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PASSING ON OJIBWAY LIFEWAYS IN A CONTEMPORARY ENVIRONMENT

1.0 Introduction

At the Berkeley IASCP conference held in 1996, Benjamin Orlove concluded his presentation with the statement that "It may seem quite a leap from the management of common-property fishing territories to native language radio. But I think it's a leap worth making" (Orlove 1996). It is a leap that the Grassy Narrows Education Authority and The Taiga Institute for Land, Culture and Economy also thought worth making when we came together to develop the demonstration CD-ROM we are presenting to-day.

This demonstration CD-ROM is the first step in a project to develop culture and language curriculum based on the commons culture and knowledge of the Grassy Narrows people. One objective in the development of the demonstration CD-ROM, was to work toward a participatory methodology for the collection of culture and language materials. This collection process was integrated into the task of solving technological "glitches" related to the presentation of the collected material.

The next step of the project, which has not yet begun, is the collection of a comprehensive base of further materials from the customary knowledge tradition of Grassy Narrows people which covers all of their "heavy use" ancestral land base. It will include the production of mini-documentaries and the development of a language database as well as classroom teaching guides. Details of this process can be found in section 4.0. of this presentation.

To understand the link between a native language education CD-ROM and the common-property system of Grassy Narrows people it is necessary to have some understanding of the

context out of which the CD-ROM has emerged. In discussing this issue our purpose is not to produce a theoretical paper but to reflect on various aspect of the process we went through which has led to the demonstration CD-ROM we are presenting to-day.

For the Grassy Narrows people, the CD-ROM emerges out of deep histories of intimate attachment to the Canadian land. The multi-media CD-ROM technology offers a way for Grassy Narrows people to use widely used and accessible technology to express their depth of knowledge of their ancestral lands. It allows them to do this from an indigenous cultural perspective that is of value not only to their children but to all people. The Grassy Narrows land-based culture, as it is known from the perspective of the people who live it, provides not only the basis of cultural and language teaching material for the local school but merits wider attention. The Chief of Grassy Narrows, Mr. Bill Fobister, has expressed the band's understanding of the CD-ROM project in the following way (translated from his Ojibway statement which is on the demonstration CD-ROM):

"Poozho, My name is Wiinskii. My clan is sturgeon. The community we live in is called Asabskoshiwagaang (Grassy Narrows), and I was born and raised here. This is where my ancestors originated.

This language we speak, the Ojibway language, it is in danger. We could lose it. That is why we are trying to sound the alarm to obtain assistance and funding to educate our youth.

A lot of the language is lost and we are utilizing our elders to teach the dialect we speak here in Grassy Narrows. When I travel to various communities the dialect is different, therefore we want to teach our children, grandchildren and great grandchildren the language we speak here in Grassy Narrows. We are trying to capture and maintain the language.

What we want to do is teach our youth the Ojibway place names for lakes, rivers, wildlife and everything that has an Ojibway name. The school we have now goes up to grade twelve and things are going well, that's why we are hoping to obtain funding to educate our people here.

We are grateful to be a part of this land, where the Creator placed us, to survive and live.

We are seeking funds to assist us to reach and fulfil our goals. We are not doing this for ourselves but for our children, grandchildren, great grandchildren and for future generations that will dwell here in Asabskoshiwagaang. We love our land.

That is all I have to say and I would like to thank you. I am the current Chief. I have been Chief for five years. My great grandfather Sakatcheway was his name, he was the one to sign the Treaty of 1873 which still exists today. Thank You."

2.0 The Context

Language, culture, land and history are intimately inter-twinned from the perspective of the Grassy Narrows Ojibway. A brief overview of their history is important to understand the desire coming from the community to develop language materials and create an Ojibway immersion program within the school.

2.1 The Community

The community known as Grassy Narrows is located on the English River, 160 miles east of Winnipeg in the province of Ontario, Canada. The present day Grassy Narrows reserve had its beginnings in 1963. In that year, the Federal Government through the Department of Indian Affairs re-located the people to a new reserve which was serviced by a road. However, this was only one move in a long historical process of settlement.

