



## Northwest Coast Archaeological Research at McMaster University

**As compiled by  
Rudy Reimer/Yumks  
with contributions from  
all mentioned individuals**

Northwest Coast archaeological research at McMaster University, Hamilton, Ontario ranges from the south and central coast to almost the most northern regions of the culture area. Currently, people in the Department of Anthropology are using a variety of methods and theoretical perspectives in their investigations. They use department facilities that include a soils analysis lab, a fisheries archaeology lab, thin-sectioning equipment, micros-

copy and image analysis equipment, and an ancient DNA lab, and have access to shared facilities in other departments, which provide the capacity for stable isotope, neutron activation, scanning electron microscopic, and GIS analyses. Interpretations of data gleaned from the archaeological record of the Northwest Coast incorporate agency theory, cognitive approaches, and multi-scalar analysis, and view archaeology as long-term history.

*Dr. Aubrey Cannon, Professor and Department Chair.* His Northwest Coast research has focussed on the archaeological histories of settlement and subsistence on the central BC coast, in the territories of the Heiltsuk and Wuikinuxv Nations. Building on his early and ongoing work on the long-term history of the Namu salmon fishery, he has expanded his investigations, through core and auger sampling,

to look at patterns and developments in settlement and marine resource use at a variety of sites in the Namu vicinity and, most recently, in Rivers Inlet. Working with members of the Wuikinuxv Nation in 2005-06, he obtained auger and core samples from eleven previously untested sites in Rivers Inlet. Preliminary analyses indicate a record of settlement that spans the past 4000 years, and a particular subsistence focus on the rich sockeye and chinook salmon and eulachon and herring fisheries of the area.

*Rudy Reimer PhD Student.* His PhD research will examine the Squamish Nation perceptions of the environment and territory and how those perceptions are manifested in the archaeological record. This research will help in ongoing development of Indigenous landscape archaeology, Squamish Nation land use

planning, the Sea to Sky highway 99 place name and recognition project and development of cultural content of information and materials for use in the joint Squamish/Lil'wat Culture Center, called Spo'ez, currently being built in Whistler. His research will actively involve Squamish Nation people by learning and doing archaeology, with, for and by the Squamish Nation. Therefore his research will combine traditional knowledge of places and events in Squamish Nation history, as told by elders and knowledgeable community members who know their history, language and culture. This past summer season included conducting community interviews, archaeological survey that found six mid- to high elevation sites and test excavation of a mid-elevation rockshelter. For more information contact Rudy at reimerr@mcmaster.ca.

*Natalie Brewster PhD Student.* Her research is in Tshimsian territory, near Prince Rupert and part of the Dundas Island Archaeological Project. She is interested in the motivations and economic basis for the establishment and maintenance of settlements on the islands. She will be analyzing fauna from a series of shell midden sites to create an archaeological history of marine resource use. Multiple sites will be sampled since this approach can provide the indications of subsistence over a wide area, while at the same time highlight variability that may be present between different time periods and site types. Through this research she hopes to show how the Dundas Island Group was used through time, as well as how they fit within the wider social and economic context of the northern Northwest Coast.

*Meghan Burchell PhD Student.* Her research will investigate shellfish resource use and seasonal settlement strategies in the vicinity around Namu on the central coast, and the Dundas Islands on the north coast. Her research will combine growth increment analysis and isotopic profiles of the butter clam *Saximus giganteus*, to understand local histories of shellfish use. Growth increments can reveal patterns relative to the intensity of shellfish gathering practices. Based on the frequency of clams exhibiting a specific type of growth, either mature or senile growth, the relative intensity of shellfish gathering practices can be inferred. Stable isotope profiles of oxygen and carbon are used to identify the

season of death, or collection of shellfish, and therefore season of site occupation. This research aims to interpret patterns of seasonal shellfish collection, and place sites within the larger framework of seasonal settlement systems.

*Jodi Lynn Barta, PhD.* Jodi's research employed ancient DNA genetic analyses of pre-contact dog bone assemblages. These assemblages serve as proxies of their closely associated human populations in studies of interaction patterns along the Northwest Coast and adjacent interior Plateau. Her analysis includes data from eleven archaeological sites ranging from Haida Gwaii in the north, to the Gulf of Georgia in the south, and east into interior at Keatley Creek. The resulting genetic data are used to address questions of regionally specific genetic variants, genetic change over time at a particular site, site use and seasonality. The discovery of a Northwest Coast specific genetic variant that accounts for over 40% of the individuals sampled, and is no longer present in modern dog populations, sheds light on the impact of European contact on the dog populations in this region. Further analysis is planned to expand the sample size within sites and to include in this project other Northwest Coast archaeological sites of interest. For more information contact Jodi at bartajl@mcmaster.ca

*Paul Ewonus, MA Student.* His current research is centered in the southern Strait of Georgia of southwestern BC, in the traditional territory of the Hul'qumi'num Coast Salish Nation. He is conducting detailed zooarchaeological analysis of several sites, with an emphasis on the Dionisio Point site (DgRv 3) on Galiano Island. The Pender Canal site (DeRt 1) is also a subject of additional faunal study as part of detailed site characterization. His research focuses on the investigation of pre-contact subsistence and settlement patterns that includes evidence from artifacts and site features. This research intends to address the rhythms of past daily life and seasonal movement through this coastal and island landscape. In addition to research in the southern Gulf Islands, he will continue his involvement in fieldwork on the central coast of BC. During the past two field seasons he worked with Dr. Aubrey Cannon and the Wuikinuxv Nation to map and sample shell midden sites in

the vicinity of Rivers Inlet. He has also participated in several field projects in and around the Broughton Archipelago. He is beginning his PhD research this fall at the University of Cambridge, England.

*Brandi Lee MacDonald, MA Student.* Brandi's multidisciplinary research will focus on the analysis of ochre from a range of site types on the central coast of British Columbia. Her goal is to use neutron activation analysis (INAA) to identify and source ochre samples. This technique is being used to identify the elemental composition of the samples, so she will be able to identify variation in types and preparation methods for use. Interpretation of these materials will be aided by ethnographic documentation that suggests it plays a role in social networks of trade of this material among and between prehistoric communities. This will allow her to ultimately present a clearer understanding of changing patterns of ochre use and collection over time. She is currently considering expanding her research to include other areas along the Northwest Coast. If anyone has any ochre from archaeological, ethnographic contexts or information on contemporary use and is willing to contribute to this research, please feel free to contact her at, macdonbl@mcmaster.ca

*Andrew Kingston MSc Student (Geology).* Andrew's research is focused on understanding climate change through examination of archaeological deposits along the Northwest Coast. The site of Namu offers a unique opportunity to examine past climates since it has 11,000 years of continuous occupation. His research will focus on using stable isotope geochemistry of clams from the extensive midden deposits at the site. Clam stable isotope geochemistry is controlled by seasonal variations in rainfall and temperature. Therefore by using multiple clam specimens of various ages we can elucidate climate change. Since the significant clam deposition has occurred over the past 6,000 years within the site, a climatic record is being produced that indicates a significant degree of change in the regional climate.