

ANTHROPOLOGY IN PRACTICE

News from the Society for Applied Anthropology in Manitoba (Inc.). SAAM Inc.

The Technological Tool Box: Recording, Analysis and Presentation of Anthropological Data

Matthew Singer (White Spruce Archaeology) & Darcy McGregor (InterGroup Consultants)

Every anthropologist has their preferred methods for recording data while in the field but there are new technologies that make data collection, management and presentation much easier. It is difficult to overstate the importance of having high quality data, so that one can ensure reliability and reproducibility of results - new research often builds upon old research which in turn provides the foundation for subsequent work. At the same time however, survey research software must be flexible and easy to use; whether research is undertaken from a single location, by research teams separated by large distances, or by those collaborating online.

A host of new software programs and hardware allow the modern researcher to create an environment where everyone can immerse themselves in an interactive research setting. Some of the more useful free programs these days include Google Earth and Google Sketch-up. If you have the money to do it, consider Statistical Package for the Social Sciences (SPSS), ArcGIS, Qualitative data analysis software (such as Atlas.ti or Xsight), and even Windows Vista. While a normal laptop computer will run these software packages, new hardware components are becoming more affordable and accessible that will make our lives as anthropologists easier. Tablet PCs, and Global Positioning System (GPS) units round out this list. These tools can help the anthropologist in every stage of the research process, from designing a questionnaire to collection data, and from analysis to reporting.

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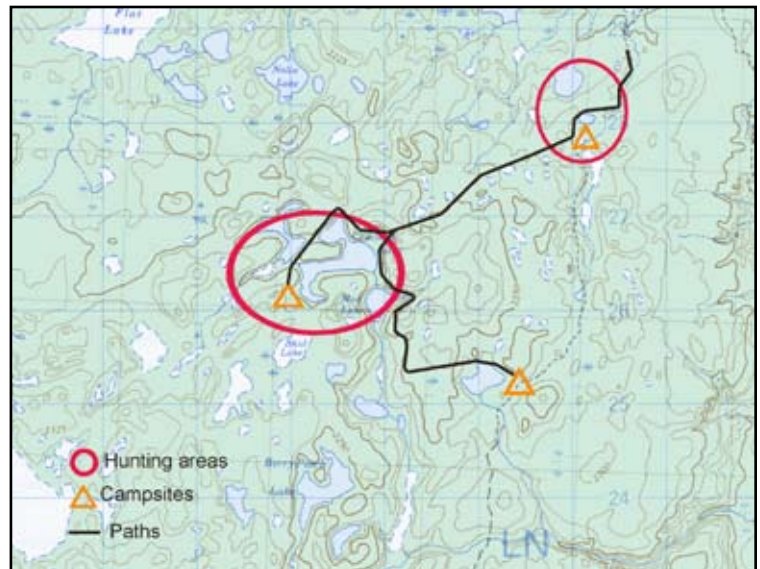


Figure 1: Information recorded during interview

Hardware

Ideally, researchers can have access to a laptop computer when recording data in the field. Newer laptops, specifically tablets, with the Windows Vista operating system allow for more flexibility than ever before. A tablet, unlike traditional laptops with keyboard attached to monitor, has a screen that the researcher can write on, creating a more personalized and interactive experience. Vista makes a tablet PC even more user-friendly and has built-in features to help manage data. For example, much like hovering over a large map, you can touch the screen, instantly recording locations or other important information. You can also link information (though ArcGIS - discussed later) to map points. This can be useful in a number of ways. For example, you can insert a photograph of a specific location (i.e. a campsite) making the areas more recognizable. Similarly, you can record details related to traditional land usage (See Figure 1).

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SAAM Annual General Meeting

Date: September 25, 2008
 Time: 6:00 p.m. In-person registration
 6:30 p.m. AGM and Guest Lecture
 RSVP to info@saaminc.org

Join the fun! Five executive positions are open this year and I encourage you to put your name forward to sit on the executive, or help out by volunteering on the newsletter or website, or coordinating the speaker series! Executive members are also encouraged to seek re-election.