To the Grassy Narrows people, their home has always been on the English/Wabigoon River system. However, some people retain a distant cultural memory of the Ojibway migrating westward generations ago. By the 1800's, the Northern Ojibway, or Anishinaabe, were located in Northwestern Ontario and organized into small, mobile, clan based family groups. These family groups focused on trapping and trade with either the Hudson Bay Company or the Northwest Company. Mobility allowed them to move to where game was plentiful and to associate with whichever Company was offering better prices for the furs. Through a complicated process of changing patterns of social organization and technology the Anishinaabe began to associate more and more with specific trading posts. Trading posts were established at or became the locations of summer gatherings for many families. Trapping was undertaken in the winter by smaller family groups.

Grassy Narrows families tended to gather at the main trading post on Lac Seul or the smaller outposts situated in the English River region. In 1873, these families were represented by Chief Sah-katch-eway when the North-West Angle Treaty, also known as Treaty No. 3, was signed. Several family groups represented by Chief Sah-katch-eway were given two reserves in 1882. One was located near the current reserve at Grassy Narrows and the other was located at Wabauskang.

After the signing of the Treaty people still maintained the pattern of winter trapping with summer gatherings near a trading post. The Hudson Bay Company, in 1911, established a trading post at the old reserve of Grassy Narrows. However, according to stories remembered by the elders, the main gathering site seems to have been Wabauskang. This changed when an influenza epidemic hit Wabauskang in 1919 and is said by Elders to have killed many people. The only survivors are said to be the families who were still on their traplines when the epidemic hit. The Chief of the time, Charles Pierrot, decided that the remaining people should move away from Wabauskang, which was cursed, to the site of the old Grassy Narrows reserve which was sacred ground. The Grassy Narrows people of to-day consider themselves to all be from one of the ten families which survived the influenza epidemic.

The way of life of the Grassy Narrows people during the early 1900's revolved around a seasonal round of livelihood activities defined by the annual lunar cycle. Some of the main activities were trapping in the winter, waterfowl hunting, fishing and planting gardens in the spring, blueberry gathering in mid-summer, garden harvesting in August, wild rice harvesting, tending and planting in September and moose and deer hunting in the fall.

Certain activities were undertaken by smaller family groups while other larger gatherings and celebrations occurred during blueberry and wild rice harvesting times, for example. At other times, people tended to live in family groups and maintain separate family enclaves even on the reserve. By the early 1900's, however, the family cohesion in these activities was beginning to break down as some children were taken away to residential schools. However, Grassy Narrows

people point to the forced re-location to the new Grassy Narrows reserve as one of the key events which led to a break down of their land-based livelihoods.

The Grassy Narrows families were re-located to the current site of the Grassy Narrows reserve in 1963 by the Department of Indian Affairs office in Kenora. The new reserve is located five miles south-east of the old reserve. It is accessible via the Jones logging road which runs north from Kenora, the nearest regional centre, which was the main reason given for the move. The old reserve is located on the English-Wabigoon river but is not road accessible. Road access was said to allow the Federal Government to provide Grassy Narrows people with modern conveniences such as medical attention, social services, electricity, water, sewage and decent housing. And of course an on-reserve school was part of the strategy to replace the residential school system.

2.2 The School

The operation of the Sakatcheway Anishinabe School, named for Chief Sakatcheway who was a signatory of Treaty # 3, is overseen by the Grassy Narrows Education Authority (G.N.E.A.). The G.N.E.A. is composed of six board members and a director of education chosen by the community. The school has a total of 266 students in both elementary and secondary programs and a staff of 40 people. In addition to elementary and secondary programs the school also offers Adult Alternative Education. It is developing an Ojibway Language Immersion Program and it offers a Post-Secondary Sponsorship Program. The school has recently obtained a modern computer laboratory with 21 computers and has extensive recreational facilities. However, it has been a long process to arrive at this current form of the school.

The 1876 Indian Act provided the Federal Government of Canada with the legislation necessary to establish Indian Reserves and the power to override decisions of Chief and Council regarding Indian Peoples. Soon after, the Federal Government established the residential school system and required Indian children to attend school. During the period from 1876 to the 1970's many Grassy Narrows people attended the McIntosh Indian Residential School located at McIntosh, Ontario.

The arrival of missionaries in the 1920s provided Grassy Narrows people with their first school which was located within the community and their first Christian congregation. The school house and congregation moved with the People from the old reserve to the new reserve in the 1960's. The school house has now become a church pastored by a Grassy Narrows resident.

