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From Expert to Acolyte: Learning to Understand the Environment from an Anishinaabe Point of View

LEANNE R. SIMPSON AND PAUL DRIBEN

INTRODUCTION¹

Indigenous people living in the Americas have been dispossessed of large tracts of land since first contact with Europeans. Whereas some succumbed to the superior military power of the newcomers and others relinquished their territory in treaty negotiations, still others have seen their homelands diminished in favor of large-scale industrial developments, typically without their assent. Most contemporary First Nations consequently retain only small tracts of their aboriginal territory, and this is debilitating since maintaining a relationship with the land is vital to the continuity of each nation's distinct way of life. Despite centuries of colonialism, genocide, and environmental degradation, "being out on the land" remains central to satisfying subsistence needs, preserving community solidarity, promoting the integrity of social institutions, enhancing spirituality, and establishing and maintaining an aboriginal identity.²

Under the circumstances, it is hardly surprising that several First Nations have undertaken cartographic research in order to demonstrate their wide-ranging uses of the land, frequently in conjunction with outside experts who help design and preside over the research.³ In Canada, for example, many First Nations have turned to Western academics to ensure that research design and data collection are undertaken in ways that are acceptable to a scholarly point of view, particularly if the resulting maps are to be used in cross-cultural negotiations or as evidence in legal proceedings.⁴ Yet as productive as this partnership may seem, it inevitably raises a significant methodological problem: how to conduct research in a way that simultaneously satisfies the demands of both

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Location of the Long Lake Indian Reserve #58

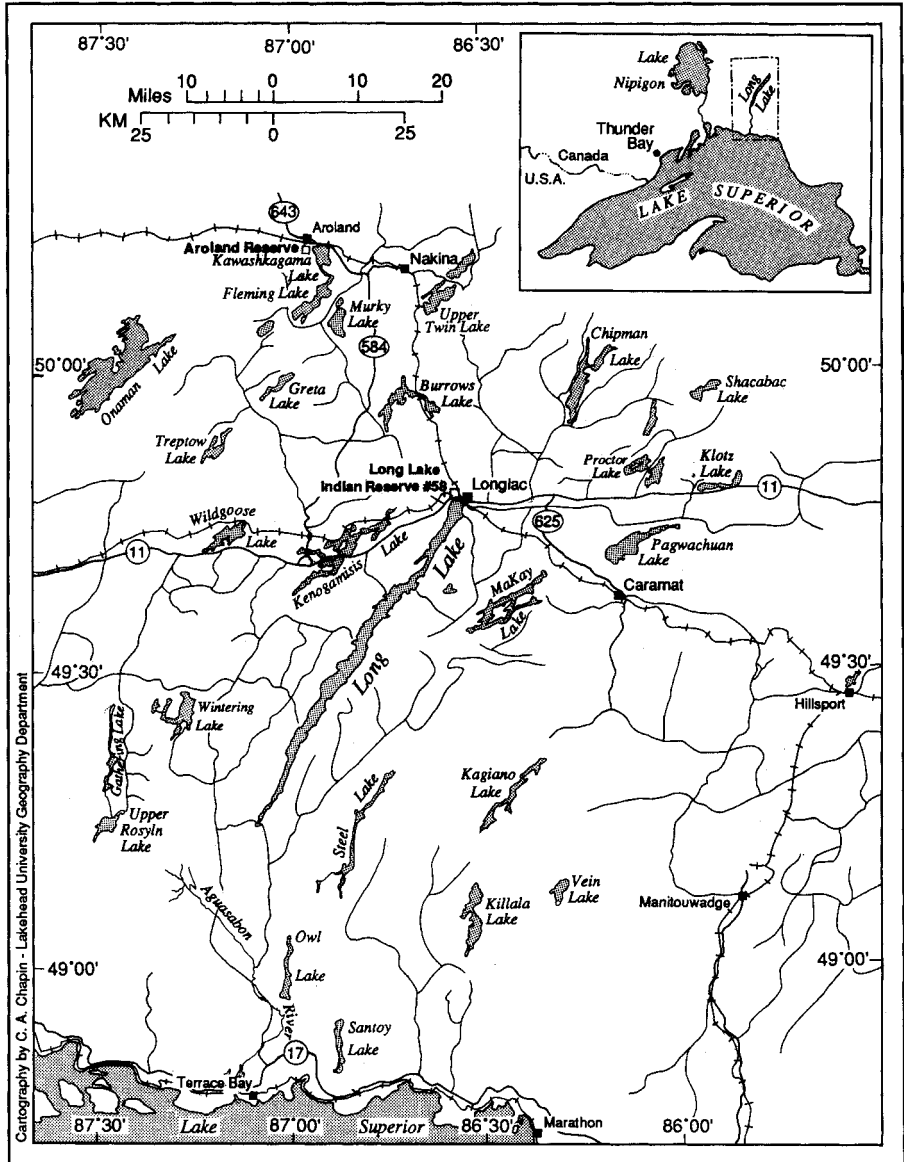


FIGURE 1.

academic and aboriginal communities. The purpose of this paper is to explain how that challenge was met in a recently completed land use study in the Long Lake #58 First Nation, an Anishinaabe (Ojibwa) community of about 400 people who reside in the Long Lake #58 Indian Reserve on the northeastern corner of Long Lake in northern Ontario (see fig. 1)⁵. In order to understand how the process unfolded it is best to first describe the genesis of the research.

This will set the stage for a discussion of the collaborative approach that was employed, and a description of the benefits of undertaking such research in indigenous communities in Canada and abroad.

