

Phase III Dene Nation Mapping Project – Conservation of Gwich'in Materials
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Introduction:

Describe the objectives / goals of the project.

- *Why was this project completed?*

The Gwich'in Social and Cultural Institute (GSCI, the cultural and heritage arm of the Gwich'in Tribal Council) has started to build a comprehensive GIS (geographic information system - computerized mapping) facility within its organization over the last five years. Many sources of TK (Traditional Knowledge) information gathered by the GSCI and other sources have been incorporated into the GIS. The GSCI is planning to develop a system of cataloguing proposed development within their GIS to record potential impacts of development to heritage and culturally valued areas. However, to be able to fully protect these cultural and heritage resources and understand current and potential cumulative impacts on these areas, there is a need to decrease the number of gaps in the GIS data and to assure that the data is of high quality and updated regularly.

A boom in applications and permits is expected in the near future, especially if the Mackenzie Gas Project goes forward. In anticipation of this and other proposed development, the GSCI has identified the need to collect more baseline data so that they can better assess the potential impacts that development may have on cultural and heritage resources.

One key dataset in the GSCI's GIS is Dene Nation Mapping project data. The Dene Mapping Project was initiated in 1974 to assist with land claim negotiations. It documented Dene land use in the NWT for the period of 1890 to 1975. Approximately 600 Dene trappers, including many from Gwich'in communities, recorded "hunting and trapping trails; fishing areas; species sought; the years, seasons and frequency of use; and in some cases cabins, camps, and important cultural sites" on 1:250,000 map sheets (Asch, Andrews and Smith 1986: 36; Asch and Tychon 1993: 732). The Dene Nation owns the materials and have released the GIS dataset, the paper maps, interview cassettes, and other materials to the GSCI to ensure they remain protected and available for use. The materials created during the mapping project which were originally used to link the trails and biographic information have never been fully reassembled. These maps were digitized in the 1980s and are a valuable resource in need of updating, and the GSCI has decided to clean-up and update this GIS dataset at a later phase of this project.

- *What did you want to learn/achieve and why?*

There were three phases to this project. Phase I consisted of a brief inventory of the Gwich'in Dene Mapping Project materials (cassettes, maps, other records) at the NWT Archives. In Phase II, a conservator worked on the most at-risk maps and stabilized them, the paper records (trapper's biographies) were copied onto stable paper, and interview cassette tapes were digitized and transcribed. Phase III focused on the conservation of the remaining maps and transcription of Dene Mapping Project land use tapes discovered in the Gwich'in Language Centre in Fort McPherson. Teet'it Gwich'in cultural data from GSCI work spanning two decades were also digitized into the GSCI GIS. Traditional Gwich'in place names data, vital for understanding cultural geography, were also updated.

Conservation of Maps

In Phase II, about half of the maps (there are a total of 40 map sets, made up of 430 individual NTS 1:250,000 scale map sheets containing Gwich'in information) were sent to a conservator and stabilized. A further 120 maps were conserved but only to the point where the mosaics were dismantled and the tape removed. During Phase III, these sets were flattened and underwent tear repair and storage. The final 20 other map sets (with a total of 223 maps) were conserved during Phase III and are now stored in the NWT Archives.

Transcribing

In Phases II and III, the nine original Dene Nation cassettes identified in Phase I and five other Dene Nation Mapping Project cassettes were digitized and transcribed.

Digitizing Teet'it Gwich'in GIS data

The GSCI has worked extensively with Teet'it Gwich'in Elders and harvesters mapping heritage features such as Gwich'in place names, trails, cabins, graves, locations where people drowned, camp sites, police cabins, and moosehide boat building locations. Although some of this data was digitized into various GIS files, much remained to be digitized and some basic GIS cleaning was required. Paper maps were scanned, creating a digital record of the map and allowing it to be imported into the GSCI GIS. Features were then digitized and attribute data added.

Training

The GSCI focused on discussions with their GIS contractor to get a better understanding of their data and to develop a preliminary plan to move the institute forward with respect to their GIS capacity. Two GSCI staff took two levels of Microsoft Access Training in Yellowknife to increase their capacity to work with the GSCI's digital databases.

- *How the information/results will be used.*

As mentioned above, information gained through this project will be used to evaluate proposed projects in the Gwich'in Settlement Area.

Describe personnel involved with the project.

- *Who completed the work and describe their qualifications?*

Alestine Andre

Ms. Andre is a Gwich'in Achievement Award winner and a National Aboriginal Achievement Award winner. She has an Interdisciplinary Master's degree (focussing on Gwich'in ethnobotany) and has worked with the GSCI since 1994 in the capacity as Cultural Director, Executive Director and Heritage Researcher. She is a Tsiigehtchic resident, a Tsiigehtchic Renewable Resource Council member and a Gwichya Gwich'in Band Councillor.