2008/2009 Elected Executive Positions*

- President: Siobhan Kari (2 year term, 2007/08 to 2008/09)**
- VP Programming - Open
- VP Membership and Communications - Open
- Secretary- Open
- Treasurer - Open
- Member at Large - Open

Nominations must be submitted to info@saaminc.org by Friday September 19, 2008.

The Society for Applied Anthropology in Manitoba brings together practitioners and academics dedicated to applying anthropological knowledge in provincial, national and international contexts. An emphasis is placed on networking to identify skills and expertise and to contribute to an increase in professional opportunities. The society fosters the dissemination of knowledge to the public, government and market place of the contributions of the holistic, cross-cultural approach of anthropology to the discovery, analysis and solution of many social, political, economic and ecological issues.

Cross Common Room, Rm 108, St. John's College
 University of Manitoba, (Fort Garry Campus)
<http://umanitoba.ca/campus/parking/>

*You must be a member in good standing to occupy an elected position and to vote in SAAM elections.

** The SAAM Constitution is available online at <http://www.saaminc.org>.

2008-2009 Membership fees

Students - \$20
 Professionals - \$40

AGM Admission: (coffee & snacks incl.)

SAAM Members: Free
 Non-Members: \$5

The Annual General Meeting will be followed by a guest lecture. Watch for the AGM flyer for more information.

THE MANITOBA ARCHAEOLOGICAL SOCIETY, SOCIETY FOR APPLIED ANTHROPOLOGY IN MANITOBA
 AND ASSOCIATION OF MANITOBA ARCHAEOLOGISTS PRESENT:

A BBQ!

When: Saturday, Sept. 6, 2008
 Time: 12:00pm-4:00pm
 Where: St. Vital Park: Site 2
 (along Perimeter Road inside the park)

RSVP to info@saaminc.org

Park map: <http://www.assocmanarch.com/9.html>

Come and join the MAS, SAAM and AMA for our first ever collaborative Fall Barbeque. Meet new friends, catch up with old ones and enjoy some hotdogs, veggies and chips, all in a scenic, outdoor setting. Free food for all members, so come and sign up!



Environmental Change and Off-Road Transportation in Churchill, Manitoba

Justin Gilligan, M.A. (Storm Studies in the Arctic, University of Manitoba)

With all the recent attention given to climate change many Manitoban's have a hard time relating, especially during the miserable cold snap Winnipeg has experienced this past winter. However, there are many Manitoban residents with a strong connection to the land whose everyday lives are impacted by such changes. My MA research in Churchill worked with one such group whose lives are being affected as a result of a changing environment. The hunters, trappers and fishermen who rely on the land and wildlife of the Hudson Bay Lowlands are experiencing a wide variety of impacts as a result of changes in climate that directly affect their livelihoods.

My research, under the national research umbrella of ArcticNet, looked specifically at how changes in the environment previously and currently impact off-road travel, i.e. travelling by boats, snowmobiles and all-terrain vehicles (ATVs) to access harvesting locations. These modes of transportation are an essential part of putting food on the table for many northern residents and thus understanding how changes in climate affect these types of transportation is critical for local harvesters.

One of the critical components of my approach to better understand this topic was the linkage of Traditional and Local Knowledge with scientific knowledge. This was done in my research in the following way. First I spent time on the land with Churchill harvesters learning about the topic while observing hunting, trapping and fishing practices and travelling on the land. Then I conducted interviews with the participants to document their observations (from their knowledge system(s)) on the research topic and how it has affected them and their families' lives. I then linked these observations to previous research on similar topics and presented this information in my thesis. I also analyzed Environment Canada weather observation data from Churchill and linked trends to local harvester's observations. When presented alongside one another these knowledge systems give a more holistic understanding of the topic.