GENESIS OF THE RESEARCH

The origin of the land use mapping study in the Long Lake #58 First Nation can be traced to a partnership forged in 1991 among Health Canada's Medical Services Branch (MSB), whose "mission is to help the people of Canada maintain and improve their health,"⁶ the Assembly of First Nations (AFN), which "exists to promote the restoration of the nation-to-nation relationship between . . . First Nations . . . in Canada and other nations,"⁷ and sixty-three First Nations communities in the Canadian Great Lakes drainage basin.⁸ The purpose of the tripartite partnership was and is to "blend the knowledge of First Nation[s] people with scientific methodology to understand and document the effects of environmental contaminants on [the] health and well-being" of the aboriginal people in the above mentioned sixty-three communities (see fig. 2).⁹ Known by the acronym EAGLE (Effects on Aboriginals from the Great Lakes Environment), the partnership began its work by launching a series of research projects that focused on how environmental contaminants were affecting the physical health of the people under consideration. These included an eating patterns survey, a contaminants in human tissues program, a health survey, and a freshwater fish and wild game sampling program, all of which were based on the contention that "Aboriginal people consume, on average, a greater amount of fish and wild meat than non-indigenous people," and that since such foods likely contain a significant burden of persistent toxic chemicals, their health is almost certainly at risk.¹⁰

In 1993, based on their longstanding conviction that health is simultaneously a biological and a sociocultural phenomenon, the members of EAGLE's working group launched a sociocultural research initiative to complement their biological research program.¹¹ The purpose of the new research was to help assess the impacts of environmental contaminants on the social and cultural health of the people residing in the sixty-three First Nations communities in the Great Lakes drainage basin and, insofar as possible, to provide those affected with information they could use to develop strategies to ameliorate the adverse effects of those contaminants in the future. This could best be accomplished, the members of the working group concluded, by following the same governing principle that had guided EAGLE's previous research: namely, by combining the knowledge of Western science with the wisdom of First Nations people.¹²

The Long Lake #58 First Nation was one of several communities to embrace the new initiative, and EAGLE responded accordingly. The residents are survivors of severe and continuous environmental degradation caused by non-Native governments, industries, and sundry other non-Native interests. One of the most dramatic changes in their environment occurred in 1938 when the Hydroelectric Power Commission of Ontario—the forerunner of Ontario Hydro—undertook the Long Lake Diversion, which was designed to

First Nations Communities of the Great Lakes Basin

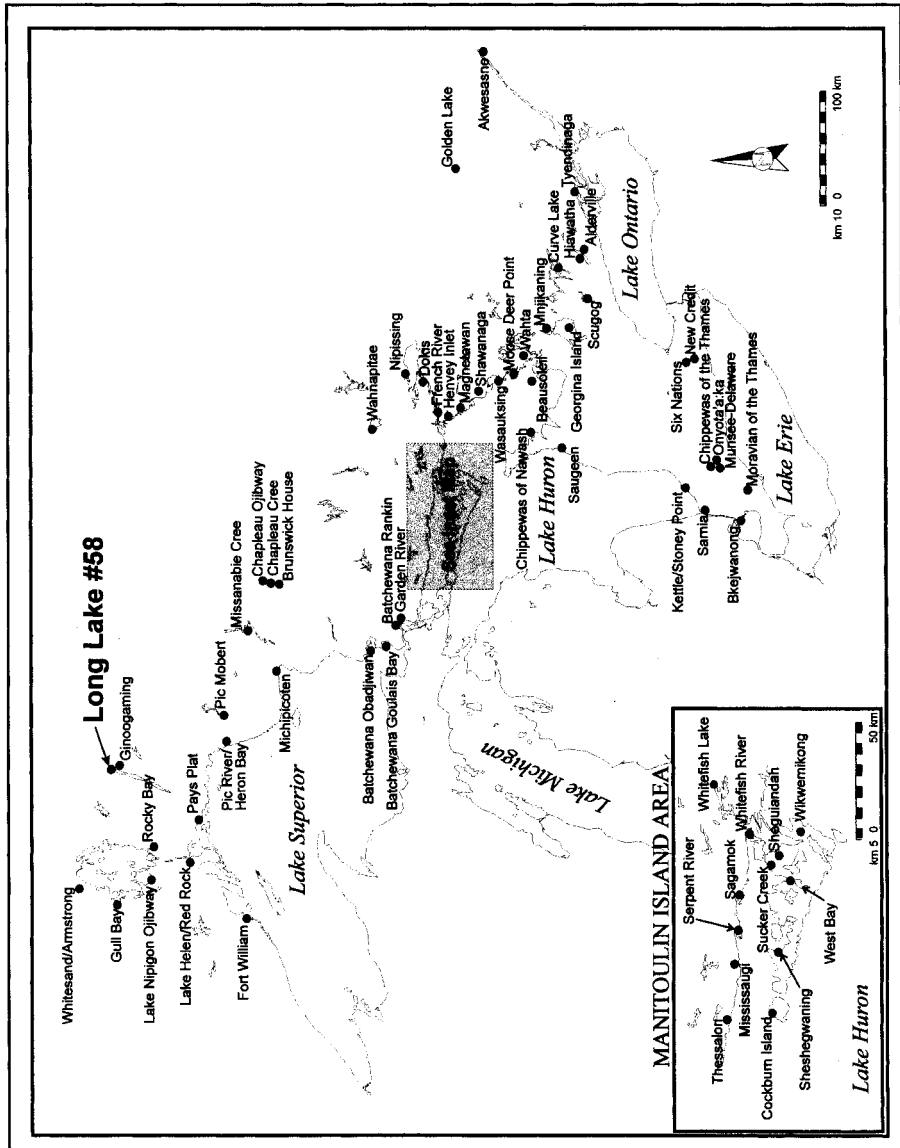


FIGURE 2.

transfer James Bay runoff into the Great Lakes in order to facilitate inter-basin pulpwood transportation and generate power locally and in the Niagara and Saint Lawrence rivers.¹³ The result was a massive construction project that not only transformed the lake that was once the focal point of the lives of the aboriginal people in the region into a huge reservoir containing 138 square kilometers of water, but also reversed the direction of the outflow from north to south.¹⁴ The outcome was predictably devastating: the original shoreline was washed out; fishing became less fruitful; campsites were rendered unusable;

and cemeteries and sacred sites were destroyed. Scarcely a decade later the stage was set for another major change when the Ontario Department of Lands and Forests—now the Ministry of Natural Resources—inaugurated the registration of traplines on Crown lands in Ontario.¹⁵ While the new traplines in the region mirrored traditional family hunting territories, when the traplines needed to be reallocated, usually because of death or ill health, government officials made the decisions, robbing the members of the Long Lake #58 First Nation of the power to decide how best to manage Anishinaabe land. Meanwhile, without community input, several of the traplines the people considered their own ended up in non-Native hands, destroying the integrity of what had been a unified territory since time out of mind.