During the 1950's and early 1960's, the Federal Government applied intensive pressure on the Grassy Narrows people encouraging them to move their reserve to a new reserve location which was serviced by a road. In return, the government would provide the people with all the modern conveniences and a new school on reserve. The first school on the new reserve opened in 1960 (now the band office) and was operated by the Indian Affairs office in Kenora, Ontario. The Superintendent of Education was an Indian Affairs employee and was responsible to hire the principal, teachers and set the curriculum that would be taught. Although children entered the school speaking only Ojibway, the teaching was all done in English. Grassy Narrows people accepted this format as it was felt that the community needed capability in the English language to communicate with the "outside" world.

The National Indian Brotherhood (now Assembly of First Nations) negotiated a policy with the Federal Government in 1972 which was called "Indian Control of Indian Education."

This led to a Federal devolution policy of control over Indian education to local communities. The policy was not implemented by Grassy Narrows until the early 1980's. At that time, the community decided to get involved in local education decision-making by establishing a School Committee to advise the Principal and the Superintendent of Education. In 1985, the Chief and Council passed a resolution to authorize the local School Committee to begin negotiations with the Federal Government to take control of the education system at Grassy Narrows.

The Grassy Narrows Education Authority took over the administration of education in 1986. The first task was to build a new school as the old school was unattractive and unsafe. The old school burnt down one summer allowing for a new school to be built which was opened in 1995. Over the history of the school the most striking change has been among the children entering the school. In 1960, all the children who entered the school only spoke Ojibway. The children who will enter the school this fall will only speak English. The challenge for the Grassy Narrows Education Authority is how to provide students with an education that will allow them to live fulfilling lives in their contemporary context while connecting them with their linguistic and cultural heritage to provide a sense of rootedness.

2.3 The Participants

2.3.1 Grassy Narrows Educational Authority

The present situation of Grassy Narrows First Nation people is one in which the youth of the community spend much of their year in school. As with non-aboriginal youth this can mean 6 hours/day, 5 days/week and 9 months/year. The number of youth in Grassy Narrows who can speak their Ojibway language has decreased from virtually 100% twenty-five ago to a minority of the youth of the current generation. Further, the majority of Grassy Narrows youth no longer go "out on the land" to trap, hunt or gather plants. This has resulted in a situation where the youth have become fragmented from the customary knowledge tradition of their own community. With each passing year they know fewer of the place names of their territory and the stories associated with them. With this loss they are also losing the capacity to use the Ojibway language to describe the land-based Ojibway way of life as their elders know it. Their mental and cultural maps have been formed by the reality of the new reserve, a history of forced re-location, mercury poisoning, suicide, sniffing and other problems which have emerged over the past 30 years. Being in the community and in school for most of the year, they are not learning the richness of their culture in terms of Ojibway knowledge of the land or the Ojibway language. This has resulted in a type of rootlessness or disorientation.

Presently, the students in the school at Grassy Narrows learn about aboriginal culture from texts and other teaching resources which have not been developed by Grassy Narrows people let alone any other First Nation people. Furthermore, all of these resources are in the English language. This means that First Nation schools like the one at Grassy Narrows are not yet serving the key responsibility of providing Aboriginal children and youth with a sense of place through the systematic teaching of indigenous history, knowledge and language.

The Grassy Narrows Education Authority is acutely aware of these factors. As a board empowered by the Grassy Narrows First Nation with responsibility for the education of Grassy Narrows children and youth, the Grassy Narrows Education Authority (GNEA) has committed itself to addressing these factors by developing an Ojibway immersion educational program.

The main difficulty which has been experienced in developing the immersion program has been to obtain curriculum material to teach the knowledge tradition of Grassy Narrows people in the Ojibway language. At the same time, the GNEA has access to a wealth of knowledge which is held by the Elders. They know the history, the Ojibway toponomy of their territory, plant uses and other knowledge about the land. They know how to describe these things in Grassy Narrows Ojibway.

