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Paper Abstracts

Abedin, Zeeshan (Archaeological Services, Inc.), Martin S. Cooper (Archaeological Services, Inc.), and Ronald F. Williamson (Archaeological Services, Inc.)

A Tale of Three Municipalities: Envisioning the Future through Aboriginal Engagement (Friday, Community, 4:20-4:40pm, Suite 300)

Archaeological Services Inc. (ASI) has been involved in the Aboriginal engagement process for numerous municipalities going through various stages of planning including the City of Regina, the District Municipality of Muskoka and the Regional Municipality of York. Despite differing circumstances, the Aboriginal communities were asked about their overall vision for the respective municipalities, or more accurately, their traditional territories, with emphasis on their cultural heritage. This paper will compare and contrast the Aboriginal engagement processes and their impact on the outcomes. The emerging role of Aboriginal peoples in guiding the development of new or revised municipal policies with respect to their cultural heritage and the current trends of Aboriginal engagement within the municipal policy-making context will be explored.

Abel, Timothy (Jefferson Community College) and Rudy Fecteau (R.D. Fecteau and Associates)

Plant Remains from the St. Lawrence Site: An Early 16th Century St. Lawrence Iroquoian Site in Jefferson County, New York State (Thursday, Floral and Faunal, 1:40-2:00pm, Prince of Wales)

The St. Lawrence site (NYSM 3499) is an early 16th century fortified St. Lawrence Iroquoian settlement in the Town of Clayton, Jefferson County, NY. The village, one of the last to be occupied in Jefferson County, was just under a hectare in size. Excavations were conducted there from 1994-1999 by the Thousands Chapter, NYSAA under the direction of David Fuerst and Timothy Abel. In 2011, 37 light fraction flotation samples collected by Abel from six features were analyzed by Rudy Fecteau. Ubiquitous amounts of maize, beans, sunflower and squash were identified along with numerous native plant species. Tobacco was also identified in large quantity, perhaps the largest in New York State. These results will be discussed in light of their economic, social and political implications.

Ahmed, Namir (see Ferris, Neal)

Ahmed, Namir (Sustainable Archaeology, University of Western Ontario)

Implications of Large Scale Cultural Material Digitization (Saturday, Virtual, 10:40-11:00am, Prince of Wales)

Wide scale comprehensive research and public engagement with the past are two of the greatest challenges facing Archaeology today. Institutions have been slow to adapt to society's expectations of instant information and engagement. How do we provide this but still allow researchers, historians and curators the ability to maintain priceless artifacts for future generations while also making the resulting datasets associated with those artifacts widely available?

Sustainable Archaeology at the University of Western Ontario and the Museum of Ontario Archaeology has developed a sustainable strategy by digitizing mass volumes of archaeological material through large-scale scanning pipelines and techniques. More importantly the SA is applying the 'digital assets' acquired as a result in both a public and research context. This paper will outline the digitization process while making a case for the broader adoption of 3D digitization in order to allow for large-scale 'Big Data' research and wider public engagement.

Al-Abodi, Ahmad (see Al-Daire, Mohammad)

Al-Daire, Mohammad (King Saud University) and Ahmad Al-Abodi (King Saud University)

Continuity of Settlement in Al-Ula Region –North – Western Saudi Arabia (2.ed Millennium BC. Tell present) (Saturday, Old World II, 2:00-2:20pm, Duke of Connaught)

The archaeological fieldwork of the department of Archaeology at King Saud University – Saudi Arabia, concentrates on excavating two main sites in Al-Ula region in north-western Saudi Arabia: Dadan's, the capital city of both Arabian Kingdoms Dadanites & Lihyanites; and Al-Mabeyyat, the Islamic site of (Gruh). The Nabataean site of Al-Hijr (Madain Salih) and the site of Al-Ula located within the same area too. The area is surely considered to be one of the world richest area showing a massive quantity of rock paintings and lot of inscriptions of different periods beside the archaeological record excavated.

The archaeological excavations at Dadan shows that the settlement goes back to the early second millennium BC and lasted till the first century BC. The site was never settled in later times. Then the settlement moved to the Nabataean Higranum (12 Km to the north of Dadan),and lasted till the early third century AD. The site of Al-mabeyyat and then Alula appeared in later times.

It is worthy remarkable, that none of the four above mentioned site was re-inhabited again. The people of the area preferred to construct new site, of course getting the benefit of the old sites. This paper is going to discuss in one hand the reasons of the discontinuity of the settlement at the one site and in the other hand the continuity of the settlement at the area.

Allan, Pat (Sam-Whet Consulting)

A 20th century Mi'kmaq Site on the Pokemouche River, northeastern New Brunswick (Thursday, Hist Arch, 11:20-11:40am, Windsor)

During a recent archaeological impact assessment of a Pokemouche River bridge crossing location, a small assemblage related to a 20th century Mi'kmaq occupation was recovered. The historical background of the land as well as the location and types of artifacts found offer a glimpse of Mi'kmaq economic and technological adaptation. We also have evidence of the Mi'kmaq persisting to use lands along this river even after their Pokemouche Reserve was dramatically reduced in size through 19th century Land Grants. The CkDf-32 site offers a reminder that even the smallest and most recent of archaeological sites can provide useful insights for both archaeologists and First Nations.

Al-Theeb, Solaman (King Saud University)

Jausen- Savignac 4 Minaean Inscription: A New Reading (Saturday, Old World II, 2:20-2:40pm, Duke of Connaught)

Madain Salih is a city which dates to the Neolithic times, it has gained, since the eighteenth century, the concern of the travelers due to its importance and its role in the regional history. The importance confirmed by the archaeological excavations in the site and also through the scholars studies which they were mostly done by Western researchers. These studies indicate not only the importance of the city, but the huge cultural role played by the city and its inhabitants.

Therefore we are going to throw light in:

- Recent studies in the field of exploration at the site.
- Brief study of the Minaean inscriptions at the site.
- Studying the inscriptions vocabulary and personal names and comparing them with the other ancient languages.
- Studying the political, social and religious importance of this inscription.

The thing which encouraged me to re-examine these inscriptions is my visit this summer to "Madain Salih", where I was able to photograph the inscription no. 4, which was studied and published by Jausen and Savignac in "1914"; The new picture indicates the need to correct the reading.

Amundsen, Butch (Stantec)

Run with the Dogs, Don't Ride the Sleigh. An Archaeologist's Reflections on the Oral Tradition and Cultural Resource Management (Friday, Oral Trad., 3:20-3:40pm, Windsor)

Amundsen-Meyer, Lindsay (University of Calgary)

Modeling Land Use on the Northwestern Plains: A Geographic Information Systems Approach (Saturday, Spatial, 9:40-10:00am, Windsor)

At present, two competing models, ecological and ideological, have been proposed to explain the spatial arrangement and distribution of archaeological sites on the Northwestern Plains. This paper addresses the validity of each of these models using a case study from Southern Alberta. First, a number of statistical methods which test for spatial clustering are used to determine if there is a patterned distribution of archaeological sites on the landscape. Density analysis is then applied within a GIS to determine where archaeological site clusters are located on the landscape. Following this, a number of GIS methods are used to relate site clusters to landscape features relevant to both models and to create a land use model for the region.

Anselmi, Lisa Marie (SUNY, Buffalo State)

A Brief Review of the Copper-Base and Ferrous Metal Assemblages Recovered from the Ball Site (Friday, Ball Site, 10:00-10:20am, Suite 300)

The use of copper-base and ferrous materials by Indigenous groups following their initial contact with Europeans has been extensively documented in both the ethnographic and archaeological records. The introduced copper-base materials, chemically distinct from native copper, were brought to the New World by fishermen, whalers, explorers and traders as kettles and sheet material. The ferrous objects were introduced primarily as axes, knives and awls. During the Early and Middle Contact Periods, Native peoples throughout Northeastern North America

used these European-introduced metal trade goods as sources of raw material for the production of forms such as projectile points and beads. This paper focuses on the metal assemblages recovered from the Ball site. It reviews the manufacturing techniques used by metalworkers at the site, the forms created and the distribution of these materials across the site.

Anstey, Robert (see Wells, Patricia)

Armstrong, Chelsey Geralda (Simon Fraser University)

Hazelnut (Corylus cornuta) on the Northwest Coast: An Ethnobiological Profile (Saturday, Poster Session B, 9:00am-12:00pm, Foyer)

Traditionally, wild and managed plants were central to Pacific Northwest Coast peoples diet, technology and worldviews. However, shifting lifeways imposed by colonialism has changed the way plants are perceived and remembered. By focusing on *Corylus cornuta* this research will integrate various ethnobiological sub-disciplines to better understand the cultural and ecological significance of hazelnut on the Northern Northwest Coast.

There is a weak ethnographic record of hazelnut in British Columbia, however shell fragments (nut and pericarp) are ubiquitous archaeologically. Furthermore, linguistic evidence supports the hypothesis that a disjunct population of hazelnut in the Gitksan and Wet-suet'en region of British Columbia was brought from the Salish region and potentially managed for food and fuel by Northern peoples. Combining this evidence with ethnographic information, modern and ancient genetics, archaeological surveys, and ethnoecological studies, we will gain insights into the multi-dimensional ways in which peoples interacted with and related to their natural world.

Aylesworth, Grant R. (see Suttie, Brent D.)

Banning, Ted (see Hawkins, Alicia)

Barry, Jacqueline (Lakehead University), Carney Matheson (Lakehead University), and Scott Hamilton (Lakehead University)

Identifying Archaeological Residues from Copper Artifacts to Infer Function and Use (Friday, Poster Session A, 9:00am-12:00pm, Foyer)

The earliest known use of copper in North America dates to the Archaic period, and is centred in the upper Great Lakes region. The procurement and working of copper reflects a major technological innovation, and required far greater energy expenditure. Diverse copper implements have been recovered, and include awls, scrapers, gaffs, gouges, adzes, celts, knives and spearpoints. While their form suggests their utilitarian function, such implements remain the subject of much speculation and uncertainty. This reflects the generally poor depositional context, and minimal associated information regarding economy, settlement system and temporal range.

This feasibility study seeks to address this uncertainty by evaluating the utility of residue analysis as a means of inferring tool function. About a dozen copper artifacts recovered from disturbed contexts in the Dog Lake area (Thunder Bay) were examined. Preliminary research focused on microscopic examination of the tool surfaces to identify loci where a variety of organic residues remain intact. After residue extraction, they were subjected to a series of characterization methods using GC-MS and other biochemical tests. At issue is whether extraction

and biochemical characterization protocols will be able to identify modern contamination, and differentiate it from residues of archaeological interest. Since copper salts can preserve macrobotanical remains, we are also seeking organic materials adhering to the tools that might enable AMS dating to further clarify the antiquity and duration of this copper working tradition.

Bathurst, Rhonda (see Ferris, Neal)

Beales, Eric (Trent University; Toronto and Region Conservation Authority)

Room to Grow: A Landscape Ecological Analysis of Village Location Selection and Maize Horticulture in Southern Ontario (Thursday, Woodland, 1:40-2:00pm, Suite 300)

Many researchers have noted the overwhelming correspondence between village locations in Southern Ontario and the presence of land suitable to maize horticulture. A question which arises is whether this relationship between site location and maize productivity began with the earliest villages or grew through time as reliance on maize increased.

Using the locations for 191 village sites in Southern Ontario throughout the agricultural period (ca. AD 600 – 1650), divided into three temporal groups, a formal test is constructed to evaluate site selection trends through time. This is approached through two complimentary methods: an evaluation of the primary ecological variables driving site location selection using Maximum Entropy (MaxEnt) modeling; and subsequently, a test of the relationship of these key variables between periods using non-parametric tests of independence.