Pulp and paper companies, too, have had an adverse impact on the environment. While the companies certainly created jobs, including some for the members of the Long Lake #58 First Nation, elders report that over sixty years of persistent cutting has driven away animals and ruined many of the plants they use for medicine and food. They also maintain that spraying cut-over areas with pesticides to allow the companies to improve their yields has done likewise.¹⁶ Yet despite these cumulative pressures, the people of the Long Lake #58 First Nation still regard themselves as caretakers of the land. Like their ancestors, the elders call their reserve *shkonang*, or leftovers. Their true homeland is much larger, a vast expanse of territory where they hunt, trap, fish, gather, and attend sacred sites (see fig. 3).

The residents of the Long Lake #58 First Nation consequently had ample reasons to become involved in the sociocultural component of the EAGLE Project.¹⁷ As part of this component, a land use mapping project was inaugurated in the community in the summer of 1995 in order to construct a cultural atlas, based on traditional knowledge, that could be used to help community members record and assess the historical impacts of environmental change within their traditional homeland. It was also hoped that the atlas would provide community members with a reliable source of information that they could use to help restore the integrity of their environment in the future. More specifically, the goals of the research were: (a) to identify and map the external and, if any, internal boundaries of the aboriginal homeland of the Long Lake #58 First Nation; (b) to identify and map the locations within the homeland where the immediate ancestors and elders of the community acquired the wherewithal to survive; (c) to identify and map the places, structures, and routes associated with current traditional economic endeavors and other important social, cultural, and spiritual activities; and (d) to identify and map locations within the homeland where environmental degradation has and continues to occur.

METHODOLOGICAL CONSIDERATIONS

The Exclusionary Approach

Aboriginal peoples are still reeling from the days when outside “experts” investigated First Nations communities without any thought of involving their

Approximate Aboriginal Homeland of the Long Lake #58 First Nation

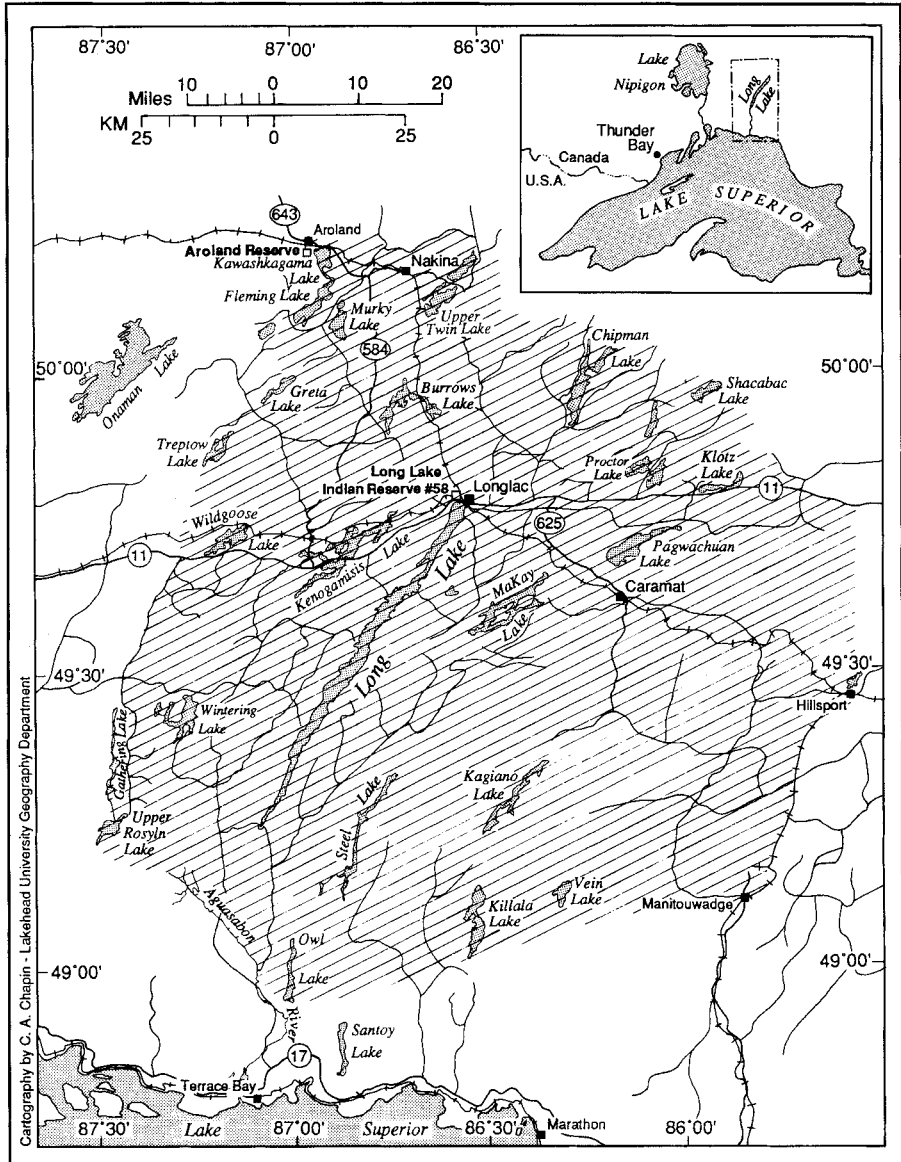


FIGURE 3.