To bring this knowledge tradition into the Grassy Narrows school, the GNEA decided to begin a process of participatory research. The goal developed was to utilize community researchers to record place names, stories and other knowledge about the land in Ojibway. This information would be placed onto a CD-ROM which would act as a source of material for the development of Ojibway curriculum. Although the use of computer technology to teach about a bush-based way of life may seem ironic, the GNEA Board recognized (one of the members is a regular trapper) that more options will be created by learning how to use a computer while learning about language and culture. The GNEA hopes that when the curriculum is used in the classroom, the children will be supported to retain the use of Ojibway and create a positive view of themselves, their community and their culture.

Roger Fobister, Director of Education for the Grassy Narrows Education Authority has expressed the interest of the G.N.E.A. in the following manner (this statement is contained on the demonstration of the demonstration CD-ROM):

"Our children are our future. To live fulfilling lives as adult Ojibway people, it is important that they get educated in our language, history and culture.

The future of our language is at risk. To protect it, it must be spoken in our school.

Saving our language must be seen as protecting part of the heritage of the whole human family. Our language and culture project represents our first step in a comprehensive initiative to do this.

Our CD-ROM project brings together the computer, as the learning tool of the future, with the knowledge of our people about our way of life. It will demonstrate to you how we can bring our way of life into the classroom as geography, environmental studies, history, culture and more - all in the Ojibway language."

2.3.2 *Grassy Narrows Residents*

The participation of Grassy Narrows residents is key to the success of the project. The aim of the CD-ROM project is to create learning materials out of the land-based lived experience of the people of Grassy Narrows. This requires that Elders and other knowledgeable people be willing to share their stories and knowledge of the land. During the first stage of the project, which saw the production the demonstration CD-ROM, there was willingness on the part of the Elders and community leaders to support the project in moving forward. A broader level of participation will be required in the next comprehensive documentation stage of the project.

The participation of community researchers is also key to the success of the project. One of the ways in which language and knowledge can be transmitted between generations is to utilize people from the community in the collection of the stories and the production of video documentaries. One community translator worked on the demonstration project while the hope is

that two or three community researchers/translators will be involved during the comprehensive documentation stage.

2.3.3 *The Taiga Institute*

Members of The Taiga Institute for Land, Culture and Economy have worked on land-use and other cultural studies for over 15 years. The experience of these researchers was that many of the studies which are produced for land claims processes or other negotiations often end up stored on a shelf in the form of written technical reports or on computer data storage tapes. Sometimes, land use studies may result in a book which is utilized in a university setting. Rarely, however, does any of the material from these studies make it back to First Nations school or other public education programs.

The Taiga Institute's interest in the GNEA project was to look at developing a cost-effective means to take material stored on a G.I.S. system and create an inter-active learning tool for use in a school setting. The Taiga Institute recognized that land-based knowledge and social organization is tied to the use of the land. However, creating a means to pass on language and knowledge related to a land-based way of life in a school setting might provide the next generation options or opportunities to better incorporate the knowledge tradition of their First Nations into their own lives. While the land-based livelihood activity of Grassy Narrows youth has been drastically reduced because of factors such as compulsory schooling, Grassy Narrows people continue to stress the importance of the land to them. Working on the land within their ancestral knowledge tradition should be easier if some of the knowledge of the land-based way of life is linked to their education in school.

2.3.4 *Timberline Forest Resources Inventory Inc.*

Timberline Forest Resources Inventory Inc. is a company based in Vancouver which undertakes many types of resource inventories. At first, Timberline may seem to be a strange partner in this project. Several factors, however, made for a good fit. In virtually all of its business activities, Timberline works with the spatial organization and representation of collected ecological information. Timberline was brought in to provide programming expertise to create the multi-media application out of a G.I.S. system. Timberline has extensive experience with G.I.S., ArcInfo and other ESRI products, and has developed a large programming department to create and customize G.I.S. applications.

Timberline provided the technical programming expertise necessary to bring together the ideas of the education priorities of the Grassy Narrows Education Authority along with the G.I.S. multi-media applications of The Taiga Institute. Out of this partnership emerged the demonstration CD-ROM which provides shows the potential of an interactive learning tool for the transmission of Ojibway language, culture and knowledge in a school setting based on the spatial organization of the data.

3.0 The Challenge

3.1 Language and Culture Transmission

The indigenous knowledge tradition of Grassy Narrows Ojibway people presents a set of unique challenges to any attempt to faithfully represent it using computer-based multi-media technology. Firstly, the ancestral knowledge tradition of Grassy Narrows people is rooted in an oral cultural tradition. Secondly, it is intimately connected to land-based livelihood pursuits. Thirdly, this knowledge is embodied in a customary economy of cooperative common property arrangements.