The results of this analysis demonstrate that change through time is observed in accordance with a greater dietary reliance on maize, however, this is largely concerning the relative importance of a limited set of variables which show no change through time.

Bear, Stacy (see Denton, David)

Beardsell, Robert J. (University of Manitoba) and S. Brooke Milne (University of Manitoba)

Microblade Technology in the Boreal Forest of Northern Manitoba: Local Innovation or Evidence for AST? (Thursday, Lithics, 9:40-10:00am, Duke of Edinburgh)

The Grandfather Quarry (HbMd-4) is located in the upper Churchill Basin region of Manitoba's Boreal Forest and was investigated in 2008 and 2009 by a research team from the University of Manitoba, the Manitoba Museum, and community members from Granville Lake and Okawamithikani First Nation. Beardsell analyzed the lithic assemblage recovered from the site and in so doing, identified remains indicating the use of microlithic technology in at least two excavation units. The occurrence of these artifacts, which include microblades and micro-cores, in this region of the Boreal Forest is puzzling since the only culture known in the province to use a microlithic industry is the Arctic Small Tool tradition (ASTt) yet their sites are found much farther North in Manitoba's Arctic regions. This paper describes the microlithic remains from the Grandfather Quarry and contemplates their occurrence this far south in Manitoba's Boreal Forest.

Beaudoin, Matthew (Timmins Martelle Heritage Consultants Inc.)

Historical Archaeology: Helping to Remember Forgotten Pasts (Thursday, Hist Arch, 9:00-9:20am, Windsor)

The reality of the past is that it will be forgotten. No point in time or space is immune from this fact; however, when a point is present, forgotten, and remembered can say a lot about what is being valued at each point along the continuum. This paper will explore three Canadian examples of collective forgetting of historically important 19th century sites: the Davisville settlement, the Fugitive Slave Chapel, and the Livingstone Academy. These three sites were important points of Indigenous, Black, and Euro-Canadian history, and while they each were remembered within segments of local communities, they were lost to the more general knowledge of 19th century southwestern Ontario. In helping to recover and remember these sites, historical archaeology has an important role to play in the creation and re-creation of these points in time within the Canadian master narrative.

Beaudoin, Matthew (Western University; Timmins Martelle Heritage Consultants Inc.), Brittany Cortese (Western University), Joshua Dent (Western University), Melissa Echlin (Western University), Kim Eldridge (Western University), Matthew Haruta (Western University), Olivia McKenzie (Western University), Phillip Mock (Western University), Breanne N. Reibl (Western University), and Kayley E. Sherret (Western University)

The Livingstone Academy I Presume: The Work of Western's Field Methods Course (Saturday, Poster Session B, 9:00am-12:00pm, Foyer)

During the summer of 2013, a CRM project conducted by Timmins Martelle Heritage Consultants Inc. (TMHC) identified a 19th-century site alongside the historic Longwoods Road. Through extensive background research, it was determined that this was the locale of the former Livingstone Academy; an elite Upper Canadian boarding school that operated between 1832 and 1857. TMHC was able to preserve the portion of the site within the existing roadway allowance, but the majority of the site was situated within the property of an active heritage farm. Throughout this process, the property owners identified several spots on the property where they have recovered an abundance of historic artifacts, and indicated that they would be interested in having some additional archaeological research completed on the property.

That fall Western's Field Methods Course was able to return to the site and used it as a research and teaching opportunity. This poster highlights the background research, field mapping, archaeological investigations, and geophysical techniques conducted throughout the course to create a fuller picture of the former Livingstone Academy.

Beaudoin, Matthew (see Timmins, Peter)

Beaulieu, Sarah (Simon Fraser University)

Remembering the Forgotten: Archaeology at the Morrissey WW1 Internment Camp (Saturday, Poster Session B, 9:00am-12:00pm, Foyer)

Many Canadians are aware of the Japanese Internment Camps from WW2 but very few are aware of the concentration camps that Canada built during WW1. Between 1914-1920, Canada arrested and interned 8549 Austro-Hungarians, Germans and

Turks and in 1954, the Canadian government destroyed most of the documentary records pertaining to the internment camp operations. Morrissey Internment Camp is situated in the abandoned coal-mining town of Morrissey, British Columbia. It was opened in July 1915, closed in October 1918 and housed a continuous population of 3-400 internees.

The Canadian prisoner of war camps were initially known as concentration camps. However, with the aftermath of the Jewish concentration camps in WW2, the Canadian government relabeled them as internment camps in order to avoid stigma and comparison - essentially removing them from the historical radar. Today, the local population around Morrissey commonly refer to the Morrissey Internment Camp as a local retreat that housed Austrians during the Great War. I am interested in examining how perceptions of the Morrissey Internment Camp have shifted over the past century.

With a dearth of documentary evidence and fading memories, historians have almost completely exhausted their research and to date, there are only two known excavations that have taken place on Canadian WW1 Internment sites. Through a combination of interviews and an examination of the historical and material record, archaeology can uncover pieces of this history that until now were thought to have been permanently erased.

Beaulieu, Terry (University of Calgary)

The Currency of Cost: GIS Cost Surface Analysis and Environmental Bias (Saturday, Spatial, 10:00-10:20am, Windsor)

GIS techniques and applications have gained wide spread acceptance within archaeology for their ability to effectively model past populations. One of the more common methods employed in such GIS analyses is that of least cost path analysis, and one of the primary, though often under scrutinized components of such analyses, is the cost surface raster. Some researchers, however, have criticized the use of GIS applications in general, and cost surface rasters in particular, suggesting they are often uncritically employed and result in archaeological models that promote an excessive environmental determinism. Such accusations have their root in the manner with which most cost rasters are created. Despite the recognition that appropriate cost surface pixel values are the key to effective cost surface analyses such as least cost path analysis, the currencies of most cost surface rasters tend to consist primarily of environmental variables. While social and cultural phenomena are regularly cited as important factors for the modeling of past populations, rarely are they included in the construction of cost surface rasters. This paper examines some of the sources of environmental bias prevalent in many archaeological applications of GIS analysis that employ cost surface rasters for the modeling past human populations. It explores the introduction of cultural variables into the currencies that comprise cost surface rasters, and examines the affect of employing those currencies in GIS techniques such as least cost path analysis.

Beanlands, Sara (see McNeill, Duncan)

Beckwith, Sue (University of Toronto)

Spatial Analysis and Social Interaction at Pot Creek Pueblo, New Mexico (Saturday, Spatial, 11:00-11:20am, Windsor)

Spatial analysis should extend beyond the analysis of the production of space to include the social construction of space and to recognise that the built environment is transformed through social interactions to produce socially meaningful places. The

continuous process of social exchanges, memory creation, and political contestation within a physical setting leads to the socialization of the spatial environment. The built environment, as expressed by the layout of a settlement, can encourage or inhibit social interaction. The distance from one activity to another can affect levels of visibility and invisibility within a space and can influence the types of social encounters that can occur.

Spatial analysis was used at Pot Creek Pueblo, New Mexico to identify areas of visibility to understand behavioural affordances, privacy, and social interaction and how these parameters changed through time. Multiple three-dimensional computer models of Pot Creek compared the taskscapes surrounding the everyday activity of grinding corn from various locations. Patterns of visibility adjacent to corn grinding locations were assessed in order to understand transforming social relationships for both the corn grinders and other members of the community and how these changed through time as the spatial configuration on the settlement transformed. Power relations, as expressed through gender interaction, economic control of labour and material, and the experiential use of space, were found to be affected by modifications to the built environment at Pot Creek.

Bell, Trevor (see Wells, Patricia)

Bennett, Gjende (Lakehead University)

Biface Manufacture in the Lakehead Complex, Observations from a Large Assemblage at the Mackenzie 1 Site (Friday, Boreal, 11:00-11:20am, Prince of Wales)

The Late Paleoindian Mackenzie 1 site (DdJf-9) offers a unique perspective into the reduction sequence used to manufacture the Lakehead Complex projectile points as well as other bifacially chipped formal tools. The assemblage consists of 1452 bifacially chipped artifacts (to date). Of these, 544 are formal tools with the remainder exhibiting traits suggesting stages of the biface reduction sequence that ultimately led to formal tools. Due to the large sample size from the Mackenzie 1 site, examination of the bifaces lost or discarded at the various stages of manufacture offers clear insight into the production sequence and how it compares to the established conceptual models developed for other Paleoindian complexes. This includes more comprehensive understanding of when discrete tool forms, such as the adzes, diverge from the sequence. Additionally a discrete flake/blade production trajectory is identified that is the preform style common to many of the projectile points. Analysis of this assemblage also allows exploration of possible decision-choices or cognitive behaviors used by the Paleoindian knappers in dealing with problems inherent in the raw material.

Benson, Emily (Simon Fraser University)

Recurrent Themes in Conflicts Over Cultural Resource Management Archaeology in British Columbia, 1994-2014 (Saturday, Poster Session B, 9:00am-12:00pm, Foyer)

In the past two decades, there have been numerous conflicts over cultural resource management archaeology (CRM) in British Columbia. These conflicts have taken place in relation to the disturbance of a variety of types of cultural heritage sites through development and CRM activities, including Indigenous peoples' ancestral burial sites. This poster examines the concerns and perspectives of descendant communities and other parties in such conflicts. It presents the results of a thematic analysis of information from case study research into disagreements over development activities and CRM archaeology involving pre-1846 burial sites. The study focuses on several conflicts that took place between 1994 and 2014 in southwestern British Columbia. The

data for this study derives from a variety of sources, including: social media, traditional media, public speeches, legislative debates and litigation. The objectives of this research were to gain an understanding of the perspectives and interests of multiple “stakeholders” in such incidents, with a focus on the concerns of descendant communities, and to identify major issues and recurrent themes in such conflicts. The identification of these themes and issues offers a starting point for considering how archaeologists might contribute to addressing these issues to improve relations and practices in CRM archaeology. While this study is focused on British Columbia, the themes identified in the course of this research are likely to have relevance to CRM practice in other settings.

Bereziuk, Darryl (Archaeological Survey, Historical Resources Management Branch, Alberta Culture) and Robin Woywitka (Archaeological Survey, Historical Resources Management Branch, Alberta Culture)

Understanding Geographical Constraints on Human Land Use Patterns in the Eastern Slopes of Alberta (Thursday, Various Papers II, 11:20-11:40am, Duke of Edinburgh)

Most cultural resource management (CRM) projects undertaken in the eastern slopes of Alberta are focused on spatially constricted developments such as road alignments, forestry cutblocks, petroleum pads and pipelines. Often the evaluation of archaeological potential for these projects is focused on geographic constraints in the immediate vicinity of the development (e.g., proximity to water, local topography and soil properties). This paper examines broader scale geographic characteristics that influence the movement of people through the eastern slopes, focusing on the connections between hinterland site locations and resource procurement destinations (e.g., major lakes, lithic sources, alpine environments). Several case studies will highlight the use of digital terrain analysis and lithic raw material studies in identifying links between site location and resource procurement destinations. Recommendations regarding implementation in CRM projects will be forwarded.