“subjects” in the decision-making processes that governed the work. The logic was self-serving; if the experts relinquished control, they maintained, there could be no guarantee that their research would be “objective,” and that this would negate the results. They were mistaken. What they failed to appreciate was that their insistence on maintaining control reflected their own beliefs and values, which promoted a kind of objectivity in which “[i]nformation is

interpreted and organized in such a way that the views of a small group of people are presented as . . . “The Truth”¹⁸—a dictum that is reinforced to this day through the operations and structure of European-Canadian governments, institutions, and mass media.¹⁹ The problem is that this approach not only promotes European-Canadian interests at the expense of First Nations, but also generates results that are epistemologically unsound.²⁰ Arrogance aside, there is simply no reason to believe that aboriginal peoples are incapable of designing sophisticated research projects and interpreting the results, either within the context of their own theories of knowledge or in the best tradition of Western science. In fact, those researchers who have maintained the monopoly have ironically undermined their own research by adopting a strategy that silences those who possess the greatest insight into the nature of aboriginal culture. As the members of the Research Advisory Committee of the Royal Commission on Aboriginal Peoples recently put it:

In the past, research concerning Aboriginal peoples has usually been initiated outside the Aboriginal community and carried out by non-Aboriginal personnel. Aboriginal people have had almost no opportunity to correct misinformation or to challenge ethnocentric and racist interpretations. Consequently, the existing body of research, which normally provides a reference point for new research, must be open to reassessment.²¹

The problem is all the more serious considering that the disrespect this exclusionary approach has engendered has resulted in an increasingly strained relationship between First Nations peoples, communities, and governments, and the academic community.²²

The Collaborative Approach

In order to combat these problems, a new generation of scholars has adopted a more reasonable strategy. Growing out of attempts to empower the disenfranchised, particularly in the Developing World, they have chosen to adopt a cooperative or collaborative approach based on the principle that the best way to undertake research among the disadvantaged is to build on the strengths of those directly involved, from defining the problem through to designing the research and interpreting the results.²³ The new method is consequently based on the idea that research is best undertaken in an egalitarian atmosphere, *with* rather than *on* people so that everyone contributes to and benefits from the process. As Peter Reason has explained:

The simplest description of co-operative inquiry is that it is a way of doing research in which all those involved contribute both to the creative thinking that goes into the enterprise—deciding on what is to be looked at, the methods of inquiry, and making sense of what is found out—and also contribute to the action which is the subject of the research. Thus in its fullest form the distinction between researcher

and subject disappears, and all who participate are both co-researchers and co-subjects. Co-operative inquiry is therefore also a form of education, personal development, and social action.²⁴

More than lip service is required to achieve this goal; academics must be willing to allow themselves to be transformed from experts into acolytes, to divest themselves of the status and power they possess in their own cultural milieu, to rely on the cumulative cultural experience of a community other than their own, and to participate in and contribute what they can to the evolution of the process. Reason stresses that this approach is an emergent one; that is there is no predetermined framework that governs the inquiry. Rather, the principles are allowed to emerge as the project unfolds.²⁵ While this strategy is appropriate everywhere it is particularly well-suited to aboriginal communities, for emergent learning has long been one of the principal methods that indigenous peoples have employed to understand and cope with the world around them.²⁶ Sharing knowledge, making decisions by consensus, respecting the expertise of others, and taking time to reflect are all fundamental to the aboriginal way of learning. Listening to elders is likewise crucial, for it is they more than anyone else who are responsible for providing “advice and counsel, healing and inspiration, [and] interpretation of the past and present.”²⁷ Among the Anishinaabe, for instance, it has long been recognized that one must pay careful attention to the words that emanate from “the lips of their old men and chiefs who are the repositories of the traditions of the tribe.”²⁸

CONDUCT OF THE INQUIRY

The Elders

It was community elders to whom we were directed when we initially met with the members of Long Lake #58 Band Council. We already had been informed by the working group of the EAGLE Project that band members wished to map culturally strategic locations in their homeland, which the council confirmed in August 1995 when we traveled to the Long Lake #58 Reserve to meet the administrative officers of the band. At that meeting we were asked to explain the difference between land use and harvesting studies—it was the former rather than the latter that was of interest to the council—and to discuss the strategic implications of mapping historical versus contemporary uses of the land. Like the homeland of many other aboriginal communities in Canada, that of the Long Lake #58 First Nation had become more circumscribed in conjunction with the “economic development” of the region. A historical land use study, the council concluded, would demonstrate this fact in a way that government officials and private developers would clearly understand. But such a study would not indicate the ways in which the land is used by Anishinaabe people today: to provide themselves and the members of their community with the wherewithal to survive, to maintain contact with the spiritual entities they live among, and to enjoy simply being “out on the land.” All of this, too, was important and worthwhile to bring forward. But it would not be up to them,

the council said, to determine the scope and nature of the proposed project. The final decision would be made by the elders. The council would approach them on our behalf, we were told, and if the elders were willing a meeting would be arranged.

In September 1995 we met with the elders of the Long Lake #58 First Nation for the first time. About a dozen elders attended the meeting. They had known each other since childhood and had lived their lives in close proximity, usually for the better but sometimes for the worse, and now they were growing old together, having reconciled most of their personal differences. Above all, it was clear that they were well-versed in the history of their community. They held, within living memory, the details of what had transpired during the past half century, and they knew, from what their own elders had taught them, what had occurred before. The persistence of Anishinaabe *ozhichigewin*—the way of the people—and the imposed integration of European ways into their own way of life existed within their individual and collective experience. We also learned that the elders were not only experts on land use, but also wanted to record what they knew about the land: how it had been and was being used by the Anishinaabe; how it had been confiscated and abused by the newcomers; and how important it would always be to themselves and to their descendants. And they wanted to be consulted together, they said, because they could help each other remember, and so, with their approval, we jointly set to work to begin to reproduce on paper the maps that existed in their minds.

The Next Twelve Months

During the next twelve months, as the maps were being drawn, all of those directly involved contributed to the process. We came to the first meeting with a large base map of the region, about 3 meters by 5 meters, composed of several 1:50,000 federal topographical maps, covering an area large enough, we hoped, to include all the territory that the members of the Long Lake #58 First Nation consider their own. We also brought along a handful of colored pencils that could be used to differentiate between the various land use endeavors the elders wanted to record. They, in turn, took charge of making the project a success from an Anishinaabe point of view. Although the elders told us that our joint work “would be finished when it was finished,” they made it clear that it would be best if we met on a regular basis to, on the one hand, demonstrate our mutual commitment to the project and, on the other, capitalize on the momentum that flows from regular and recurrent contact. The consensus was that we should get together about once a month. This would give everyone sufficient time for reflection and discussion between meetings, and would ultimately generate the most accurate representation of our collective thoughts. From the elders’ points of view, each person’s perspective represented a version of the truth; we would need time together and apart to discover how best to amalgamate our individual contributions into a larger, collective truth.²⁹