In one sense, the use of multi-media computer technology cannot hope to "capture" some of the most significant aspects of the indigenous knowledge tradition of Grassy Narrows people any more than a book can. At best it may support them. This is because the customary indigenous knowledge tradition of Grassy Narrows people is as much dynamic process as it is time specific content. For example, the customary development of ecological knowledge by Grassy Narrows people is predicated upon the accumulation of personal knowledge of the land. Just as significantly, it is also predicated upon customary institutions embodying cooperative livelihood customs such as shared harvesting access to Manomin (wild rice) fields and ritual ceremonies. These customary institutions and their associated practices guide the collective development, organization and application of knowledge. Their influence spreads out from the individual to the household, connecting to other Grassy Narrows people, and other Ojibway beyond Grassy Narrows. This dynamic cultural process has historically provided the context for the security and well-being of Grassy Narrows people. The complexity and dynamic nature of this living knowledge tradition is not something that can be embodied in any tool.

But recording content of the ancestral indigenous knowledge tradition of Grassy Narrows people and representing it in the form of a geographically organized multi-media mosaic can result in a powerful information tool useful in a variety of contemporary settings - like the Grassy Narrows school. While it cannot by any means ensure the survival of a living customary knowledge tradition, its potential utility is nevertheless significant. Even for Grassy Narrows, it holds out the potential to link the customary knowledge tradition of the First Nation to a formal education system - school - which Grassy Narrows youth are now required to participate in for much of the year.

As already noted, at present young people attending the Grassy Narrows school learn history, geography and all of their formal subjects using curriculum and other education resource materials which are written in English by non-aboriginal people. Such a situation creates an ironic paradox. It is ironic, for example, that while non-aboriginal researchers are busy "capturing" indigenous pharmacological "lore", Ojibway youth at Grassy Narrows have only non-aboriginal curriculum and other education resource materials available to them. The Grassy Narrows CD-ROM project is intended, in part, as a response to this paradox.

3.2 The Technology

One of the primary decisions which had to be made at the outset of this project was the method by which the multi-media CD-ROM would be developed. The first software which was considered was multi-media authoring software which allows a person to combine different media

formats such as text, graphic images, photo images, audio sound clips and video clips. During discussions with community residents and based on the experience of the researchers involved in the discussions, one of the primary concerns which emerged was how to represent a land-based culture and language on CD-ROM multi-media computer technology. It was decided that language materials could be generated out of the stories of Grassy Narrows people. However, the elders tie many of their stories to geographic locations spread across the landscape. Therefore, a format which utilized spatial organization of the data (place names and stories) in a multi-media format appeared to be the most appropriate format. A map which contained "hot-links" to text, photo images, video clips and audio clips appeared to provide an appropriate way to develop the CD-ROM. A number of software developments in 1996, however, led to a different route being chosen.

In 1996 Environmental Systems Research Institute (ESRI) released a beta-version of a software development tool called "MapObjects". Map Objects allows for a Geographic Information System (G.I.S.) database to be developed into a fully interactive multi-media application that is spatially organized. This was a significant advancement as it allowed a multi-media application to be developed which maintained the "living" link between the spatial map and the associated database. Other multi-media authoring tools import a map created by a G.I.S. system as a "dead" map, or a map which does not maintain the link with the database from which it was created.

For the GNEA demonstration project, agreement was reached to utilize P.C. ArcInfo to create the main map and then utilize MapObjects and Visual Basic 4.0 to turn the map into an interactive culture and language learning tool by linking text, photo images, video documentaries and audio clips to the map as a "live" tool. The programming involved in this process created an application which has the potential to be changed or updated by the end-user on an on-going basis.

This approach allowed the data (stories) of Grassy Narrows Elders to be presented spatially on a map in relation to Grassy Narrows toponymy. Multi-media material was able to be tied to the physical location to which it pertained. This map-based application allows Elders to pass on their mental maps of the local landscape to younger people in school through the transmission of both place names and culturally significant stories and other information such as site specific indigenous knowledge. A secondary advantage to the G.I.S. multi-media approach is that it provides First Nations which have undertaken land-use studies with a framework to turn existing material into a learning tool which can be utilized in their schools for teaching culture and language. This approach offers a cost effective method to utilize existing data which has often disappeared onto shelves to be brought back to life and transmitted to the children of the First Nation.