Berry, Mark D. (see Peuramaki-Brown, Meaghan)

Bikoulis, Peter (University of Toronto)

Missionary Positions: Religious Networks and Institutional History in Modern Alaska (Saturday, Circumpolar, 4:00-4:20pm, Duke of Edinburgh)

Contact between Russians then Americans and the indigenous peoples of Alaska in the modern period has been the subject of frequent study. However, few studies have investigated the way that emergent religious networks influenced both Alaska’s physical and cultural landscape. Analysis of the historical development and spatial location of religious structures is combined with the sociological method known as Social Network Analysis in order to understand better how these religious institutions shaped late nineteenth and early twentieth century Alaska. Graphs of both Russian Orthodox and American Protestant historic buildings are constructed from the National Parks Service database of historic buildings. Attention is placed on the changing role of churches as first the materialization of Russian Imperialism, and then as a hegemonic force within American Alaska. These graphs are used to examine the position and role of historic religious buildings in creating and maintaining different social structures through time. Network measures are used to explore the structural relationships between actors within each graph, and to compare the similarities and differences between the two networks. From the results, new understandings emerge from the application of fresh methodologies concerning

the ways in which inter-regional interaction and religion helped to structure the geographic and symbolic landscape of this Arctic Archipelago.

Bilton, David (University of Toronto)

Gonna Change My Way of Thinking: A New Prehistory of the Salish Sea (Thursday, Old Data, 2:00-2:20pm, Duke of Connaught)

In the Salish Sea region of British Columbia and Washington State, a prehistoric entity known as the Marpole culture (c.2500 to 1200 cal B.P.) is seen to contain the earliest evidence for pronounced social inequality. This culture has also become a prime anthropological example of the existence of social and cultural complexity among prehistoric hunter-gatherers. However, a single, rather obscure, analysis of the prehistoric burial data forms the foundational link between Marpole and pronounced social inequality. Furthermore, this paper does not include decades of recent research, including the excavations of a number of bead-rich burials that pre-date Marpole and challenge the conclusions of the analysis. Additionally, recent analyses of faunal data have not provided empirical support for the development of Marpole’s theoretical economic underpinning – salmon specialization. This paper will propose an updated prehistory of the Salish Sea and review the new and improved data which justify its necessity.

Birch, Jennifer (University of Georgia) and Jacob Lulewicz (University of Georgia)

Late Woodland Settlement Dynamics in Eastern North America: Results of a Multi-Method Geophysical Survey in the Deep South and Applications to Canadian Archaeology (Thursday, Geophys, 10:00-10:20am, West Ballroom)

Our investigations of the Raccoon Ridge site in Morgan County, Georgia, began with the premise that limited knowledge of Terminal Late Woodland settlement patterns constrains our ability to understand the cultural frameworks that gave rise to complex organizational structures in the Mississippian period. The aim of the project is to map and expose the full settlement pattern of a terminal Late Woodland village situated between two major Early Mississippian polities. We employed a combination of controlled surface collection, shovel testing, magnetic susceptibility, magnetic gradiometry, and the mapping of soil profiles and phosphates to identify areas of potential precontact settlement remains and to target areas for excavation. Our investigations produced evidence for multiple occupational loci. This paper will present initial insights into local variability in the Late Woodland-Early Mississippian transition in the Georgia Piedmont, an evaluation of the specific methods used vis-à-vis the goals of the project, and a discussion of the applicability of these methods to Canadian Archaeology.

Bishop, Katherine (McMaster University; Timmins Martelle Heritage Consultants Inc.) and Tracy Prowse (McMaster University)

Penning and Manuring: Examining Animal Husbandry and Landscape Use in Roman Italy (Saturday, Isotopes, 9:40-10:00am, West Ballroom)

There are various environmental niches that influence stable isotope values of plants, herbivores, and their predators. Previous stable isotope analyses conducted on animal remains in Roman Italy (100 BCE - 700 CE) have served primarily as isotopic averages for available diet in order to be compared with the human data. A directed stable isotope analyses of faunal samples

can provide considerably more information than solely acting as a data baseline for human studies. Recent analyses investigate the impact of ingesting manured cultigens on the carbon and nitrogen values in faunal bone collagen. This paper examines how $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ values have been used to examine manuring and penning in archaeological contexts outside of Roman Italy. Based on the isotopic trends identified in past studies, this presentation will reevaluate previous interpretations of faunal isotopic data from the Italian sites of Isola Sacra (100 - 300 CE), and Velia (100 - 300 CE). In particular, high nitrogen values in herbivorous animals suggest that manured pastures were commonly used for feeding animals (e.g., goats, sheep) at both sites. In contrast, the $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ values of cattle and swine are different at each site and are consistent with different animal husbandry practices (i.e., penning vs. open pasturing). Studies like these are important because they increase the knowledge related to human subsistence and agricultural practices and provide an essential database with which to build future faunal and human studies.

Blair, Susan E. (University of New Brunswick)

The Development of Early Woodland Concepts for the Creation of Objects at Metepenagiag (Friday, Technology, 3:40-4:00pm, Duke of Edinburgh)

Technological traditions for the production of stone tools in the Maritime Peninsula of northeastern North America have often been examined through a series of comparisons and contrasts with adjacent areas, often as proxies for economic behavior, such as exchange and interaction, or as a set of optimal strategic solutions for satisfying material wants. These views have been supported by analyses of sites and landscapes that have emphasized cultural discontinuity, external cultural influences, and functional classifications. Recent examinations of key places, such as the community of Metepenagiag in north-central New Brunswick, have begun the process of rethinking the relationship of place and technology to locally grounded, historical processes, and of attempting to weave together regional integration with threads of continuity and memory. These new perspectives actively break down traditional typological views, and rework the meanings of objects as media for expression and negotiation. This paper explores this process of re-evaluation with reference to the production of locally made objects that rework forms and styles from outside the region, and reveal new ways of considering the role of objects and artifacts in regional analyses.

Blennerhassett, Thomas (see Peuramaki-Brown, Meaghan)

Boisvert, Marie-Eve (see Gates St-Pierre, Christian)

Bouchard, Stefan (Lakehead University)

Micro-Analysis of Two Stone Tools from St. Ignace Island (Saturday, Poster Session B, 9:00am-12:00pm, Foyer)

The Lake Superior Archipelago is situated along the southern edge of the Nipigon Bay. It extends from Rosspoint southwest across the bay and runs parallel to the Black Bay Peninsula, ending near the tip of the Sibley Peninsula. The archipelago's unique location allows for paddlers to bypass the Nipigon Bay with minimal exposure to open water. The largest island within this formation, St. Ignace Island, is located east of the Black Bay Peninsula and approximately 20km south of the mouth of the Nipigon River. The archipelago, however, for various reasons has yet been subject to archaeological scrutiny. The following poster is the first analysis of a lithic chopper and knife recovered from St. Ignace Island. Micro-analytical techniques, such as light microscopy and biochemical testing, were employed to confirm its use. The significance of this study is not in the tools themselves, but rather that it is the beginning of archaeological

investigation into the indigenous use of the Lake Superior Archipelago.

Bower, Megan (Memorial University of Newfoundland) and Vaughan Grimes (Memorial University of Newfoundland; Max Planck Institute for Evolutionary Anthropology)

Investigating the Potential of Strontium Isotope Analysis to Detect Archaeological Migration Events in Southern Ontario (Thursday, Central ON, 11:00-11:20am, Duke of Connaught)

The movement of past populations such as the Huron-Wendat, a Northern Iroquoian population in southern Ontario, has been of interest to researchers for over sixty years. Coalescence, fission, post-marital residence patterns and the origins of local indigenous populations are common topics of investigation that stimulate lively debate. Recently, researchers have made use of strontium isotope analysis to complement the existing archaeological, historical and ethnographic evidence available on these topics for the Huron-Wendat. However, further research is needed to provide a more comprehensive image of these phenomena. Here we present a new study that expands upon our current knowledge and provides additional strontium isotope data from southern Ontario. Using white tailed deer teeth recovered from nine archaeological sites located throughout southern Ontario, we assess the local isotopic variation and establish a preliminary baseline of biologically available strontium isotope values for this region. These data enable isotopic characterization of geographic locations that can subsequently be compared to human strontium isotope data and allow for more accurate testing of hypotheses about mobility and other associated topics in southern Ontario.

Bradley, James W. (see Lothrop, Jonathan C.)

Brake, Jamie (Nunatsiavut Government)

Opportunities and Challenges for Policy and Legislation in Nunatsiavut (Friday, Heritage, 11:00-11:20am, Windsor)

The Labrador Inuit Land Claims Agreement (LILCA) gives the Nunatsiavut Government (NG) rights and responsibilities related to archaeological resources found in the Labrador Inuit Settlement Area after the effective date of the agreement. The situation is complex; three Permitting Authorities have shared roles, title and management responsibilities in the Labrador Inuit Settlement Area outside of Labrador Inuit Lands, while only one has title and management responsibilities within Labrador Inuit Lands and the Inuit Communities. As a result of the LILCA, the NG can make laws regarding archaeological activities, archaeological resources and certain other cultural resources in Labrador Inuit Lands and the Inuit Communities. The NG is now exploring long term, multi-disciplinary research which will help inform the development of this legislation.

The power to enact legislation presents a tremendous opportunity to create a situation where the archaeological resources of Nunatsiavut are managed well through robust Inuit law. Up to this point the implementation of the chapter on archeology in the LILCA has been quite smooth in general. On the other hand, there have been some significant challenges with implementation, despite the fact that the LILCA itself, and the chapter on archaeology within it, have the force of law. There are also potential challenges associated with a government which, by definition, serves a specific cultural and ethnic group, which also has powers and responsibilities for managing the archaeological resources of other groups that are known to exist within its geographical jurisdiction.

Brake, Jamie (Nunatsiavut Government)

Salvaging Labrador's First Snowmobile (Thursday, Hist Arch, 10:00-10:20am, Windsor)

In July of 1927, a group of American scientists based out of the Chicago Field Museum of Natural History arrived at Anaktalak Bay, Labrador and began construction of a research station at a site approximately 30 km southwest of Nain. This was the second Rawson-MacMillan Sub-Arctic Expedition, named after Henry Rawson, the Chicago banker who funded it, and Commander Donald B. MacMillan, the famous arctic explorer who led it. The purpose of the expedition was to bring scientists representing each of the Field Museum's four main branches of study (anthropology, botany, geology and zoology) to Labrador and Baffin Island where they would conduct scientific research, and make collections to bring back to the museum for study and display. Amongst the items they brought on the journey were a Model T Ford and a kit to turn it into a snowmobile – Labrador's first snowmobile. Expedition members used the machine to move equipment and materials from the shore to their research station during the summer and fall, and they converted it into a snowmobile in the winter months for traveling, hauling firewood and for pleasure. Photos, silent film and journal entries provide us with information on the Model T, and insight into how local people reacted to it. It is a wonderful, and well documented, piece of Labrador history. In October of 2013 the Nunatsiavut Government began fieldwork aimed at recovering the remains of this remarkable machine.

Brandon, Nicole (Timmins Martelle Heritage Consultants Inc.)

Breaking New Tools: Euro-Canadian Use of Glass Shards (Thursday, Hist Arch, 2:40-3:00pm, Windsor)

Flaked and utilized glass shards have been on the periphery of archaeological discussion for some time, yet rarely receive more than passing attention. Careful examination of glass shards recovered from Euro-Canadian sites in southern Ontario revealed that their use as tools is more common than previously thought. A review of the literature demonstrates that the employment of glass tools is not limited by geography, cultural background or time period. Archaeological examples from Ontario suggest that glass shard tools may have been used to perform a variety of tasks outside and inside the home. This paper explores the use of glass tools by Euro-Canadians and establishes the regularity of that employment. It is hoped that the presentation of this data will generate discussion and further research into the use of glass shards as tools.