Although only about a dozen elders attended the first meeting, when we met one month later the number had doubled and subsequently remained the same. The production of the atlas was consequently the joint responsibility of

about two dozen men and women whose wisdom was widely recognized in the community and beyond, and by two researchers, one Anishinaabe and the other European-Canadian. Several times other community members participated in the meetings at the request of the elders, to provide information that could not otherwise be obtained. Time was also made available for younger members of the community to view the emerging maps and comment on their contents. In addition, the elders directed us to other resource people, some currently living in the reserve as well as those who had moved away but were still easily accessible in nearby cities, towns, and reserves. It was consequently the elders who were primarily responsible for identifying contributors and organizing the meetings, most of which were opened with a smudging ceremony and a prayer by the community's senior spiritual leader to help us focus our attention on the task at hand. Then, individually and in groups, according to their inclinations, the elders either directed us to use the pencils to record information on the working map or entered the information themselves. And whenever formal decisions were required, for instance, about whether certain culturally sensitive information should be included in the atlas, the group gathered in a circle, a smudging ceremony took place, and each person spoke until consensus was achieved.

The information the elders provided demonstrated their vast and intricate knowledge of the land. Favorable locations for hunting, trapping, fishing, and gathering were pinpointed with precision, so much so that the fit between their own representations of their traplines and those of the Ministry of Natural Resources were virtually exact. The elders also identified the routes that they and other members of the community use to venture into the wilderness, either to gain access to important cultural landmarks in their homeland or to pass beyond the limits of their territory to enjoy the company of others. Places where cabins and campsites are situated also captured their attention; these are occupied on an intermittent basis in concert with the ebb and flow of the seasons: cabins during the cold weather months and campsites during spring, summer, and fall. The elders also revealed the locations of their sacred places: cemeteries that are visited to honor ancestors and keep their graves in good repair; sites where traditional medicines are made; places where ceremonies are held; and sites where positive and negative energy resides. In addition, the elders identified over 200 Ojibwa place names that the members of the Long Lake #58 First Nation use to identify strategic locations in their homeland.

Beyond the Obvious

Beyond this, the elders spoke with powerful emotions about what untutored observers would almost certainly overlook with respect to the relationship between Anishinaabe people and the land. Their comments on subsistence endeavors, for example, confirmed that climatological, ecological, and ethological knowledge are all part of the intellectual repertoire of those who hunt, trap, fish, and gather, as is their ability to simultaneously assess and adapt to even the most minute changes in their surroundings.³⁰ Dreams are equally important, for if their contents are interpreted properly, these reveal

where natural resource harvests are likely to be found.³¹ Hunting, trapping, fishing, and gathering are consequently best regarded as both a science and an art, capable of providing those who are willing to grapple with their complexity a lens through which the continuity between the past and the present may be seen.

What the elders said about the routes in their homeland was equally informative. These routes are undoubtedly one of the most efficient and effective ways of traveling from one location to another in the safest possible manner. The potential for encountering something unexpected on the land is always present, and the location of the routes takes this into account, whether the danger is ecological or spiritual. There is consequently a cultural logic that dictates where the routes are located, and that logic is based on suppositions that are uniquely Anishinaabe in character. It is because of the validity of this logic, which has proven its worth over the centuries, that the routes are still in use, and it is because of the countless years of experience and experiment that went into the placement of the routes that they have proven to be secure.

We also learned that the campsites and cabins the elders identified are strategically located, properly distanced from sacred sites yet near the natural resources that Anishinaabe depend upon to survive. The campsites and cabins also have sociological significance. There is a joy that the members of the Long Lake #58 First Nation experience when they are out on the land, either individually or in groups, immeasurable but nonetheless real, and it is while they reside in their campsites and cabins that this experience reaches its zenith. It is at these places, too, more than anywhere else, that the integrity of the family comes to the fore. Their campsites and cabins are also important in another respect: their existence proves that the members of the Long Lake #58 First Nation not only make use of their homeland, but also occupy it in conformity with the principles of their culture. While these principles do not provide individuals with exclusive ownership rights—like other Anishinaabe, the members of the Long Lake #58 First Nation hold their land in common—they are a clear demonstration of tenure in the European sense of the term.

The maps likewise proved to be the vehicle through which the elders expressed their views about Anishinaabe *ozhichigewin*, the way of the people. This was particularly true with respect to their comments about their sacred sites. Their cemeteries, they said, remind them of their long occupation of the land; their medicine sites contain the plants they use for curing; and the places where positive spiritual energy prevails reaffirms their covenant with Kitchi Manitou, who bequeathed them their homeland. Yet logic dictates that if there are sacred sites there must be the opposite, and in conformity with this principle there are places within the homeland of the members of the Long Lake #58 First Nation that must be avoided because of what resides there. Such sites include those that contain amorphous negative spiritual energy as well as those that house certain dangerous supernatural entities that manifest themselves in various physical forms. Although there are skeptics who claim that because there is no supernatural world such positive and negative sites cannot exist, the cultural experience of the members of the Long Lake #58 First Nation indicates otherwise. Their philosophical and religious doctrines hold that there is

both good and evil in the world, and the presence of sites that reflect both is a manifestation of the underlying principles of a system of thought.

Finally, the elders reminded us that the French and English names that appear on modern maps of Canada are symbols that bring to mind the historic expansion of Europeans and their subsequent occupation of the land. The aboriginal names that appear from time to time on the same maps, they said, are symbols of a different sort; they remind aboriginal people of a time when Canada was occupied exclusively by themselves. In their own case, the elders said, the names that they attribute to the landmarks in their environment were applied because "something happened there." Whether serious or humorous those events were what inspired the original name-givers, whose recollection of the circumstances that prompted the naming provides those who embrace the system with a formidable mental map. The fact that hundreds of Ojibwa names are used to identify otherwise named and unnamed places is a testament to the comprehensiveness of the system. The fact that the names are still used is a reminder of the Anishinaabes' remarkable geographical skills.