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A group of trappers encounter a stream that thawed overnight, forcing them to cross the open water by snowmobile in order to return to town. Photo: P. Fitzpatrick

My results indicate that the snowmobile season is getting shorter in the Churchill region as a result of changes in snow and ice conditions (i.e. snow and ice accumulating later and thawing sooner compared to previous decades). However, warmer temperatures during the colder winter months (January and February) have enabled more days per season that snowmobiles can be used. On the flipside, these changes have resulted in a longer open water season that has led to an increased length of the boating season. As for ATVs, they are regarded as fairly capable year round, however an increased polar bear presence and increased precipitation make it more dangerous and difficult to travel by ATVs.

Other results highlight changes in harvest success. For example, caribou are coming closer to town reducing required effort to hunt caribou. Also, moose are increasing in numbers and proximity to town as well which leads to a reduced effort required for hunting moose. Changes in snow and ice conditions have severely impacted hunters' ability to access traditional goose hunting grounds

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The World of a Consultant Anthropologist: It's not as easy as it sounds!

Summary by Hani Khalidi, VP Membership and Communication

At the last S.A.A.M. Inc. meeting, Dr. Virginia Petch, a consulting anthropologist for over 20 years, described the world of consulting anthropology drawing on her own experiences. She encouraged students to consider anthropology as a career and addressed some common misunderstandings about anthropology. First was the perception that employment as an anthropologist was limited to traditional types of jobs. She suggested that this is not true and that one could make a career in anthropology by being creative and tuning into observed needs. The second misunderstanding that Dr. Petch presented is that consulting anthropologists make “lots of money”. She noted that in fact salaries are average when compared to other professions. The third misunderstanding she addressed is that working as a consultant it is a move away from academics and therefore includes a loss of theory or theoretical background. Dr. Petch countered this by noting theory is used on every project; staying current is a key to being a successful consultant.

She stressed that there are many career opportunities as an anthropologist but that there are also expectations from employers and co-participants on any given project. Some of the realistic expectations of consultant anthropologists are:

- An understanding of pertinent and important Provincial and Federal laws that would affect how to proceed as a consultant.
- An understanding of UNESCO guidelines which act as an international guide to human rights research.
- A need for impeccable ethics, not to treat people like data!
- Understanding available methods for consulting research.
- The ability to react and advise quickly

Conversely, some of the unrealistic expectations are:

- Meeting in remote communities on short notice.
- Costly endeavours that might be questioned by an employer.

Dr. Petch suggested that it is important to emphasize to employers that human and cultural research takes time. The extreme flexibility expected by employers while working with communities is affected by cultural issues. Scheduling does not always work and methodology needs to be adjusted with every project. Anthropology and consulting can be used as a systematic approach to deal with day to day problems and issues within societies and cultures. She

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Dr. Virginia Petch, Northern Lights Heritage Services Inc

emphasized that the problems dealt with as an anthropologist focus on preventing or minimizing irrevocable changes to cultural well being

Dr. Petch outlined some skills necessary in a framework for success as a consultant:

- Flexibility or the need to make changes without warning is important and that as an anthropologist you need to be prepared to be challenged at every step.
- Keeping up to date in reading, especially since there is a need to have new methods to design and combat research challenges.
- Know when to listen and when to be quiet. There is a need for patience and to be humorous in serious and stressful situations.
- Try to think “outside the box”. Creativity and openness to new ideas are key, especially in the presentation of data.
- Factor “emics” and anticipate the needs of changing projects.

Dr. Petch concluded her presentation by adding that all anthropologists, consultants or academics should try not perpetuate old and incomplete ideas but instead should investigate new avenues to challenge old ideas.

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Environmental Change...

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during the springtime as it is more dangerous to cross the Churchill River during this period. There are also a wide variety of increased hazards observed by local hunters including increased breakage of snowmobile equipment as a result of inferior snow conditions, decreased availability of the quality of snow required to construct an emergency shelter (i.e. igloo) and less predictable and more dangerous ice conditions.