Ingrid Kritsch

Ms. Kritsch, a Wise Woman Award recipient, has a Master's degree in Anthropology and has been both Executive Director and Research Director of the GSCI since its creation in 1993. Ms. Kritsch has been involved in much of the research carried out by the institute since its creation. She has collaborated with the GNWT and the PWNHC on a variety of projects in both a research and administrative capacity.

Sharon Snowshoe

Ms. Snowshoe is currently the Executive Director of the GSCI. Ms. Snowshoe has worked as the Gwich'in Enrolment Coordinator and played a key role in genealogical research in Fort McPherson that resulted in the publication of Jijuu: Who are my grandparents? Where are they from? She has conducted traditional land use and oral history interviews with the GSCI.

Susan Cross

Ms. Cross has a Master's degree in Art Conservation. In her 25 years in the profession she has held conservation positions at the Canadian Conservation Institute in Ottawa, the Royal Ontario Museum in Toronto, the Prince of Wales Northern Heritage Centre in Yellowknife, and the Glenbow Museum in Alberta. She currently operates her own conservation business in Calgary.

Kristi Benson

Kristi Benson has a Master's degree in Archaeology and GIS training from BCIT. She has conducted heritage and archaeological projects for more than ten years, and has been employed or contracted by the GSCI since 2004. She has worked on numerous GSCI Projects including Gwich'in place names projects and oral history projects.

- *Describe the scientific methodology and/or traditional knowledge (if applicable) that was used to collect information.*

Describe any other similar work that has been done, taking place or expected to take place in the future.

- *Was this project part of a larger project?*
- *Will the data collected be put together with data from another?*

This project is part of a multi-year project. In Phase I of this project the GSCI searched for and catalogued all tapes, paper maps, and other paperwork relating to the Dene Mapping Project. A report entitled, Repatriating Gwich'in Traditional Knowledge from the Dene Mapping Project (2006) was produced, along with a database of maps,

tapes, and written records. In Phase II, the GSCI repatriated copies of this material by digitizing cassette tapes and transcribing them, photocopying papers, and conserving a portion of the paper maps. Phase III of the project completed the conservation of the Dene Mapping Project maps, digitizing and transcribing cassettes, and digitizing other GSCI research maps.

Methods:

a. In this section, give a detailed record of how the project was completed.

- *What training was completed?*

Two GSCI staff completed two levels of Microsoft Access training during Phase III.

- *What field work was completed? Describe how it was done. N/A*
- *What methods were used?*

Conservation Methodology

The following five steps were undertaken by Ms. Cross to conserve the maps.

1) *Dismantling of the map mosaics*

The taped map mosaics were dismantled since leaving them taped together would cause further damage during handling.

2) *Removing the tapes*

All evidence of various tape was removed from the maps. Tape used on the maps is unstable and will deteriorate with time causing staining and damage.

3) *Flattening of maps*

Creases and folds in the paper were lightly moistened and placed under weights to flatten them.

4) *Tear repair*

All tears and weakened areas in the paper were repaired with specialty document repair tape applied to the reverse of the paper.

5) *Storage*

Each completed map set was placed or returned to an acid-free map folder interleaved with acid-free tissue paper and stored in a map cabinet.

GIS Methodology

The digitizing of Teetl'it GIS data entailed:

1) *Having the maps scanned at KopyKat*

Each paper map was scanned on a flat bed map scanner to an appropriate image file.

2) *Georeferencing the maps*

The image for each map was georeferenced by assigning it coordinates in ArcGIS.

3) *Digitizing the data*

Each geographic feature was digitized into the appropriate file and attribute data entered as appropriate.

Transcription Methodology

The transcribing of sound recordings entailed:

1) *Digitizing the original cassette tapes*

The cassette tapes were digitized using archival standards during previous phases – see Phase II report for technical details.

2) *Transcribing the sound recordings*

Each sound recording was loaded into ExpressScribe software and transcribed to GSCI standards. The transcripts were reviewed by a Gwich'in speaker to add any Gwich'in-language translations. Digital and paper copies will be filed with the Archives at a later date.

- b. Describe how the communities/organizations were involved.
- *Did a community organization lead the project?*
 - *Were community members hired as part of the project team?*

The GSCI is a Gwich'in organization. Community members are staff of the GSCI and participated in this project at every stage.

- c. Describe how traditional knowledge was used, if applicable.
- *Were Elders interviewed?*
 - *Were community members involved in selecting the project area?*

The Project was in part a Traditional Knowledge project. Hundreds of Elders were interviewed to create the original maps and tapes.

Results:

- a. Describe what results were discovered or learned.
- *Which CIMP category did this project support; "Monitoring and Research" or "Capacity Building and Training" or both?*

The project fits within the Monitoring and Research category and the Training category.