It was shortly after the elders began to discuss the extraordinary significance of their homeland that they asked us to tape record their comments. We complied and, in the end, with their agreement, we relied on these tape recorded conversations to prepare a general introduction to the cultural atlas and separate commentaries highlighting the cultural significance of each map. In the meantime, with the concurrence of the elders we kept the band council and the working group of the EAGLE Project informed about our mutual progress. We also responded to the elders' request to map non-aboriginal uses of their homeland, including logging and the spraying of pesticides. As we had promised, when it came time to transform the information the elders had recorded on the base map into computer-generated images, we worked closely with the cartographer at the Ottawa office of the Assembly of First Nations. After the contents of the computer-generated maps were scrutinized and approved by the elders and the band council, the general introduction and the text accompanying each map were translated into Ojibwa by an elder proficient in phonetic transcription. The end result was a bilingual document titled *A Cultural Atlas of the Homeland of the Long Lake #58 First Nation*.

THE BENEFITS OF COLLABORATIVE RESEARCH

Re-Empowerment

As mentioned earlier, research that is undertaken in aboriginal communities in Canada and abroad frequently serves the interests of outside experts rather than the members of the communities directly involved. At Long Lake #58 the situation was different. In fact, the cartographic and ethnographic information that was generated proved to be empowering to the community in several important respects. For more than a decade the Long Lake #58 First Nation has been pursuing a land claim against the government of Canada. Based on the contents of the ethnohistorical record, the band maintains that its ancestors were not party to the Robinson Superior Treaty, which was made in 1850

between the Crown and the Ojibwa who were living south of the height of land on the north shore of Lake Superior.³² The Long Lake #58 First Nation consequently claims that it possesses an aboriginal title to the land that its members consider their own. Although the cultural atlas was not designed to speak to this issue directly, band officials are confident that its contents will buttress their claim.

The contents of the atlas also enabled the community to establish a permanent record (in both Ojibwa and English) that identifies sites where prominent cultural landmarks are located and where important cultural endeavors are performed. While this documentary record cannot and should not be regarded as a substitute for the oral tradition that Anishinaabe rely upon to transmit information from one generation to the next, the consensus among the elders is that the maps they produced are ideally suited to help community members protect the integrity of their environment and thereby their way of life. Identifying where a sacred site is located, for example, may prevent that site from being destroyed, and identifying areas in which game and fish are pursued may better protect those areas from environmental degradation. Whether or not the maps can be used to help rehabilitate areas in their homeland that have been subject to environmental degradation in the past remains to be seen. That, the elders say, depends not only on the members of their own community, but also on those they live among. On the other hand, they are convinced that were it not for the cultural atlas such a goal would be impossible to achieve.

A Timely Project

Another positive feature of the research was that it was timely. The fact that band officials expressed an early interest in the project and that elders were eager to participate indicates as much. And they had good reason to participate, for conflicts over lands and resources between aboriginal and non-aboriginal peoples have never been more intense. There are, for instance, those who insist that the pursuit of game and fish by people such as those living in the Long Lake #58 Reserve will inevitably result in the destruction of sport hunting and fishing. One such claimant is Shimano Canada Ltd./Ltee, a Canadian subsidiary of a giant multi-national sport fishing equipment manufacturer. On 10 May 1991 the director of Shimano Sport Fisheries Initiative wrote a letter to dealers who stock Shimano products warning them that so-called "native groups" pose an imminent threat to both their own retail businesses and their non-Native customers' right to enjoy sport fishing. Part of that letter reads as follows:

As you may be aware, currently there is NO law enforcement being applied to native people (folks with 1/64th native family heritage) for fish harvest limits, seasons, or methods of harvest (including gill nets, trap nets and spearing), on Crown waters in Ontario. Recently, serious commercial harvest violations and netting of spawning walleye in fish sanctuaries by native people have been permitted. Conservation

officers have been ordered not to proceed with law enforcement investigations and prosecution in several such incidents across Central and Northern Ontario.

Our position is that ANY unlimited harvest of any natural resource is absolutely unacceptable, irregardless [sic] of which special interest group is served. The fishery will not withstand such pressure.³³

Given such extreme views there could be no better time to construct a cultural atlas that identifies the traditional homelands of Anishinaabe communities such as the Long Lake #58 First Nation.

What the atlas makes clear, above all else, is that the Anishinaabe have a deep and abiding respect not only for the land, but also for the resources that lie therein. It could not be otherwise, the elders say, not simply because they are the caretakers of the land, but because they know that if they abuse the natural resources harvests that sustain them as a people their health and well-being will suffer.

Illness and Wellness

The finding that illness and wellness are a function of interaction with a healthy environment is likewise one of the strengths of the project.³⁴ One of the major theoretical findings that emerged during the course of our collaboration was that the Anishinaabe possess a fundamentally different view of the relationship between human beings and their surroundings than their European-Canadian counterparts, one that is based on a philosophy that simultaneously promotes the integrity of the environment and the well-being of those who reside there. Above all, that philosophy is based on the principle that the plants, animals, and minerals which coexist with humankind must be treated with the utmost respect. It would, for example, be unconscionable for an Anishinaabe to take more from the environment than necessary to maintain a moderate, satisfactory living. It would be equally disrespectful not to share what is taken from the land for subsistence. In fact, from the point of view of the Anishinaabe, the plants, animals, and minerals in their environment are best regarded as persons in their own right, non-human but intellectually and emotionally identical to humankind. They also say that treating these non-human persons with respect encourages the persons to behave likewise, and that the humans who are so honored are bound to enjoy physical, mental, and spiritual good health. They also say the opposite: that the failure to treat non-human persons with respect can have dire consequences, including disease and ill-health.³⁵

The physical, mental, and spiritual illnesses from which the Anishinaabe now suffer, the elders of the Long Lake #58 First Nation maintain, attest to the validity of this proposition. In order to restore the health of their community, they add, changes must be made. Where access to the environment has been denied it must be restored; where environmental degradation has occurred it must be repaired; and where the elders currently use the environment for economic, social, cultural, and spiritual purposes, those uses must be guaranteed,

for themselves and for their descendants. Otherwise their health and the health of their communities will continue to be held hostage by a philosophy that places First Nations principles last when it comes to ideas about wellness and illness and the proper relationship between people and their environment. Although the elders recognize that the philosophy of the majority cannot be changed over night, they insist that the newcomers understand that Western philosophy is by no means universal, that the philosophy of the Anishinaabe people who live in the Great Lakes drainage basin has much to offer those who seek to better understand the relationship between people and their environment, and that healthy aboriginal communities are, above all, a product of access to a healthy environment.