Brink, Jack (Royal Alberta Museum)

A Closed Spherical Spacetime of Zero Radius (Friday, Oral Trad., 5:20-5:40pm, Windsor)

Brooks, Meagan (Wilfred Laurier University)

So Many Artifacts, So Little Time: Teaching Archaeological Collections Management to Undergraduates at Wilfrid Laurier University (Saturday, Various Papers III, 1:40-2:00pm, Duke of Connaught)

This year the Department of Archaeology and Classical Studies at Wilfrid Laurier University provided an undergraduate Archaeological Collections Management course. The guiding principles of the course were threefold: The future and storage of archaeological materials is a pressing issue in archaeology; many archaeologists receive little training in collections care; and many

of our graduates are following career paths within the museum and consulting sectors. To this end the course was designed to be as hands on as possible. Students evaluated and rehabilitated a collection provided by a CRM company, as well as created risk assessment and condition reports for the department's collections. This paper will provide an overview of the course and evaluate its usefulness not only for teaching archaeological collections management to undergraduates but also in creating partnerships within the cultural heritage sector.

Brown, Sarah K. (University of California, Davis), Christyann Darwent (University of California, Davis), and Ben Sacks (University of California, Davis)

Ancient DNA Analysis of Paleoeskimo and Thule Dog Remains from the North American Arctic (Saturday, Circumpolar, 11:20-11:40am, Duke of Edinburgh)

The peopling of the North American Arctic, occurred in two waves. First the Paleoeskimo people migrated from Siberia roughly 4,000 BP, followed by the Thule people ca. 1000 BP. The Thule people are known for their innovation and rapid colonization of the North American Arctic, compared to small population sizes of the Paleoeskimo. A distinguishing characteristic of Thule culture relative to previous Arctic cultures was increased use of dogs, particularly for dogsled traction. Use of dogs by the Thule is reflected in the archaeological record by a dramatic increase in dog remains in zooarchaeological assemblages. Here, we present results from an Arctic wide survey of over 450 ancient dog samples and analysis of the temporal and spatial distribution of dog remains and their genetic characteristics. We compare diversity of the D-loop region of the mitochondrial DNA in Thule and Paleoeskimo dogs from Siberia, Alaska (Interior as well as Coastal), Canada, Greenland to assess origins, interchange, and changes through time. We show that, similar to their Human companions, domestic dogs colonized the North American Arctic in two waves.

Brownlee, K. (see ten Bruggencate, Rachael)

Burchell, Meghan (Memorial University)

Seasonality and Beyond: Stable Isotope Analysis of Shells in Canadian Archaeology (Saturday, Isotopes, 11:00-11:20am, West Ballroom)

This paper will discuss the current state of shell isotope research in Canadian archaeology by drawing on examples from British Columbia, Ontario, Nova Scotia and Newfoundland. Determining the season of shellfish collection, and by proxy the season of site occupation, is the most common application of stable oxygen isotopes analysis in shell. However, the results from seasonality studies can be used to address a much wider range of questions. These include the development of shell midden sites, subsistence practices, palaeoclimate and shellfish harvesting pressure. In addition to determining precise seasonality estimates using high-resolution stable isotope sclerochronology, combining both stable carbon and oxygen isotopes are effective tools for sourcing shell artifacts. This can provide insight into past trade and exchange systems. As methods for the biogeochemical analysis become more refined, the application of stable isotope analysis in shells has the potential to be applied in broader contexts within Canadian archaeology.

Burchill, Alexandra (Lakehead University)

Plant Microfossil Analysis of Middle Woodland Food Residues, Northern Minnesota (Saturday, Poster Session B, 9:00am-12:00pm, Foyer)

Northern Minnesota lies within the southern edge of the Boreal Forest and, as a result, archaeological sites in this region typically have poor organic preservation and thin, disturbed, stratigraphy. For this reason, little is known about specific plant foods and their importance at many sites. In order to fill this gap, my research focuses on the extraction of plant microfossils (starch, phytoliths and pollen) from carbonized and non-carbonized food residues associated with Middle Woodland (100 BC – AD 500) components. My results show that wild rice was widely consumed during this time along with cultigens such as maize. These surprising results demonstrate the importance of plant microfossil studies as a tool for identifying subtle evidence of wild and domesticated plants in regions characterized by poor organic preservation, small seasonally-occupied sites and other fundamental limitations.

Burke, Adrian (Université de Montréal)

Saint Lawrence Iroquoian Lithic Technology and Raw Material Economy (Friday, St. Lawrence, 3:20-3:40pm, Prince of Wales)

This paper presents new data on the lithic technology and raw material economy of three Saint Lawrence Iroquoian (SLI) villages recently excavated in the upper Saint Lawrence Valley by the fieldschool of the Université de Montréal under the direction of Dr. Claude Chapdelaine. As is typical of late prehistoric SLI villages, the lithic assemblage is very limited, especially when compared to ceramic vessel and bone tool remains. I present the results of the analysis of these impoverished lithic assemblages and address three questions: 1) what is the geologic origin of the raw materials used (raw material economy), 2) are there any identifiable lithic chaînes opératoires (lithic technology), and 3) what was/were the role(s) of lithic tools and debitage in the lifeways of late 14th to early 16th century SLI communities?

Butler, Don (University of Calgary)

Archaeological Spatialities: A Geoarchaeological Example from the Canadian Subarctic (Saturday, Spatial, 10:40-11:00am, Windsor)

Spatialities, or *lived* spaces, have become a widely applied theoretical approach to understanding human interactions with spaces in archaeological research. This paper reviews archaeological approaches to space using Edward Soja's framework of first, second, and thirdspaces. Thirdspace puts space first, re-centering it as an explanatory device, as an active and generative agent in the production of daily life. It is the interaction of the physical, ideational, and lived components of spaces that inform the ordering of behaviour at all scales. These inextricable aspects of space, along with the routinized behaviours they condition, are created and recreated as a result of interactions among the socio-spatial dialectic, reflexive social monitoring, spatial agency, and social memory, among many other things. Such recursive, spatially ordered behaviour is visible in the archaeological record at the site scale as both site structures and landscapes. I support my position using an example from my geoarchaeological research at Taltheilei hunter-gatherer site in the Canadian Subarctic.

Byrne, Bill (formerly Government of Alberta)

If I Had It To Do All Over Again.... (Friday, Oral Trad., 5:00-5:20pm, Windsor)

Bziuk, Peter (see Fisher, Jacqueline)

Cameron, Meaghan (see von Bitter, Robert)

Campbell, Jennifer L. (The State University of New York, Potsdam)

"Collective Heritage": How Does "Canadian" Heritage and Heritage Legislation Intersect with International Initiatives? (Friday, Heritage, 9:00-9:20am, Windsor)

In Canada cultural heritage is administered, managed, interpreted, protected, and presented by a number of bodies. Each of these bodies or in heritage parlance, "stakeholders" operates under the guidance of a series of legislative acts and agreements which speak to local, regional, national, and international heritage agendas. The implementation and engagement with each of these levels of heritage legislation at specific heritage sites depends largely on the "value" ascribed to those locations. How we define heritage and assign value fundamentally shapes how that site, space, location, artifact, or intangible cultural-attribute will be mediated within the network of negotiated heritage valuations. In this presentation I attempt to un-nest the multiple levels of heritage administration within the municipal, regional, provincial/territorial, national, and international networks. Doing so allows for a closer examination of the "production of heritage" and the conflicting messages and mantras of various heritage administrative and legislative groups. The archaeological community has a vested interest in cultural heritage and has traditionally been involved in the administration and management of these resources on the local or perhaps regional level. What has often been lacking in these micro to mid-range perspectives is consideration of what international agreements and treaties might bring to bear on the "management" of heritage presently controlled by the Canadian government. As we experience changes to national legislation it may help to look to the international community and the conventions we are party to as a Nation for guidelines and lobbying points that can re-entrench the principles and responsibilities that should underpin our National legislation and guide our heritage organizations.

Cappella, Katherine (Ontario Ministry of Tourism, Culture and Sport and Tree Time Services) and Teresa Wagner (Alberta & Trent University Archaeological Research Centre)

Ontario's Past Portal: Managing Archaeological Data in the Present for the Future (Friday, Modernization, 1:40-2:00pm, West Ballroom)

In 2013, Ontario's Ministry of Tourism, Culture, and Sport released its first publicly accessible online archaeology portal. Known as PastPort, this system allows users to interact with the provincial government's archaeology program at their convenience through self-service features. Members of the public can apply for a licence to carry out archaeological fieldwork. Licensed archaeologists can notify the ministry about planned archaeological projects, track important reporting deadlines and report on their archaeological work.

A primary objective in the design of PastPort was to increase the efficiency of the provincial government's archaeology program and, as a result, its effectiveness in conserving valuable archaeological resources. PastPort is used by government staff to

administer the province's archaeological licensing program, track archaeological work in the province, manage staff workloads, and integrate archaeological projects into broader heritage and land use planning processes. PastPort helps to address many challenges facing the ministry with regard to its data and record management.

In this paper, we consider the past, present, and future of the management of archaeological information in the province and the important role PastPort plays in it. The process of PastPort's development will be described, as well as the challenges encountered during development, lessons learned, and opportunities for the future. Additionally, the implications of PastPort to the practice of archaeology in Ontario will be discussed, including some less well-known benefits and drawbacks of a system designed for an imagined future.

Capps-Tunwell, David (see Passmore, David G.)

Carter, Michael (Ryerson University)

VFX Methodologies for Scientific Visualization in Archaeology (Saturday, Virtual, 10:00-10:20am, Prince of Wales)

This presentation focuses on engaging with the archaeological landscape by creating a 3D virtual tool-set adopted from Film & Television methodologies in Animation and Visual Effects production called Procedural 3D Modeling; a dynamic building block technique for organically creating digital assets. Specifically designed to allow stakeholders (public, private, academic and descendant) to access a procedural 3D model library in order to build in real-time and within 3D space, interactive visualizations of extant cultural heritage structures. Beyond initially engaging stakeholders to "build" their own archaeological engagement, stakeholders are able to experience the association between the physical structure, spatial relationships and the phenomenological experiences of these archaeological landscapes. These built digital assets can also be reapplied within any numerous engagement tools such as mobile Apps, Internet Websites or even within 3D gaming engines, further extending the narrative beyond the individual's brief but personal archaeological experience.

Carruthers, Peter (Archaeological Services Inc.)

They Say You could Always Hear Her Coming, but Nothing could be further from the Truth (Friday, Oral Trad., 5:40-6:00pm, Windsor)

Carscallen, Charlton (URS Canada Inc.)

How Much is Enough?: Historic Excavations in an REA Context (Friday, Green Energy, 10:00-10:20am, Duke of Connaught)

An analysis of the data yield from excavations of multiple Euro-Canadian sites in a geographically confined area.

Cary, Henry (see Plint, Tessa)

Cesario, Grace (Cosumnes River College) and John Darwent (University of California, Davis)

Men's Houses Are Messy: Evidence for a Karigi Structure on Cape Espenberg, Alaska (Saturday, Circumpolar, 11:40am-12:00pm, Duke of Edinburgh)

During the historic period, the men's house—often termed a *karigi*—was an important component of village life among the Iñupiat and Yup'ik of northwestern and southwestern Alaska.

Although the function and appearance of *karigi* varied between the areas, they were used by men for socialization, storytelling, various ceremonies and rites, toolmaking, and served as hubs of communities. Unfortunately, identifying *karigi* in the archaeological record is not straightforward because many activities undertaken in a *karigi* do not have a basis in material culture. However, there is an exception: tool manufacturing.

