. It is also possible that they could have been due to natural sources such as lightning. Regardless of the source of fire ignition, there is little doubt that dry years combined with settlement, logging and railways resulted in a blueberry landscape. It was a landscape that provided Ella Dawn Green and Walter Redsky with their memories of blueberry picking during the 1930's and into the 1940's. The memories of Ella Dawn and Walter are recorded in Box 3 and Box 4, respectively.

Box 3. Memories of Ella Dawn Green Regarding Blueberry Picking

I have been asked to talk, to remember, about where they used to pick berries and how they used to travel. As far as I remember in Iskatewizaagegan, the people would gather together, the ones who were going to go berry picking. Once there were enough people that wanted to pick, they would go to Indian Bay. From there they would get on the freight train. They all got on the freight train. The boxcars that were connected. They would have with them their clothes, their boats, their dogs. They would not leave their dogs; they would take everything they owned. They go toward Winnipeg, but not as far as that because they would get off and get on another one. When we got on the other train we would go toward Redditt. We rode the freight train all the way there and this is where we got ready. They would all paddle, we would all paddle to where we were going to set up a camp at a place they called Ena. Once we got to Ena, we all supported each other to get the camp ready and settle in. We stayed there all season to pick berries.

There was a man there who ran a store and to whom we would sell the berries to make money. I remember the old people would play cards in the late afternoon. The kids would play what ever they enjoyed to play. Everyone got sent to bed early in the evening. Very early in the morning they would get ready. They had to canoe a long way. They canoed for a distance and it took awhile every day. They would be gone all day. They didn't get back until the sun was setting. I was amazed at how every one supported each other, even the kids supported themselves. They would pick their own berries. I was happy that my mother made me pick berries and she told me to try and fill up my container. At the end of the season people would meet and decide when to move to the wild rice fields (Davidson-Hunt, unpublished transcripts, 2001)

Ella Dawn and Walter remember the time when the families from Shoal Lake would travel west on the Greater Winnipeg Water District Railway toward Winnipeg. They would load up their canoes, dogs, tents and anything else they needed for berry picking and ricing into the boxcar. Where the rail lines met east of Winnipeg they would transfer everything into a boxcar on the C.N. north line and head east to Redditt. There they would get off and go to the lakes where their families would pick. While Ella Dawn's family went to Ena Lake, Walter's would go to Armstrong Lake. Anishinaabe from all over the Lake of the Woods watershed would be travelling to lakes near Brinka, Farlane, Jones, Favel or McIntosh. The section stations along the railway often served as the names remembered as the place they went picking as this is where people went to sell their blueberries to the commercial buyers. The Hudson's Bay Post records of Grassy Narrows indicate how people

would leave the community to go down to the "line," or Jones, to pick berries. As far east as Dinorwic, the Hudson's Bay Post reports on people going to pick berries. Clearly, the blueberry harvest was an activity with widespread involvement by Anishinaabe people.

Box 4. Memories of Walter Redsky Regarding Blueberry Picking.

I am going to tell you about when we used to go berry picking. My kids were very small and this is where one of them learned to walk. When we were finished picking berries, at the end of Armstrong Lake, the buyer would come to buy the berries. We also lived with people from Sageeng at Armstrong Lake. I used to hear that at Ena that they played moccasin games. I wished I could go. And over by Reddit there was a field, they had a baseball tournament. Once a month they would play ball on that field. And over by Reddit they would pick berries. As I was saying, we used to pick berries all over. We camped all over. A man named Duggan would come to buy the berries. People would come from all over to pick berries, Sageeng, Whitefish Bay, Shoal Lake, Whitedog, Northwest Angle, Grassy Narrows, everywhere.

I am going to talk about where they used to pick berries. They picked all over. Across the lake in the river there was a big fire. And over there, there is a river, that river is long. Its about three miles in the bush. And here it was burnt black. The fire burnt a long way, almost to the Manitoba boundary where the big border cut is, that is as far as it went. After the fire that was when the berries came. There were berries all over. There were about three seasons after the fire, that is when the berries grew. After that fire they didn't have to go to other places. They could pick all the berries here on Shoal Lake and sell them to John Holmstrom (Davidson-Hunt, unpublished transcripts, 2001)

At the end of the blueberry season the Shoal Lake people would travel to other spots known to them for wild rice. They travelled by the C.N. or the C.P.R. line into what later became Whiteshell Provincial Park, to lakes such as Lonepine Lake to harvest rice. After the rice harvest, they would travel by the C.P.R. line back to Kenora to sell their rice and purchase supplies for the fall. They would then travel by canoe back to Shoal Lake as there was no road connecting the Trans-Canada highway to Shoal Lake until 1965. Once back at Shoal Lake, the children would go to residential school while the rest of the family would head out to the trap line.