The technology in this case provided a means to develop a local application which would pass on cultural and language knowledge from the elders to the children within a school setting while at the same time fostering familiarity with computer technology. Technology, in this case, provided the means to spatially organize large sets of data and create a learning application which integrates many different forms of media and which can be as easily used as any other CD-ROM. The Grassy Narrows Education Authority hopes that the technology will provide one tool, among many, for the youth to create their own mental maps and feel grounded in their local region, culture and language.

3.3 Intellectual Property Rights

The Grassy Narrows CD-ROM concept can be used to document a wide variety of indigenous knowledge. For example, the potential exists to document indigenous botanical knowledge in several different ways: the types of plants used for herbal medicines, the locations of these plants, the stewardship and protection of the plants. This type of indigenous Ojibway knowledge, however, has historically been embedded within systems of common property use. In a contemporary setting, "documenting" this information gives rise to urgent questions. Whose knowledge is this? Who should control it? What should outsiders be allowed to do with it? Indigenous botanical knowledge, for example, could be used to protect the locations of medicinal plants from clear-cutting forestry harvesting operations. However, it could also be used by people and organizations as a source of information to secure financial gain from the commercialization of active medicinal compounds.

These questions must be addressed from several different angles by indigenous groups that become involved in recording their indigenous knowledge. The type of information that should be recorded must be addressed. Who should have access to it must be addressed. Who should control access to it must be addressed. Such questions point to only a few of the issues that must be considered.

The question of intellectual property rights arises even for indigenous knowledge which does not possess commercial potential for outsiders. For example, the knowledge for the Grassy Narrows CD-ROM project, including place names and place names stories, has been collected from a group of Elders. Questions will be asked such as: who should receive the financial benefits from its commercialization if a CD-ROM featuring indigenous knowledge is offered for sale to other indigenous communities or the general public? In the case of Grassy Narrows, the CD-ROM information legacy that is being collected is being held in trust by the Grassy Narrows Education Authority. The profits gained from any commercialization of it will be used to further the goal of implementing a full Ojibway immersion program at the Grassy Narrows school. In the end, however, there is no escaping the issue of the allocation of the potential financial benefits from the commercialization of this type of "community" property (there is no word for community in Grassy Narrows Ojibway). This is a debate that any indigenous group working with this information and technology will invariably have to go through.

4.0 The Ojibway Culture and Language CD-ROM Project

The full-scale Ojibway Lifeways project envisioned by the GNEA aims to develop a full-scale multi-media CD-ROM of the lifeways and language of Ojibway people for use in classroom settings to teach Ojibway culture and language. It may also be distributed by the GNEA to a wider audience. The purpose of this project is to complete the demonstration CD-ROM as a map-based multi-media CD-ROM involving map, text, audio and video components and to develop a teaching manual to facilitate use of the CD-ROM in the classroom.

The Grassy Narrows demonstration CD-ROM only provides an overview of how information will be structured and presented to the user. A brief written overview of the CD-ROM project is sufficient to provide a description of the CD-ROM for people who cannot experience it through direct use.

All information on the CD-ROM will be keyed to a map of the ancestral lands of the Grassy Narrows people, with all places on the map being named in Ojibway using the names of the Grassy Narrows people. The intent is to illustrate various aspects of the land-based lifeways of the Ojibway people from both historical and contemporary perspectives.

The content of the CD-ROM will be in both Ojibway and English (with English material on the CD-ROM being translated from Ojibway source material). This will make it useful for both Native Language classes and Native Studies Classes and for the general indigenous and non-aboriginal public. By working especially with Elders, the rich vocabulary and grammar of Ojibway, as known by people who have spent a lifetime on the land, will be preserved for posterity both for aboriginal and non-aboriginal societies as part of the cultural and linguistic heritage of humanity.

Information contained on the CD-ROM will be accessible through points on the map, as the focal point of the CD-ROM, in the form of text, audio and video material. In other words, this material will be associated with the map points. Video and audio material will be accompanied by text in both the Ojibway and English languages. Finally, a dictionary and exercises will be included to aid in building vocabulary for use in native language settings.