CONCLUSION

In her paper "Bridging Native and Western Science," Pam Colorado stresses the need for a "bicultural research model or scientific infrastructure recognizing both Indian science and western science" in which "collaborative and experiential research and the framework of participatory research can be drawn upon to complement or meet Native science and culture."³⁶ This is what took place during this project. A collaborative and participatory research model was employed to dismantle the traditional power structure that almost always exists between researchers and their subjects, and the reliance on emergent principles allowed Anishinaabe concepts and knowledge to come to the fore. Although such an approach may be novel from a Western point of view, anyone who understands how aboriginal cultures come to "know" a problem will immediately recognize the striking similarity between the collaborative or cooperative approach and indigenous ways of thinking, learning, and knowing. In fact, a large part of the success of this project lies in the fact that, aside from ourselves, the collaborative group that was primarily responsible for the production of the atlas already existed in the community. The elders were a group who met regularly when there was a specific issue for them to discuss or address. They already had a strong affinity and history of working together in the bush and in the boardroom. Their commitment to each other and to their community quickly translated into a commitment to the mapping project, understandably so since collaboration is one of the principles on which Anishinaabe culture is based. The elders' cultural skills, in other words, readily crossed over to the collaborative research group. In our view, relying on these skills is a requisite for reconciling aboriginal and Western ways of understanding, as is the willingness to be transformed from expert into acolyte.

NOTES

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2. Cf. Paul Driben, *Living off the Land in the Whitesand Indian Band: The Economic, Social, Cultural, and Spiritual Importance of Subsistence Endeavours in a Contemporary Northern Ojibwa Community* (Toronto: Ontario Hydro and the Whitesand Indian Band, 1993); John S. Matthiasson, *Living on the Land: Change among the Inuit of Baffin Island* (Peterborough, Ontario: Broadview Press, Ltd., 1992); George Wenzell, *Animal Rights Human Rights: Ecology, Economy and Ideology in the Canadian Arctic* (Toronto: University of Toronto Press, 1991); Margaret A. Wheatley, “Aboriginal Health and the Environment,” *Arctic Medical Research* 53:2 (1994): 265–267; Margaret A. Wheatley, “The Importance of Social and Cultural Effects of Mercury on Aboriginal Peoples,” *Neurotoxicology* 17:1 (1996): 251–256; Christopher T. Vecsey, “Grassy Narrows Reserve: Mercury Pollution, Social Disruption and Natural Resources,” *American Indian Quarterly* 11 (1987): 287–314; and Anastasia Shykilnk, *A Poison Stronger Than Love* (New Haven: Yale University Press, 1985).

3. Hugh Brody, *Maps and Dreams: Indians and the British Columbia Frontier* (Vancouver: Douglas and McIntyre Ltd., 1981); Derek Denniston, “Defending the Land with Maps,” *World Watch* (January–February 1994): 27–31; Peter Poole, *Indigenous Peoples, Mapping, and Biodiversity Conservation: An Analysis of Current Activities and Opportunities for Applying Geomatics Technologies* (Landover, Maryland: Corporate Press, 1992); Dennis Wood, *The Power of Maps* (New York: Guilford Press, 1992); and Christopher T. Vecsey and Robert W. Venable, eds., *American Indian Environments: Ecological Issues in Native American History* (Syracuse: Syracuse University Press, 1980).

4. Tony Hoare, Chris Levy, and Michael P. Robinson, “Participatory Action Research in Native Communities: Cultural Opportunities and Legal Implications,” *The Canadian Journal of Native Studies* XIII:1 (1993): 42–68.

5. The land use maps are not included in this manuscript because they are the property of the community of Long Lake #58 First Nation. The information gathered in this project is protected under an information sharing agreement between the Assembly of First Nations’ EAGLE Project and Long Lake #58 First Nation in order to insure that the intellectual property rights of the community are respected. The purpose of this paper is not to review the results of the mapping project, but to discuss the research process and the relationship between academic researchers and aboriginal peoples.

6. “Health Canada,” [<http://hpb1.hwc.ca/links/english.html>], 15 January 1997.

7. Assembly of First Nations, “Description of the Assembly of First Nations,” [<http://www.afn.ca:80/afndesc.htm>], 15 January 1997.

8. Assembly of First Nations/Health Canada, *EAGLE Project: Annual Report 1995–1996* (Ottawa: Assembly of First Nations/Health Canada, 1996), 8.

9. *Ibid.*

10. Beverly Bird, "The EAGLE Project: Re-mapping Canada from an Indigenous Perspective" *Cultural Survival Quarterly* (Winter 1995): 23; and Brian Wheatley, "A New Approach to Assessing the Effects of Environmental Contaminants on Aboriginal Peoples," *Arctic Medical Research* 53:2 (1994): 386–390.

11. The working group, which is "composed of EAGLE Project staff, officials from Health Canada and technical staff, representatives from First Nation communities, and independent consultants . . . is responsible for development of the study framework, research methodologies, data analysis and reports" (Assembly of First Nations/Health Canada, *The EAGLE Project Annual Report*, 15).

12. Cf. Pam Colorado, "Bridging Native and Western Science," *Convergence* 21:2/3 (1988): 49–68.

13. J. C. Day, "A Review of the Biophysical and Socio-Economic Impacts of Selected Diversions: the Ogoki, Long Lake, Churchill-Nelson, James Bay, and Garrison Examples," in *Futures in Water: Proceedings, Ontario Water Resources Conference*, ed. Anonymous (Toronto: Government of Ontario Printing Office, 1985), 62–89.

14. [Hydro Electric Power Commission of Ontario], "The Ogoki Saga," *Inland Seas* 4:1 (1948): 17.

15. Ontario Ministry of Natural Resources, *Fur Management in Ontario* (Toronto: Ministry of Natural Resources, n.d.), [2].

16. Tony Hall, "Blockade at Long Lake 58," in *Rebirth: Political, Economic, and Social Developments in First Nations*, ed. Anne-Marie Mawhiney (Toronto: Dundurn Press, Ltd., 1992), 79.