Bruce Lutz (1973) identified a *karigi* at the Ungalaqliq site located near Unalakleet, Alaska in 1973. Because of its age—both artifactual and radiocarbon evidence place it in the Norton Period (400 BC – AD 300)—Lutz could not use direct ethnographic analogy to make his interpretation. However, based on the types of activities and gender-specific artifacts, he asserted that a *karigi* could be identified by 1) the presence of large quantities of tool-manufacturing debris; 2) the scarcity of artifacts related to domestic activities; and 3) artifacts specifically tied to activities usually purported to be undertaken by men.

Here we explore Lutz's conceptualization for identification of *karigi* by comparing the bone tool and lithic assemblages from two late Thule-aged house depressions from site KTZ-087 on Cape Espenberg, Alaska that were used AD 1450–1650. Based on marked differences in these assemblages, we argue that one of the two depressions is the remnant of a *karigi*.

Chambers, Brennan (see Wolff, Christopher B.)

Chapdelaine, Claude (see Eastaugh, Edward)

Cheng, Wen Yin (Elaine) (UCL Institute of Archaeology; Archaeological Services Inc.)

How Wendat Pottery Is Learnt and Taught (Thursday, Central ON, 10:00-10:20am, Duke of Connaught)

Wendat juvenile vessels are very distinct from the adult vessels found within the artefact assemblage. By comparing between the production sequences of juvenile and adult vessels it is possible to comprehend how they were produced. But the study doesn't end there, where the knowledge came from and how they were passed down is an important part of their culture. By studying the production sequence between the juvenile and standard vessels we may further our understanding on how skill was transferred through the Wendat culture.

Chism, James (see Denton, David)

Clark, Terence (Canadian Museum of History)

Working Together from Start to Finish: Archaeological Research in Cooperation with the Shìshàh Nation (Friday, Heritage, 10:00-10:20am, Windsor)

After many years of collaborative fieldwork, the shìshàh Archaeological Research Project, a partnership of the Canadian Museum of History, the University of Toronto and the shìshàh Nation, will embark on a new challenge, creating a museum display that shares some of our findings. While soliciting Aboriginal input in museum displays is now commonplace, we aim to go further and create the display together. This display will then be produced for tems swiya, the shìshàh Nation museum, as well as the permanent galleries of the Canadian Museum of History.

Compton, Beth (University of Western Ontario), Kimberly Martin (University of Western Ontario), and Ryan Hunt (University of Western Ontario)

Mobilizing the Maker Movement: Community-Driven Projects and Opportunities for Archaeological Engagement (Friday, Community, 4:40-5:00pm, Suite 300)

Community-based archaeological projects come into being under a plethora of different circumstances and involve a wide variety of community partners. In this talk, we will introduce a London, ON-based project called the Digital Humanities MakerBus, an innovative classroom, laboratory, and creative play space, literally on wheels. The bus was not conceived of with an archaeological, or any other disciplinary purpose in mind, but rather it was created to provide access to digital technologies and other hands-on resources in a mobile setting which could be taken to community groups wherever they may be located. Now that almost a year has passed since the project began, our team believes that there may be enormous potential for a project like the DH MakerBus to deconstruct previously established power structures, and provide a platform for individuals and groups to develop community-driven projects in their own meaningful spaces. This includes archaeological, historical, and heritage based projects, which, heretofore, have not been a common focus of other established “maker” projects. Along with a basic introduction to the “maker movement” and its potential for archaeological applications, this talk will address the implications of changing the locus for archaeological exploration and engagement.

Cook, Russell (Lakehead University) and Carney Matheson (Lakehead University)

Multianalytical Residue Analysis of the Trihedral Adze: An Examination of Tool Use and Placement within the Temporal Context of Northwestern Ontario (Friday, Boreal, 10:00-10:20am, Prince of Wales)

The trihedral adze was first described as a component of the local paleoindian culture has since also been associated with the early archaic period in North Western Ontario. Dating of the tool has proven difficult as none have been found in a secure context directly associated with the material of a specific period. It is largely agreed that the trihedral adze is a wood working tool, yet their specific use within the sphere of human-environmental interactions is poorly understood. Fox (1978) hypothesised that the development of the adze coincides with the arrival of white pine into the region during the peak of the Holocene drying period. While this hypothesis seems sound there is little direct evidence available to support the claim. By deducing the species of tree processed by the tool type an approximate date and specific tool use can be determined.

Much of the difficulty involved in properly dating this tool stems from the poor preservation and limited stratigraphy common to most sites in North Western Ontario. The use of multi analytical residue analysis techniques, including microscopy, analytical chemistry and biochemistry is employed to overcome these issues by allowing for the analysis of microscopic residue remains preserved on the surface of the tool.

Cooper, Martin S. (see Abedin, Zeeshan)

Cortese, Brittany (Western University), Melissa Echlin (Western University), Kim Eldridge (Western University), Matthew Haruta (Western University), Olivia McKenzie (Western University), Phillip Mock (Western University), Breanne N. Reibl (Western University), and Kayley E. Sherret (Western University)

Beyond the Syllabus: Student Experiences of Western's Field Methods Course (Saturday, Poster Session B, 9:00am-12:00pm, Foyer)

There are often lively debates concerning what skills should or should not be taught in an archaeological field methods course. Every school, department, and instructor has their own sets of perspectives and goals for their own courses, and most instructors would argue that their perspective is the best for the students. However, rarely do the students' perspectives figure prominently in the discussion. This poster highlights the students' perspectives from Western's 2013 archaeological field methods course. They are discussing what they learned, the real outcomes of the course, and how they are applying the skills they learned after the course.

Cortese, Brittany (see Beaudoin, Matthew)

Courtemache, Michelle (see Gates St-Pierre, Christian)

Creese, John L. (University of Cambridge)

Iroquoian Economies of Emotion-Work (Thursday, Central ON, 10:40-11:00am, Duke of Connaught)

This paper considers the sources of demand for trade items among Ontario Iroquoian societies in Late Precontact and Early Historic periods (ca. AD 1400-1650). I propose that objects perceived to be potent – including many obtained from European sources – fed into local “economies of emotion work”. These systems involved characteristic cycles of ritual exchange focussed on the accumulation and enchainment of bodies and belongings. Their social efficacy depended on “emotion work” accomplished by the iterative bundling and fragmentation of highly affective, socially inalienable objects. Exchange with Europeans, however, required that alienable goods obtained in trade be materially transformed into inalienable objects appropriate to the demands of this affective economy. Certain media, such as wampum, smoking pipes, and glass beads, were particularly suited to accomplishing this transformation, and therefore constituted crucial “switchers” that linked local and global economies in the fifteenth-to-seventeenth century Northeast.

Crompton, Amanda (Memorial University)

Finding the Chapeau Rouge: French Permanent Residence in Newfoundland, to 1714(ish) (Thursday, Hist Arch, 11:00-11:20am, Windsor)

The vast majority of the French presence in Newfoundland was a seasonal one, as French fishing crews were only resident on the island for the summer fishing season. However, between 1662 and 1714, some French fishers lived year-round in settlements along the south coast of the island. Prompted by the founding of an official colony in 1662, small family-based fishing plantations were established, outside of colonial control, in a region called the Chapeau Rouge. Their distance from the mechanisms of colonial control meant that these settlements are poorly understood and infrequently documented. These settlements have never been studied archaeologically, and indeed the central problem is finding them, as the exact location of these fishing plantations is rarely described. This paper will model French site selection choices and ways in which these sites can be identified and

distinguished from seasonal fishing sites. Though the Treaty of Utrecht banned the French from living in Newfoundland year-round after 1714, individual adherence to treaty terms was far from rigorous, and some French residence continued, at least in the short term. Even after the French had at last moved on, the concept of the Chapeau Rouge remained, demonstrating the persistence of maritime landscapes.

Crompton, Amanda (Memorial University)

Five Easy Pieces or (Idiosyncratic) Object Lessons in Historical Archaeology (Friday, Oral Trad., 3:40-4:00pm, Windsor)

Csenkey, Kristen (Trent University)

“Dogs and Humans: A Zooarchaeological Analysis of Jacob’s Island-1B, Peterborough County, Ontario” (Thursday, Floral and Faunal, 2:40-3:00pm, Prince of Wales)

The domestic dog (*Canis lupus familiaris*) has been an important part of humans’ lives for thousands of years, whether as hunting aids, pets, or food-sources. However, little is known about the role of domesticated dogs and their interactions with people in prehistoric Ontario. In this study, the faunal remains from an archaeological site in Peterborough County with Late Archaic Period (3500 to 2800 B.P.) components are examined to determine the types of activities that occurred at the site. The results suggest that the dog was the primary species interred, although small rodents, especially the chipmunk (*Tamias striatus*), was also found in high abundance. It is suggested that the domestic dog was associated with ritual and mortuary activities at Jacob’s Island.

Cunningham, Jerimy J. (University of Lethbridge)

In the Potter’s House: Reflections on Individuals in Prehistory (Saturday, Michael Spence, 2:40-3:00pm, Prince of Wales)

One of the lessons Michael Spence instilled in his graduate students at UWO in the late 90s was the need to forefront individuals in archaeological interpretation. Building on this theme, I explore archaeological approaches to lived experience through a case study of an 11th Century pithouse from Chihuahua, Mexico. In 2010 and 2012, the Proyecto Arqueológico Santa Clara excavated a structure dated to the late-Viejo Period, which represents the pithouse-to-pueblo transition in the Casas Grandes Regional System. Material culture from the house suggests that it contained a resident potter. Based on analyses of space use and local ceramic variability, I suggest that changes in gender dynamics may have been a key element in the region’s architectural transformations.

Daechsel, Hugh (Golder Associates)

Challenges of Managing Large Scale Archaeological Projects (Saturday, Business, 2:00-2:20pm, West Ballroom)

Archaeological assessments whether large or small can be challenging. Although there are a few examples over the past 20 years of comparatively large scale investigations (e.g. 1990’s Archaeological Assessment of the 407) it has only been in the last five years, with the advent of *Green Energy Act* and the resulting large scale wind and solar projects, that archaeological activity in Ontario has dramatically increased. This coupled with the increased involvement of corporate archaeology in Ontario (e.g. Golder, Stantec, URS, AECOM, AMEC) has appreciably changed the practice of archaeology in the province. Many of these changes have evolved around the identification of challenges unique to larger projects and efforts to address these

potential risks in undertaking these assignments. Although sometimes intertwined, five principal areas of risk have been identified for discussion in this presentation along with some mechanisms designed to minimize the potential impacts of these areas of risks which include quality, financial, people, stakeholder consultation and regulation.

Damkjar, Eric (Archaeological Survey, Historic Resources Management Branch, Alberta Culture)

Modernizing the Archaeological Survey of Alberta (Friday, Modernization, 2:20-2:40pm, West Ballroom)

The Archaeological Survey of Alberta takes its mandate from the Historical Resources Act, which came into effect in 1973. In the Canadian context, it was pioneering legislation that provided strong government authority and mechanisms to protect and promote archaeological resources and nurtured the development of, and partnership with, a professional consulting community. The mandate and activities of the Archaeological Survey have not really changed over the ensuing 40 years, but the methods have been transformed, primarily as a result of technological change. Core responsibilities such as development review and regulation, oversight of archaeological activities, and the curation of archaeological information have benefitted from a wide variety technological advances. In this paper, I will reflect on these changes but will suggest that a bottleneck has developed. We are capturing more information with greater fidelity but have barely begun to realize the potential benefits of a cyberinfrastructure for archaeological research and information management. Much of the delay can be attributed to the cost of developing appropriate infrastructure and the fact that it is not yet perceived as a core program area in government agencies like the Archaeological Survey. But more fundamentally, archaeological data is not sufficiently normalised to benefit from the integrative possibilities of cyberinfrastructure. I will consider some of the Archaeological Survey’s aspirations to bring greater consistency to archaeological data, the potential benefits of that, but also the stifling effect that “cookbook” archaeology can have.