Video documentaries on the annual livelihood activities of Grassy Narrows people on the land (with associated transcribed and translated text material) will also be included. These documentaries will cover the yearly livelihood pursuits of our people on the land based on the annual Ojibway lunar cycle. Each video documentary will be illustrative of land-based livelihood activities of that month. For example, one of the late summer/early fall moons is the "wild rice moon" or Manomin Keesis. The video clip for that month will show historical and contemporary livelihood strategies for harvesting and processing Manomin as well as the care of this crop. The audio components of the video documentaries will be transcribed and translated into text in the form of Ojibway and English clips that will include a vocabulary of key words for the text. This vocabulary will form the basis of vocabulary matching (eg. Ojibway words to their English equivalents) and other (eg. pictures to words) language skill building exercises.

The multi-media CD-ROM will also include numerous audio segments and associated transcribed and translated texts which will be accompanied by appropriate still shots. The content of these clips (including place name stories and histories) will be decided in a community workshop with elders, members of the Grassy Narrows Education Authority, and teachers. They will provide information about topics such as the following:

- * the stories of certain place names
- * activities associated with places including economic, social or ceremonial
- * environmental stewardship

The audio clips will also be accompanied by transcribed Ojibway and translated English texts, with attached vocabulary and exercise activities.

As already noted, text, audio and video material for the multi-media CD-ROM will be thematically organized around a map of the ancestral lands of the Grassy Narrows people. This map will include a complete toponymic (place name) inventory of the Ojibway place names of the ancestral lands of the Grassy Narrows people derived from their indigenous knowledge of their lands. It will be organized into a Geographic Information System database (PC ARC-INFO). The CD-ROM user will be able to zoom to and out from specific areas of the ancestral lands map

and print all or portions of the ancestral lands map. The text, audio, and video material of the CD-ROM will be "hot-linked" to historically, culturally or ecologically significant locations on the map. Through this format the natural fit between the land and culture of Ojibway people will be featured and emphasized.

Also as already noted, the CD-ROM will be accompanied by a teaching manual. The purpose of this manual will be to give examples of how the CD-ROM can be used in different classroom settings including native language classes in all divisions (primary, junior, intermediate, and secondary), native studies classes in all divisions in both aboriginal and non-aboriginal classrooms, and other possible subject areas. For example, the teaching manual will illustrate how the CD-ROM may be used to introduce a unit on community mapping in social studies, indigenous environmental knowledge in environmental studies, or story telling in language arts.

Through this project, the Grassy Narrows Education Authority will keep open the window to traditional Ojibway language and culture for its own students and other aboriginal and non-aboriginal students in Ontario, by using a modern high technology format that will be attractive to today's student.

The vision of the GNEA for the full-scale project is significant in scope. It is also new and innovative. It will create a model for using computer technology to preserve aboriginal language in the context of historical land-based ways of life. The project involves a software concept that can be used as a model template for community-based action for language and cultural preservation. The model that we develop to document our language will provide a way for local communities to use a powerful technology in a powerful way to preserve aboriginal language and culture.

5.0 Concluding Comments

The language, knowledge and culture of the Grassy Narrows people has emerged out of an intimate link between the people and their land-based way of life. This way of life has been continually redefined and renewed over the course of historical memory for the Grassy Narrows people. However, a major cultural shift for Grassy Narrows people within the past couple of generations has been their move towards a much more settled way of life on their reserve. This has resulted from a complex process of government policy and personal choice.

This situation has reached a critical point as the majority of to-days children and youth at Grassy Narrows are not retaining the language, ancestral knowledge or culture of their people. This brings us back to our opening point. Linking common-property traditions and native language education in a formal school setting may seem a large leap but it is a necessary leap. Without the language, culture and knowledge of a land-based way of life, opportunities to pursue that way of life will be greatly diminished. Valuable knowledge may be lost. Retention of the Ojibway language, and retention of the Ojibway knowledge, to the degree that this is possible in a school setting, stands to provide a greater range of options for the future from which Grassy Narrows people can choose. Future generations of Grassy Narrows people will have a broader range of tools, created as a result of their having been taught in school the knowledge that was given by their Elders living today, to pursue an autonomous way of life within a contemporary context.

6.0 References Cited

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