17. The EAGLE Project will be completed in January 2000. In September 1999, the responsibilities of the Assembly of First Nations in the project were assumed by the Chiefs of Ontario.

18. Sandra Kirby and Kate McKenna, *Experience, Research, Social Change: Methods from the Margins* (Toronto: Garamond Press, 1989), 15.

19. Bill Lee, "Colonization and Community: Implications for First Nations Development," *Community Development Journal* 27:3 (1992): 212.

20. Kirby and McKenna, *Experience, Research, and Social Change*.

21. Royal Commission on Aboriginal Peoples, *Report of the Royal Commission on Aboriginal Peoples*, vol. 5: *Renewal: A Twenty-Year Commitment* (Ottawa: Canada Communication Group, 1997), 325.

22. Cf. Winona LaDuke, "Traditional Ecological Knowledge and Environmental Futures," *Colorado Journal of International Environmental Law and Policy* 5 (1994): 127–148, *passim*; and Wheatley, "A New Approach."

23. Bud Hall, "Knowledge as a Commodity and Participatory Research," *Prospects* 9:4 (1979): 393; Bud Hall, "Participatory Research, Popular Knowledge and Power: A Personal Reflection," *Convergence* 14:3 (1981): 7; Cathy Kurelek, "Anthropological Participatory Research Among the Innu of Labrador," *Native Studies Review* 8:2 (1992): 76; Pablo Latapí, "Participatory Research: A New Research Paradigm," *The Alberta Journal of Educational Research* xxxiv (September 1988): 310; and Wheatley, "A New Approach."

24. Peter Reason, introduction to *Human Inquiry in Action: Developments in New Paradigm Research*, ed. Peter Reason (London: Sage Publications Ltd., 1988), 1.

25. Peter Reason, "The Co-operative Inquiry Group," in *Human Inquiry in Action*, ed. Reason, 19.

26. Aboriginal academics are beginning to employ variations on these collaborative and aboriginal research methods in their work. For examples, see Leanne R. Simpson, *Traditional Ecological Knowledge: Issues, Insights, and Implications* (Ph.D. diss., University of Manitoba, 1999); Dawn Martin-Hill, *Lubicon Lake Nation: The Spirit of Resistance* (Ph.D. diss., McMaster University, 1995); Kurelek, "Anthropological Participatory Research"; Marlene Brandt Castellano, "Collective Wisdom: Participatory Research and Canada's Native People," *Convergence* xix:3 (1986): 50–53; and Colorado, "Bridging Native and Western Science." Examples of collaborations between Native and non-Native researchers include Joan Ryan and Michael P. Robinson, "Implementing Participatory Action Research in the Canadian North: A Case Study of the Gwich'in Language and Cultural Project" *Culture* 10:2 (1990): 57–71; and Dene Cultural Institute, *Traditional Dene Environmental Knowledge: A Pilot Project Conducted in Fort Good Hope and Colville Lake, NWT, 1989–1993*, prepared by Martha Johnson and Robert A. Ruttan (Dene Cultural Institute, Hay River, NWT, 1994).

27. Joseph E. Couture, "The Role of Native Elders: Emergent Issues," in *Visions of the Heart: Canadian Aboriginal Issues*, eds. David Alan Long and Olive Patricia Dickason (Toronto: Harcourt Brace and Company Canada, Ltd., 1996), 43.

28. William W. Warren, *History of the Ojibway People* (St. Paul: Minnesota Historical Society Press, 1984), 26. As Theresa S. Smith has pointed out: "You do not become an elder . . . because you have reached a certain age but because people see that you are 'living right.' Thus not all elderly people are elders and some extraordinary middle-aged persons are, in fact, included in this honored group" (Theresa S. Smith, *The Island of the Anishinaabeg: Thunderers and Water Monsters in the Traditional Ojibwe Life-World* [Moscow, Idaho: University of Idaho Press, 1995], 180).

29. Murray Sinclair, "Aboriginal People and Euro-Canadians: Two World Views," in *Aboriginal Self-Government in Canada: Current Trends and Issues*, ed. John H. Hylton (Saskatoon, Saskatchewan: Purich Publishing, 1994), 27.

30. Cf. Bruce Winterhalder, "Boreal Foraging Strategies," in *Boreal Forest Adaptations: The Northern Algonkians*, ed. Theodore Steegmann, Jr. (New York: Plenum Press, 1983), 201–241; and Jackie Wolfe, Chris Bechard, Petr Cizek, and David Cole, *Indigenous and Western Knowledge and Resources Management System* (Guelph, Ontario: University of Guelph, University School of Rural Planning and Development, 1992).

31. Cf. A. Irving Hallowell, "The Role of Dreams in Ojibwa Culture," in *The Dream and Human Societies*, eds. G. von Gruenbaum and R. Callois (Berkeley: University of California Press, 1966), 456.

32. Canadian Government, "Copy of the Robinson Treaty Made in the Year 1850 with the Ojibewa Indians of Lake Superior Conveying Certain Lands to the Crown" (Ottawa: Queens Printer and Controller of Stationary, 1964), 3.

33. Phil Morlock, News Release, Shimano Sport Fisheries Initiative (letter to dealers), 10 May 1991, unpublished.

34. Brody, *Maps and Dreams*; Denniston, "Defending the Land with Maps"; Peter Poole, *Indigenous Peoples, Mapping, and Biodiversity Conservation*; and Wood, *The Power of Maps*.

35. A. Irving Hallowell, *Culture and Experience* (New York: Schocken Books, 1955), 252; Thomas W. Overholt, and J. Baird Callicott, *Clothed-in-Fur and Other Tales: An Introduction to an Ojibwa World View* (Maryland: University Press of America, 1982), 155; Adrian Tanner, *Bringing Home Animals: Religious Ideology and Mode of Production of the Mistassini Cree Hunters* (London: C. Hurst & Company, 1979), 152; and Wheatley, "The Importance of Social and Cultural Effects of Mercury on Aboriginal Peoples."

36. Colorado, "Bridging Native and Western Science"; Wheatley, "A New Approach to Assessing the Effects of Environmental Contaminants on Aboriginal Peoples."