This project, primarily funded by ArcticNet and Manitoba Conservation, is a good example of how researchers from

social and natural science backgrounds can create linkages between 2 knowledge systems in order to present a clearer and more holistic understanding of a particular topic. There are many students doing such work, many within ArcticNet sub-group *Project 3.6: People and Environmental Change*. For more information on this project visit <http://home.cc.umanitoba.ca/~umgillig> where you can find a link to download my thesis. Also, watch for a book coming out soon that is co-authored by myself and the project participants titled *Changing Landscapes, Changing Livelihoods* that has been accepted for publication by the

Technological Toolbox...

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A GPS unit is used to accurately record X, Y and Z provenance (longitude, latitude and altitude respectively) for any spot on the planet. Potential uses of GPSs continue to expand and currently include:

- Plotting driving directions in a car
- Finding a location on a paper map
- For geocachers, finding specific locations.
- For surveyors, recording houses surveyed or marking the position of certain features on the landscape.

These X, Y and Z coordinates become the basic building block for the data. Information collected on the GPS can then be imported into a variety of programs and represented visually. Google Earth is a useful place to gather base maps for your point data. A spatial database program will allow for more data to be associated with each point.

Software

Google Earth (earth.google.com) is an online computer program that allows the user to take advantage of satellite imagery or map data to view any point on earth. Paper maps will always have their uses, but Google Earth provides detailed imagery that can show large areas like provinces or states while also providing an opportunity to zoom in to small features (e.g., settlements). Researchers can view study regions or determine distances between various points. They can also take 'snap shots' of areas to create base maps for data presentation purposes. The researcher can then use a GPS unit to collect data that can then be put into the map. ArcGIS, designed by Environmental Systems Research Institute (ESRI), provides the most analytical power of any programs currently on the market.

ArcGIS (www.esri.com) is a multi-purpose GIS (Geographic Information System) program that can be used to manage large amounts of spatial data, perform spatial analysis and produce cartographically appealing maps to help in decision-making. The program allows the user to create a variety of different layers which can be turned on and off to suit the needs of the research. The user can also run queries against the data and, with the tools built into the program, highlight certain geospatial trends. Once the data is collected from the GPS and added to the GIS program, additional information can be added for each point of data. For example, if the point represents a house location, the participant's answers can be added. Maps created in Google Earth can also be imported so that the data shows up over the Google map (See Figure 2). Once all of the information is added, the researcher can then run queries, choosing to include/remove any piece of information added to each point. You will need another program if you need to run a statistical analysis with the data.

SPSS (www.spss.com) is a statistical software package that is widely used in survey research. Useful features include its ability to gather and analyze data for research studies, track changes in opinions, and help to understand how attitudes, beliefs, and social norms impact and predict behavior. SPSS can be used from the beginning of a project to help in the design of survey forms, and ensure consistency in the way that that data is recorded between different researchers. Since each study is different, there are a number of different modules that can be purchased depending on the researcher's needs (e.g., creation of survey forms, online collaboration and analysis).

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Figure 2: Point data represented visually

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Information can be imported into ArcGIS for presentation. If the researcher is looking for a different way to present data, Sketch-up by Google is an option worth considering.

Google Sketch-up (www.sketchup.com) is a program that can be used to create, modify and share three-dimensional models. For example, the program can be used to re-construct the layout of a settlement or the design of a house. Similarly, if a researcher is undertaking a housing survey, they can re-construct the house, move through it visually and show exactly where points of interest are located. The images created in Sketch-Up can also be imported into Google Earth to show its actual spot on earth.

Qualitative data software (QDS) is used when normal statistical methods of analysis aren't sufficient. QDS programs are used to facilitate qualitative analysis of large bodies of textual, graphical, audio and video data. It will assist you through the entire process of community consultation. The software is designed to support a wide info@saaminc.org

range of research methods, including grounded theory, phenomenology and discourse analysis.

The tools discussed here allow for uniform data collection, powerful analytical potential, and informative viewing options. While these tools are relatively new, as they develop, their potential for analysis and presentation will only grow. Fieldwork can always contain unknown trials and tribulations, hopefully usage of these programs and software will ease and allow the collection of better fieldwork data.

Volunteers needed!

Membership Committee– identify and attract new members to SAAM

Programming Committee– find speakers and topics, and arrange meetings and workshops.