The bounty of the blueberry landscape and livelihood in northwestern Ontario came to an end with the advent of the Second World War. By the late 1930's a road had been built into Redditt, and blueberries began to be shipped by truck. The biggest period of blueberry shipment by truck occurred during the war when freezer trucks would travel to Redditt to obtain blueberries from the Duggans. As told by John Duggan and Larry Maki,

these trucks were buying up blueberries for the United States Navy. With the advent of the Second World War, the United States Navy lost access to their source of blue dye. Blueberries provided a North American source of blue dye which was readily accessible. The use of blueberries as a dye was well known to the Anishinaabe people who utilized it for dying porcupine quills and other materials. Following the Second World War, the era of large commercial harvests of wild blueberries faded into history. By 1955 the only mention of blueberries in the Kenora Daily *Miner and News* was that it seemed to be a good year for blueberry picking and making pies.

Competition from the developing industry on the east coast and lack of labour following the war may explain the loss of the commercial blueberry industry from northwestern Ontario. However, another explanation was the loss of the blueberry heaths generated by fire. The post-war period saw dramatic improvement in fire fighting technology. By 1935 radios had been deployed in fire fighting. This development allowed patrol planes to radio fire ranger crews who could extinguish a fire before it grew to a large size. While railways may have started fires, they were also useful to quickly gain access to fires. As the logging road network was built, this also provided quicker access to fire starts. By the end of the war an efficient system of fire management had been established. Planes were able to deploy men to isolated fire starts before they grew to huge conflagrations. The success of this system can be seen from the fire data that shows a disappearance of large fires (>200 ha) from the northwestern Ontario landscape during the 1940's, 1950's, 1960's and 1970's (Ontario Forest Research Institute 1998).

The result was that large fires were pushed north and into areas that were not easily accessed by permanent road. As helicopters and water bombers were integrated into the fire management system the size of fires, as demonstrated in the fire data, decreased. This was more noticeable in areas like the Lake of the Woods watershed, which had extensive road networks, easy access to fire starts by water, and were heavily populated. In the post-war period there were only a few fires greater than 200 hectares, the most recent of which was in 1980. The landscape of northwestern Ontario became that of an industrial logging-scape. The use of fire management to restrict large fires was undertaken to protect property and timber. As a result, the most frequent disturbance in the landscape was a logged out clear cut. In recent years, the only large blueberry fields have been those created by industrial logging clear-cut on sandy soils and a small number created by fires started on rocky land.

Conclusion

Cultural landscapes come about through interactions between societies, environments and resources. This is a complicated way of saying that cultural landscapes emerge from the resource management systems of different societies. As different societies become dominant, different cultural landscapes emerge. In the historical review of the cultural landscapes of northwestern Ontario it is possible to see how managerial ecology slowly, but steadily, displaced an indigenous system of resource management. Managerial ecology attempted to displace Anishinaabe people from the land and the social, cultural and economic institutions of northwestern Ontario.

The result was remnant patches of the indigenous cultural landscape that could be found in the interstices of the cultural landscape of managerial ecology. Examples of these patches are described in Davidson-Hunt (2003) and include wild rice fields, maple stands, blueberry fields, oak savannas (*Quercus macrocarpa*), garden islands, hay fields, burial sites, pictographs, camping sites and many others. The question which now must be asked is: "What are the possibilities of an alternative resource management system and the restoration of indigenous cultural landscapes in northwestern Ontario?"

The emerging consensus from the interdisciplinary science of resource management is that more attention needs to be paid to place-specific, cross-scale and social-ecological models of resource management. Research networks that have focused on sustainability science (Kates *et al*. 2001) and social-ecological resilience (Berkes *et al*. 2003) have suggested that community-based resource management provides an alternative approach. This model suggests that similar to the subsidiary principle of democratic theory, a larger scale governance institution or organization should never assume responsibilities that can be successfully managed at a smaller scale (Ostrom 1990). Indigenous institutions provide an example of a place-specific and social-ecological model of resource management (Davidson-Hunt and Berkes 2003). Indigenous institutions recognize that indigenous peoples often hold a custodial responsibility for the beings with whom they share their territory (Lane 2002). For many indigenous peoples this principle is based upon a natural, or sacred, law from which their resource management system is derived (Berkes 1999). Recognition of indigenous responsibilities within the context of shared responsibilities of larger scale organizations will be a first step in the development of resource management alternatives. This will then provide the developmental context for novel indigenous land management institutions and organizations (Lane 2002). These restored indigenous resource management systems and cultural landscapes will again provide secure and meaningful indigenous livelihoods.

The developmental context established by indigenous land management institutions and organizations could also allow for a flourishing of novel management practices and technologies. Some of this potential is beginning to appear in the literature as scientists trained in western methods work with indigenous knowledge experts (Striplen and DeWeerdt 2002). For instance, once the scientists of the United States Forest Service recognized the special responsibilities indigenous people have in relation to their lands, along with indigenous land management institutions and organizations, it became possible to work together. Indigenous knowledge experts have worked with scientists to restore Camas Prairies (*Camassia quamash*) and other plant communities. This development of novel technologies and institutions to restore and manage plant communities draws from the cultural landscapes of the past but is an innovative system of indigenous resource management. To date, we have tended to worry too much about "saving" indigenous land-based technologies and information and not enough about the restoration of indigenous land management institutions and organizations. If indigenous peoples are provided with the developmental context to restore land management institutions and organizations then we can expect, and look

forward to, indigenous knowledge experts and scientists to guide a renaissance in novel resource and environmental technologies and management practices.

Acknowledgements

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