- *If this project was a monitoring / research project, which Valued Component did you study and why?*

This project will contribute information to the Human Health and Community Wellness Valued Component (VC), which includes Aboriginal Culture as an indicator. Eventually, the following VCs will be addressed through the GIS database for the Dene Mapping Project: *caribou; land mammals; birds (land); fish habitat, population, harvest; moose, and vegetation.*

- *If this project was a capacity-building project, who did you train? And what did you train them in?*

Two staff members were trained in MS Access to increase their capacity to use GSCI databases.

- *How did the results of this project educate people on cumulative impacts?*

This project will add a tremendous amount of information to the GSCI GIS. Both this phase and the larger multi-year project had monitoring and capacity development objectives. Once all the maps are conserved and protected, a GIS update of the trails

data will build the capacity of the GSCI to respond to proposed development and to understand the potential cumulative impacts of particular areas. The GSCI will better understand and manage Gwich'in cultural and heritage resources by having a unique historical record of land use provided by some of the last Elders and trappers who spent much of their lives on the land. This project has increased the GSCI's capacity to document and store vital historical and cultural information and produce educational and research-based materials to promote and preserve Gwich'in culture. The GSCI is already using the newly digitized data in both license reviews and in numerous other projects – all of which are community-led and involve reporting to Gwich'in communities.

This project has helped the GSCI improve the Gwich'in communities' ability to monitor its cultural landscapes by giving them access (through the GSCI GIS) to very important cultural and land use information, which the Gwich'in have had very little access to since they went on to negotiate their own land claim.

Discussion / Conclusions:

- a. Describe how the results of this project will further knowledge of cumulative impacts.
 - *Do you plan to do more work like this in the future?*

This is a multi-phase project. The GSCI will finalize the GIS data over the next five years. The GSCI plans to update the GIS data either during a later project or more likely through the anticipated GIS staff position within the GSCI. It is impossible to understand the cumulative impacts on cultural and heritage resources without a thorough documentation of heritage features. This project, in all its phases, is helping the GSCI to build capacity to understand impacts on cultural and heritage resources.

- *Did you have a community meeting? Was a report written?*

During the Dene Mapping Project, all of the Gwich'in communities were involved in the creation of the related materials. Although many of the people who were involved in providing the information are no longer alive, their descendants are, and are quite interested in learning more about how and where their grandparents or great-grandparents lived on the land. Collating this information will help rebuild these important connections to the past, in all of the Gwich'in communities. Additionally, the GSCI has, and will continue to send their final reports to other NWT communities within the Dene Mapping Project study area to familiarize them with the GSCI's work, encourage them, and increase their capacity to conserve and update their own Dene Mapping Project materials. Acknowledgments of past cooperation and shared history would be strengthened.

- Describe how results of the project were communicated to the communities and other groups.

- Will the report be made available on a website

Communication to the communities of the results of this project will be carried out through various mechanisms. The GSCI is governed by a board of directors comprised of members from all the communities and a representative from GTC – these board members are responsible for informing other community members of GSCI initiatives through local organizations. The GSCI also presents a summary of each project, to the Gwich'in Annual Assembly, reaching numerous community members. The Dene Nation data also forms a vital addition to many GSCI research reports and books, distributed freely to Gwich'in beneficiaries.

Asch, M.I., T.D. Andrews, and S. Smith

1986 The Dene Mapping Project on land use and occupancy: an introduction. In: Philip Spaulding, (ed.) *Anthropology in Praxis*. Occ. Papers in Anthropology and Primatology, 1986 Edition. Dept. of Anthropology, University of Calgary. pp. 36-43

Budget:

Statement of Revenue and Expenditures:

Table 1: Statement of Revenue and Expenditures

REVENUE		
Gwich'in Social and Cultural Institute		\$11,422.50
NWT CIMP		\$16,350.00
Other		\$3339.00
	Total Revenue	\$31,111.50
EXPENDITURES		
Project Activity	Total Project Cost	NWT CIMP Funding
GSCI staffing: leadership, project Management, reporting.	5,000.00	0.00
Conservation of maps	9,600.00	9,600.00
GSCI staffing: translation of transcripts from Gwich'in	2,000.00	0.00
Shipping costs / supplies	751.08	751.08

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Transcribing and digitizing tapes	5,135.00	5,135.00
Digitizing equipment use	1,250.00	0.00
Scanning of NTS maps	413.92	413.92
Access courses	3339.00	0.00
GSCI Administration	3622.50	450.00
Total Expenditures	\$31,111.50	\$16,350.00
SURPLUS (DEFICIT) OF NWT CIMP FUNDING		0.00
	AMOUNT PAYABLE TO INAC	0.00

Appendix

And example map showing digitizing are attached below. Note that published maps were not produced for this project as the data itself was the product.

106L/10 Trail River. Portion of NTS 1:50,000 map showing trails digitized for this project.