Darwent, Christyann (see Brown, Sarah K.)

Darwent, Christyann (see LeMoine, Genevieve)

Darwent, Christyann (see Szpak, Paul)

Darwent, John (see Cesario, Grace)

Darwent, John (see LeMoine, Genevieve)

Dent, Joshua (see Beaudoin, Matthew)

Denton, David (Cree Nation Government), Florin Pendea (Lakehead University), Dario Izaguirre (Cree Nation Government), Francis Marcoux (Cree Nation Government), James Chism (Waskaganish Cultural Institute), and Stacy Bear (Waskaganish First Nation)

“The Land is Growing”: Archaeology and Environmental Change in the Context of Community-based Research near Waskaganish on James Bay (Friday, Community, 3:20-3:40pm, Suite 300)

Cree Elders who have spent their lives travelling on southeastern James Bay are aware of long-term changes in the environment, especially the rising of the land as a result of continuing post-glacial uplift. A recent archaeological project undertaken by the Cree Nation Government and the Waskaganish First Nation is focusing on sites dating between about 4000 and 300 BP,

including several which are of special significance to the community. In collaboration with Lakehead University, a core sampling program was undertaken to develop a more detailed post-glacial uplift curve. Archaeological excavations and survey work have focused on the following sites: 1) Nuutameshaanan (or Smokey Hill), a traditional cisco fishing location on the Rupert River with significant precontact and historic period occupations, 2) Sander's Pond, a much older site found by a community member and 3) Miskoutenkashit, an early historic gathering site (which remains to be found). The paper focuses on the significance of the changing coastline for understanding these sites in the context of this community-based project.

Dermarker, Susan (University of Toronto)

A Preliminary Look at the Definition and Spatial Distribution of the Lalonde High Collar Ceramic Type (Thursday, Woodland, 11:20-11:40am, Suite 300)

What is Lalonde High Collar? Ridley introduced the ceramic as a type in 1952 but its definition has been ambiguous and elusive for the last 60 years. Recent research suggests it is not only present in Simcoe County, the presumed location of its origin, and in sites along the north shore of Lake Ontario, but also in eastern Quebec and the northern States. This presentation aims only to question our use of the term and its application to the larger collection of high collar wares.

DeVries, Megan (University of Western Ontario)

Cultural Resource Management and Aboriginal Engagement: Policy and Practice in Ontario Archaeology (Friday, Community, 4:00-4:20pm, Suite 300)

The *Standards and Guidelines for Consultant Archaeologists* (2011) introduced a new requirement for archaeologists working in Ontario CRM to engage Aboriginal communities in response to growing criticisms from these communities over being excluded from the process. Considered vague by many involved in the industry, both archaeologists and Aboriginal community representatives have developed their own strategies for complying with these requirements and their own opinions on how what they do over the course of engagement does or does not fit in to the province's responsibility to consult with and accommodate Aboriginal interests. Many Aboriginal concerns remain unaddressed by provincial policy, leaving open the possibility that tension and conflict may arise in the field. This presentation will examine how differing viewpoints and worldviews are negotiated between archaeological firms, their proponent, and the First Nation. In particular, the concept of "monitoring", i.e. having Aboriginal community representatives present on archaeological sites to communicate the community's interest to the archaeologist, will be explored: its roots in distrust and crisis as well as its ubiquity and effectiveness today. While some archaeologists have been open to the recent changes in policy advocating for more transparency and collaboration, others have been resistant and continued to defend their position of authority over the management and interpretation of the archaeological record. Ultimately, despite some steps forward, it is questionable whether the requirements of the *Standards and Guidelines* have succeeded in anything more than superficial communication between the two parties.

DeWitt, Sarah (Golder Associates)

AfGw-140: A Site-Specific Look at Archaic-Period Occupation in Haldimand County (Friday, Green Energy, 10:40-11:00am, Duke of Connaught)

This presentation will deal with the results of stage 4 excavation on Stantec Location #15, part of the Samsung Grand Renewable Energy Park in Haldimand County, Ontario. This site, at which only a partial stage 4 was conducted, appears to be relatively undisturbed, and has yielded heavy artifact concentrations, two subsurface cultural features, and a large number of bifaces, among other tools. Due to its undisturbed nature, Stantec Location #15 is a prime example of an Archaic occupation in Haldimand County.

Dillane, Jeffery (see Hawkins, April)

DiLoreto, Amanda (see Spence, Michael W.)

Dobrota, Therese (Memorial University)

Integrated Soil Analysis at an 18th-Century Inuit Summer Camp, Huntingdon Is 5 (FkBg-3), Sandwich Bay, South Labrador (Saturday, Circumpolar, 2:20-2:40pm, Duke of Edinburgh)

This paper discusses the theoretical and methodological potential of integrated soil analysis methods in Arctic and Subarctic contexts using a case study from the summer component of Huntingdon Island 5. Huntingdon 5 is one of the largest Labrador Inuit sites known from South Labrador, consisting of both a summer and winter component. Occupation took place between the 17th and 18th-century, and it is believed that no more than one dwelling was occupied at a time.

Geochemical spot tests, paleoethnobotany and thin-section micromorphology were used to analyze soil samples collected during the excavation of two tent rings. The data obtained was used to create distribution maps which were superimposed in order to study patterning on the tent floors and reveal aspects of the *taskscape* associated with them. Comparison with samples collected from previous years' excavations of sod dwellings, as well as background samples from vegetation zones identified on the island were used to understand the environmental and taphonomic context of the tent rings.

Integrating multiple aspects of soil science focused on soil ecology is particularly relevant in Arctic and Subarctic regions due to the vulnerability of cryogenic soils to rising global temperatures. This approach allows for a better understanding of how vegetation change and modifications to the freeze thaw cycle, both the result of changes to the annual temperature regime, affect archaeological assemblages.

Dodd, Christine F. (see Spence, Michael W.)

Doneus, Michael (see Kucera, Matthias)

Dorland, Steven (University of Toronto)

Experiencing a Sweat: A Sensorial Analysis of Iroquoian Sweat Lodge Rituals (Thursday, Woodland, 2:00-2:20pm, Suite 300)

Ethnographic records indicate that Iroquoian ritual practices were both quotidian in nature, and comprised of intense, infrequently practiced, gender exclusive events. Sweat lodge rituals represented both sides of the spectrum, as they were involved with male leisure and social integration, health of both mind and body, but also, less frequent shamanistic rituals that involved communication and travel to ancestral worlds (Macdonald 1988).

In this paper, I focus on capturing the experiential event of sweat lodge rituals. I adopt an archaeology of the senses that incorporates the somatosensory sensations linked to extreme temperature and pain, as well considering the perception of space and time during sweat lodge rituals. Bruck (2005:51) challenges such phenomenological approaches due to the inability to assess the sensual experience and its connection to the past. However, the proposed approach works on the notion that regardless of cultural upbringing, the human body has biological constraints that cannot be drastically altered. I do need to note the limitations and potentials of pain and extreme temperature sensation will differ among cultures, but we can rely on the biological constraints to bound cultural variability to a certain degree. Adopting a sensorial approach to the understanding of sweat lodge rituals allows us to move past functionalist explanations of sweat lodge use, the restrictive dichotomy of the sacred and the profane, and attempts to understand ritual, as both a practice and cultural representation. This allows interpretation of Iroquoian lifeways that considers the people within the communities, and their cultural experience.

Doroszenko, Dena (Ontario Heritage Trust)

Using Non-Destructive Techniques in Aid of Promoting the Preservation of Ontario's Archaeological Sites (Thursday, Geophys, 11:00-11:20am, West Ballroom)

The Ontario Heritage Trust is dedicated to identifying, preserving, protecting and promoting Ontario's rich and varied heritage for the benefit of present and future generations. In pursuit of these aims the Trust has experienced over forty years of archaeological activity. The agency began the use of geophysical techniques in the 1970s and continues today to utilize these techniques to identify archaeological potential on a variety of properties as needed. Examples of the Trust's experiences with a variety of geophysical techniques will be presented.

Doroszenko, Dena (Ontario Heritage Trust)

Curatorial Care of Ontario's Archaeological Heritage (Saturday, Business, 4:00-4:20pm, West Ballroom)

Since 1967, the Ontario Heritage Trust (formerly Ontario Heritage Foundation) has been dedicated to identifying, preserving, protecting and promoting Ontario's rich and varied heritage for the benefit of present and future generations. In pursuit of these aims the Ontario Heritage Trust (OHT) currently holds 190 cultural and natural heritage sites, eleven of which are designated National Historic Sites. Over forty years of archaeological activity at the OHT has generated large archaeological collections representing a variety of types and time periods. It has also generated a large archive of associated records and documentation. Unfortunately this data is often at risk of being lost through poor records management over time. Considering the destructive nature of the discipline, preserving the raw data of excavation is doubly important. This paper will examine the principles, policy and process of incorporating curatorial care from the field project to post-excavation analysis that has been adopted by the Trust.

Dow, Amanda (see Lobb, Murray)

Downey, Jordan (University of Western Ontario)

Just Because Two Things Are Both Made Out of Clay Does Not Make Them the Same Thing: Intersecting Ceramic Timelines in the Virú Valley, Peru (Thursday, Old Data, 1:40-2:00pm, Duke of Connaught)

Seriation is the oldest dating method in archaeology and it continues to be very important for archaeological research despite the widespread use of more modern and precise absolute dating techniques. Absolute dating methods are expensive and require secure datable samples that are not available in all contexts, whereas seriation requires experience and a time commitment more than anything else. Seriation is particularly important for regional survey projects since excavation at multiple sites would be a very expensive and logistically challenging prospect. But such projects often rely on old regional chronologies that were ground-breaking when first published but have since been shown to contain significant errors and yet have never been updated. This is certainly the case on the north coast of Peru where ceramic sequences first developed in the 1930s and 1940s continue to be used without refinement to date sites and to establish supposed ethnic affinities. In this paper I re-examine James Ford's seriation project in the Virú Valley--the first Andean regional ceramic chronology to include both domestic and corporate ware ceramics, and the basis of many other seriation projects--to propose a new chronology of Virú Valley sites. Furthermore, I argue that domestic and corporate ware styles were made for different purposes by different people and developed along independent timelines and cannot be integrated into a single ceramic sequence. Recognizing these as separate timelines will allow archaeologists to seriate sites--and by extension the communities they represent--with considerable nuance.

Drouin, Bradley (Golder Associates Ltd)

Reinventing The Process: Challenges and Changes Encountered on a Large Scale Renewable Energy Project in Haldimand County, Ontario (Friday, Green Energy, 9:20-9:40am, Duke of Connaught)

The presentation will outline the Stage 4 work completed to date by Golder Associates Ltd. in advance of a large scale Wind Farm project situated in Haldimand County, Ontario. The presentation will be divided into two main sections. The first will review some of the key highlights of the three year field program to date and will outline some of the challenges and successes encountered in the field working on a project of such a large scale. The second component will briefly touch on how large scale projects require a different set of Project Management skills not generally required on smaller scale projects.

Duggan, Rebecca (see McNeill, Duncan)

Dunlop, John (Archaeological Services Inc.; University of Western Ontario)

Integration of Geophysical Survey in the Cultural Resource Management Industry: The Blacker's Brickworks Site (Thursday, Geophys, 2:40-3:00pm, West Ballroom)

The archaeological investigation of the Blacker's Brickworks site outside Brantford, Ontario, integrated a gradiometer survey during the initial site investigations. This integration was initially implemented due to the unique nature and location of the site; however the results were able to assist not only in site prospection but assisted in placing the archaeological resources within an overall landscape context. This exercise demonstrates the effectiveness of such techniques within to the cultural resource

management industry by adding a powerful tool to the management of the archaeological resource.

Dunlop, John (see Venovces, Anatolijs)

Eastaugh, Edward (University of Western Ontario), Lisa Hodgetts (University of Western Ontario), Jean-Francois Millaire (University of Western Ontario), Claude Chapdelaine (Université de Montréal), and Chris Ellis (University of Western Ontario)

Making Geophysical Prospection Relevant for Canadian Archaeologists: Using Magnetic Susceptibility to Map Pre-Contact Archaeological Sites in Southern Ontario and Quebec (Thursday, Geophys, 2:20-2:40pm, West Ballroom)

Although the use of geophysical prospection techniques is gaining ground in Canadian archaeology, it is still relatively rarely used. Among other reasons, archaeological geophysics is often seen as having little to offer beyond more traditional approaches, merely adding additional cost with limited return. While sites without substantial remains can be difficult to detect, improvements in both instrumentation and processing over the last decade allow many to be readily identified. These improvements have also made archaeogeophysical techniques more accessible to the non-specialist. Here we present the results of several magnetic susceptibility surveys on pre-contact sites from Southwestern Ontario and Quebec that demonstrate their potential in identifying site limits and individual features, even within woodlots, which are notoriously difficult to survey. Our results show that, as in other regions, magnetic susceptibility offers cost and time benefits over more traditional survey techniques, and has great potential for both academic and commercial archaeologists working in the region.

Eastaugh, Edward (see Martelle, Holly)

Eastaugh, Edward (see Hodgetts, Lisa)

Echlin, Melissa (see Beaudoin, Matthew)

Echlin, Melissa (see Cortese, Brittany)

Edmunds, Hammond (Simon Fraser University)

More Than Food: An Exploration of the Social Significance of Faunal Remains at St'ames (DKRs 6) in Squamish, BC (Friday, Poster Session A, 9:00am-12:00pm, Foyer)

The Northwest Coast is one of the most thoroughly studied archaeological regions in Canada. Thanks to excellent preservation in coastal middens, there is a long tradition of excavating faunal remains at sites. The most common interpretations are based on dietary or economic factors, and as intangible factors such as social context and significance are less easily accessed, they are rarely discussed in zooarchaeological literature. However, ethnographic and First Nations accounts reflect more complex dynamics of human relations with animals in which economic and social aspects are interrelated. Using three lines of evidence, through ethnographic and ethnohistoric records, oral traditions and analysis of a faunal assemblage from *st'ames* in Squamish Nation Territory, BC, I explore how faunal remains can be used to discuss social factors in the archaeological record. Although it may not be possible to resolve social significance archaeologically, this research will contribute to the discussion of implications of differences between archaeological interpretations and First Nations perspectives of faunal importance.

Edwards, Kim (University of Calgary), Dale Walde (University of Calgary), and M. Anne Katzenberg (University of Calgary)

Use of Canid Skeletal Remains as a Proxy for Humans in Dietary Reconstruction Using Stable Isotope Analysis: Results from the Cluny Fortified Village Site (EePf-1), Southern Alberta (Saturday, Isotopes, 9:00-9:20am, West Ballroom)

The Cluny Fortified Village Site (EePf-1), located within the Siksika Nation and along the Bow River, dates to the Protocontact period (A.D. 1700-1754) and is a unique site on the Southern Alberta Plains. The Cluny site is one of few One Gun Phase sites on the Canadian Plains and it has unique features such as gravel-lined pits and short sandstone walls that make the site difficult to assign to a particular cultural group. Canid bone collagen stable carbon and nitrogen isotope ratios are used in this research as a proxy for human bone collagen stable isotope ratios. This analysis was completed to look at possible maize consumption at the site since consumption of maize contributes to elevated $\delta^{13}\text{C}$ values in the bone collagen of the consumer. The determination of maize consumption at the Cluny Fortified Village site may help to identify potential trade from the south through Southern Alberta as well as to identify the cultural groups present in the area. Bison bone collagen was also analyzed to determine if the consumption of C₄ grasses by bison is a confounding factor for stable isotope analysis of dogs on the Southern Alberta Plains. The merits and drawbacks of using canid proxies in human dietary analysis will also be discussed.

Eldridge, Kim (see Beaudoin, Matthew)

Eldridge, Kim (see Cortese, Brittany)

Eldridge, Morley (see Parker, Alyssa)

Ellis, Chris (see Eastaugh Edward)

Ellis, Chris (see Poulton, Dana R.)

Fay, Amelia (Manitoba Museum)

What's Trade Got To Do With It? A Look at the Effects of Trade Participation within Labrador Inuit Society (Thursday, Hist Arch, 10:40-11:00am, Windsor)

By the 18th century a large-scale coastal trade network had developed among the Labrador Inuit, moving European goods north along the coast in exchange for skins, furs, feathers, and baleen. An examination of both the archaeological and ethnohistoric record reveals certain families emerging as key players within this trade network. Many families would travel great distances to acquire European-made material culture, and not all of it was traded away. In fact, much of it seems to have remained in their possession, which must have altered their position in Inuit society in some way. This paper seeks to explore why some families appear more entrepreneurial than others, and what their increased wealth of trade goods meant in terms of their social and economic position within Inuit society. By examining the house of a well-known participant in the trade network, in comparison to other winter sod house settlements along the coast, I hope to demonstrate how the shift from a predominantly hunter-gatherer lifestyle to participation in the market economy altered Inuit society in some ways, particularly during the 18th century, yet at the same time show how many things actually stayed very much the same.

Fayek, Mostafa (see Landry, David B.)

Fayek, Mostafa (see Milne, S. Brooke)

Fayek, Mostafa (see ten Bruggencate, Rachael)

Fecteau, Rudy (see Abel, Timothy)

Fera, Martin (see Kucera, Matthias)

Ferguson, Robert (see McNeill, Duncan)

Ferguson, Robert (Parks Canada, retired)

Pit Stops (Friday, Oral Trad., 4:00-4:20pm, Windsor)

Ferris, Neal (Sustainable Archaeology, Western University; the London Museum of Archaeology)

Fictive Archaeologies (Friday, Oral Trad., 1:40-2:00pm, Windsor)

Ferris, Neal (Sustainable Archaeology, Western University), Rhonda Bathurst (Sustainable Archaeology, Western University), Kira Westby (Sustainable Archaeology, Western University), and Namir Ahmed (Sustainable Archaeology, Western University)

Digitally Accessing Legacies: Sustainable Archaeology and Innovating Collections Management (Friday, Modernization, 2:40-3:00pm, West Ballroom)

The Sustainable Archaeology facilities at Western and McMaster aims to integrate and make digitally accessible the legacy collections compiled from past archaeological fieldwork in Ontario, as well as new collections being generated now, in order allow researchers, Descendant communities and others the ability to access and utilize this heritage and accumulated record for the breadth of Ontario's archaeological history.

It will have taken five years by this summer to get to the point where we actually are taking in collections and incorporating them into a digital Informational Platform. Getting there has required us to develop a range of digital practices and information management procedures that as often as not has required novel research and innovative solutions to reach our goals. From storage, RFID and DM Code tracking of boxes and artifacts, Informational Platform of relational and non-relational databases, creating glossaries of common usage, managing 3D models, microCT scans and 3D prints, to the promise of virtual reconstructions and visual data mining, Sustainable Archaeology has had to, and continues to, both develop and adopt new practices that can achieve our goals, and ensure we are consistent and anticipating changing practices and born digital datasets in practice.

Filzwieser, Roland (see Nau, Erich)

Fisher, Jacqueline (Fisher Archaeological Consulting)

The Puce Site – A River Runs Through It: An Unploughed Late Woodland Site in Southwestern Ontario (Thursday, Woodland, 9:40-10:00am, Suite 300)

During the assessment for a road widening and doubling of a bridge in Essex County, southwestern Ontario, a multi-component, multi-stratified site was discovered that spanned both sides of the Puce River. While the site had been ploughed on the eastern side of the river, the western side was determined to have been unploughed, providing a brilliant opportunity to investigate settlement patterns and features of a predominantly ca A.D.1000, large habitation site. This paper presents a summary of the

preliminary findings on such a rare site, and what further studies may be pursued with the accumulated wealth of archaeological data.

Fisher, Jacqueline (Fisher Archaeological Consulting) and Peter Bziuk (Fisher Archaeological Consulting)

Life in the Fast Lane: AbHq-3 from Past to Present. Complexities of 21st Century Archaeology in Ontario (Saturday, Business, 2:20-2:40pm, West Ballroom)

The discovery and subsequent Stage 4 excavation of a large, multi-component (Western Basin Aboriginal & 19th century Euro-Canadian), multi-stratified site situated on both sides of the Puce River, Essex County, Ontario presented numerous challenges for both the County and the consulting archaeologists. The Essex County engineers and Fisher Archaeological Consulting (FAC) had to contend with health and safety issues, construction deadlines, infrastructure issues, property acquisition and permission to enter, and the weather, especially the weather. First Nation concerns and the Ministry's (MTCS) regulations had to be met as well. This paper explores the level of co-operation required for such a complex project that spanned two years from December 2011 to October 2013. Engineers, Walpole Island First Nation, archaeologists, construction crews, and MTCS all co-operated in order for the project to be completed on time while still ensuring that the archaeology was not compromised.

Fitzgerald, William (SAAR Environmental Limited (Owen Sound); Bruce County Museum & Cultural Centre, Southampton)

The Woodland Period in Bruce County (Thursday, Woodland, 10:00-10:20am, Suite 300)

Colonisation roads that were opened during the mid-19th century to link Lake Ontario with Lake Huron did more than facilitate the movement of Euro-Canadian colonists, commercial goods, and tourists across a broad, far-from-easily traversed wilderness. Beginning in the 1950s, archaeologists who ventured across the interior of peninsular Ontario from the Toronto area via Highways 6, 9, and 10 into Bruce County appear to have been intellectually influenced – albeit subconsciously, by the direct connection between the two areas. Needless to say, during the preceding millennia there were no natural transportation corridors that permitted easy interaction.

Cultural presence along peninsular Ontario's west coast during the Woodland period has long been considered to have been sporadic and largely of external genesis. Based on what now was clearly inadequate regional survey and misguided assumptions, the area was considered to have been a place that groups from away came to, spent a bit of time, then left – the "tourist" or "just-passing-through" models. Cultural gaps in the archaeological record were commonly considered to be periods of abandonment or vacancy.

A re-examination of a more thorough archaeological site database – whose interpretation can be consciously uninfluenced by the current transportation network, indicates that the cultural presence along peninsular Ontario's west coast was not intermittent during the Woodland period – or earlier, nor was it the exclusive consequence of groups who were just visiting from afar.

Flower, Abbey (Infrastructure Ontario)

"Find Any Gold?" - Archaeology in Public Places...What can it Tell Us? (Thursday, Hist Arch, 2:00-2:20pm, Windsor)

This paper will take a brief look at historic public places in Ontario, the place they hold within the archaeological record, and their potential to better our understanding of our past. It will explore properties under long-term ownership by governing bodies, of which at least a portion of the space is open to the general public. It will question and discuss how history and archaeology intersect for such publically-owned places as courthouses, jails, hospital campuses, and others. How have these places changed (or not), and what can archaeology reveal about the use of such public places over time? What information emerges from studying these properties archaeologically as well as historically? What has time forgotten, and what can the archaeology of these places reveal about local histories and social narratives? Each of these properties has the potential to contribute new pieces to the story and broaden our perspective of the past. The long-term public ownership of these properties for over a century provides a unique opportunity to go beyond the history books, and through archaeology explore the longevity and importance of our public places.

Foin, Jeremy (University of California, Davis)

Comparative Faunal Analysis of Three Early Thule House Features from Cape Espenberg, Alaska, and Inglefield Land, Northwest Greenland (Saturday, Circumpolar, 1:40-2:00pm, Duke of Edinburgh)

The Thule expansion was the extremely swift colonization of the eastern Canadian Arctic and Greenland by Thule Inuit moving east out of Alaska ca. AD 1000-1300. Recent re-dating of two key early sites indicates that the migration started much later than previously believed, suggesting that movement was very rapid indeed (Friesen and Arnold 2008). One implication of this is that it may have taken these pioneering Thule groups some time to "settle in" to their new environment (e.g., Fitzhugh 2004). Zooarchaeologically, poor familiarity with local conditions should be reflected in highly uneven, low-diversity faunal assemblages, with an especially heavy bias towards small phocids in early sites (e.g., Darwent and Foin 2010).

In 2009, two early Thule house features at Qaqaitut, northwest Greenland, were excavated under the auspices of the Inglefield Land Archaeology Project. Feature 65 was an extremely well-preserved winter dwelling, radiocarbon dated to ca. AD 1300-1400 (AA-90329, AA-90330). The adjacent Feature 71 was similarly well-preserved, yielding an estimated age of AD 1350-1450 (AA-90331, AA-90332). In 2010, three Thule house features were excavated at Cape Espenberg, Alaska, as part of the Cape Espenberg Project. Feature 68A was a very well-preserved early Thule house feature, radiocarbon dated to ca. AD 1450-1500 (OS-96067; Beta-286172). The faunal assemblages of all three features were subjected to detailed zooarchaeological analysis in order to explore similarities and differences in species composition, cultural and natural bone modification, discard patterns, and use of space in far-flung early Thule occupation sites.

Foreman, Lindsay

CRM Zooarchaeology of 19th Century Southern Ontario Farmsteads (Thursday, Hist Arch, 2:20-2:40pm, Windsor)

The analysis and interpretation of faunal assemblages recovered from Euro-Canadian farmsteads in southern Ontario provides

valuable insight into 19th century subsistence and waste disposal practices. The predominance of domestic mammals in these assemblages, including, pig, sheep/goat, and cow, suggests that husbandry was common and that these animals greatly contributed to the diets of Euro-Canadian families. In some areas, chickens, ducks, and geese were also raised and may have had a more significant role than the written and archaeological records have previously indicated. The presence of native wild fauna in some of these assemblages suggests seasonal and/or opportunistic exploitation of locally available resources.

The context of faunal specimen recovery and the overall preservation of the remains also require consideration. Specimens themselves often bear evidence of butchering and processing techniques. The distribution of the faunal remains at a site helps to define activity areas and the treatment and view of domestic waste.

Zooarchaeological analyses are instrumental to the accurate reconstruction of 19th century life in rural southern Ontario. They provide direct evidence of the daily trials and tribulations experienced by Euro-Canadian families and how they chose to overcome them. Zooarchaeological data also provide insight into the influence of European and Canadian social norms on the lifestyle choices of the often far-removed immigrant and farming households and communities.

Forget-Brisson, Laurence (see Lamothe, Michel)

Fowler, Jonathan (see McNeill, Duncan)

Fox, Amy (SUNY Albany)

Reframing Triangle Points in the Late Woodland: A Morphometrics Case Study from the Mohawk Valley, New York (Thursday, Woodland, 11:00am-11:20am, Suite 300)

Northeastern lithic scholarship is poised to benefit from methodological advances coming out of other anthropological disciplines. This paper reports the results and interpretations of a restudy of triangle points from the Mohawk Valley, New York. For the phenomenon of the Late Woodland triangle point, traditional caliper-based metrics have failed to systematically distinguish between the types Levanna and Madison. Because of this, scholars have taken to describing points as simply "triangle", subsuming the original named types and thus morphological differences. This shift in perspective is a consequence of ongoing frustration with the disconnect between methodological practice and the phenomenon under investigation - shape. Here, two-dimensional outline data of the collection was gathered and analyzed using geometric morphometric techniques. The results show a bimodal distribution of shape that conforms to the traditional types as defined by Ritchie (1971) and with their associated cultural periods of Owasco and Iroquois. Intra-type distribution is approached using multivariate analytics for a richer exploration into the technological phenomena of type in archaeological practice. The results evidence a shift in approach where typology is described as representative of culturally particular behavioural aspects of intended technological purpose as opposed to unidimensional shape metrics. Morphological variability can thus be described in the way that archaeologists have instinctively known for some time but have until now been unable to quantifiably demonstrate.

Fox, Amy (SUNY Albany) and Andrew Riddle (Archaeological Services Inc.)

Weaving, Together, Old and New: On the Benefits of Wiki Technology in Service of Archaeology (Saturday, Virtual, 11:00-11:20am, Prince of Wales)

Wiki technology is a widely-used and established medium for collaborative information management and delivery that can effectively convey information in a user-friendly and appealing manner. This paper discusses how wiki technology can be leveraged by archaeological communities to productively disseminate knowledge and facilitate learning and research. This unique medium democratically engages with a diverse audience and serves as a platform for building and strengthening communities of archaeological scholarship. The ArchaeoWiki Project here has been constructed as a manifestation of these ideas and, though in its infancy, has been structured to support pan-discipline interests. The strength of ArchaeoWiki is its ability to bring together mainstream and grey literature, unpublished technical reports, and other disparate knowledge bases into one common space. Integrated features such as mapping, querying capabilities, and a referencing system are included to tailor this widely-used information management technology to the needs of academics, students, professionals, and enthusiasts alike. We hope to gain collaboration from these communities in order to build a resource beneficial to all.

Fox, Amy (see Wojtowicz, Robert)

Fox, William (Trent University)

Lithic Embellishment of the Ball Village Narrative (Friday, Ball Site, 9:40-10:00am, Suite 300)

The lithics recovered from the Ball site excavations are described and compared to a variety of 17th century Wendat assemblages. Certain aspects of the Ball village lithic collection are unique, suggesting a potential for ethnic complexity in the occupational history of the site.

Freeman, Johnathan (Timmins Martelle Heritage Consultants Inc.; Western University)

Exploring the Occupational History of the Dorchester Iroquoian Village Site (Thursday, Woodland, 11:40am-12:00pm, Suite 300)

The Dorchester Village Site (AfHg-24), occupied during the Middle Ontario Iroquoian period (ca. A.D. 1300 to 1400), was excavated by Timmins Martelle Heritage Consultants Inc. between 2004 and 2011. Intersecting longhouse footprints and the presence of two palisades suggest that multiple episodes of occupation occurred within the palimpsest of post moulds and features on this site, but the sequence of change over the duration of the site occupation is in no way clear. By analyzing the superposition of features associated with specific longhouses, longhouse walls, and palisades, an elementary relative chronology was generated for intersecting elements within the Dorchester Village. To fill gaps within the general temporal framework suggested by the superposition data, ceramics were analyzed and compared on a house by house basis to infer the placement of non-intersecting longhouses and longhouse clusters within the occupational history. This research provides spatial and temporal context for further research on the Dorchester village and contributes to the discussion of spatial-temporal trends within Iroquoian villages in general.

Gabler, Manuel (see Nau, Erich)

Gardner, Janet (see Spence, Michael W.)

Gates St-Pierre, Christian (Université de Montréal), Claire Saint-Germain (Université de Montréal), Michelle Courtemanche (Université de Montréal), and Marie-Eve Boisvert (Université de Montréal)

Bones as Food and Bones as Tools: An Integrative Analysis of the Bone Remains from the St. Anicet Cluster (Friday, St. Lawrence, 1:40-2:00pm, Prince of Wales)

The McDonald, Droulers and Mailhot-Curran villages are at the core of the St. Anicet cluster of St. Lawrence Iroquoian sites, located in southern Quebec. After many years of archaeological excavations, those three prehistoric villages have yielded large quantities of faunal remains, bone tools, and manufacturing debris. This presentation will present the preliminary results of various lines of investigation that have been combined in a new project that will use an integrative approach aiming at a better understanding of the exploitation strategies of the faunal resources by the St. Lawrence Iroquoians of St. Anicet.

Gelé, Agnès (Université Laval)

Natures Mortes and Scènes De Genre, the Use of Iconography for Contextualizing the Artifacts in Historical Archaeology: Historiography, Limits and Perspectives (Thursday, Hist Arch, 11:40am-12:00pm, Windsor)

By trying of contextualizing the use of artifacts, the historical archaeologists often resort to sources such as iconography or written sources. As an archaeologist, it seems important to consider that the symbolic dimension and the aesthetic aspect of a pictorial work may confuse our interpretation and to be aware of its context of creation. By using the example of glass tableware discovered in French contexts in the Province of Québec, the aim of this paper is to define the limits and the potential of using iconography for contextualizing the artifacts in historical archaeology.

Gibson, Terry (see McKeand, Peggy)

Gibson, Terry (Western Heritage) and Peggy McKeand (Western Heritage)

Near Surface Geophysical Assessment and Excavation of 12 Archaeological Sites north of Oshawa, Whitby and Pickering in Ontario (Saturday, Poster Session B, 9:00am-12:00pm, Foyer)

In the summer and fall of 2013 Western Heritage conducted Stage 3 and 4 archaeological assessments of 23 Confederation and Pre-Confederation era homesteads in the north Oshawa, Whitby and Pickering localities. Despite enduring more than a century and a half of intensive cultivation, significant intact cultural remains were still present on these sites, in the form of foundations, pits, lot survey pins and post holes. The challenge was to locate them within a given cultivated area, buried under 30-50 cm of disturbed ground. Once located by historical background study and surface examination, the standard method is to assess sites by placing test units spaced 5 m apart, in a grid pattern. Past experience showed that this was at best a "hit and miss" approach. A more reliable assessment strategy was to augment regular testing with the application of near surface geophysical (NSG) techniques to locate buried features. Therefore, on twelve of these sites judged suitable for NSG, work crews employed gradiometer and ground penetrating radar methods because magnetic and radar approaches are sensitive to foundation and pit features, particularly if they are filled with iron artifacts.

Since all geophysically assessed sites were subsequently excavated, an excellent opportunity was available to interpret the efficacy of the NSG approach for evaluating and interpreting these kinds of sites. The results were illuminating in many ways. Conflicts with existing site evaluation practices as specified in the 2011 Standards and Guidelines in southern Ontario were brought to light that compromised the full effectiveness of the NSG methods. As well, unusual and unexpected discoveries were made using the NSG methods that were not likely to have been made using standard assessment techniques. These are highlighted in the poster, and recommendations regarding how to make NSG work better in the region are provided.

Girling-Christine, Stacey (Canadian Museum of History)

Facelift of the Archaeology Storage – CMH (Friday, Poster Session A, 9:00am-12:00pm, Foyer)

The Canadian Museum of History located in Gatineau, Québec underwent a massive facelift which has resulted in the expansion of their storage space by ten percent. A new full concrete floor has been built above the space currently used for the archaeology collections. This major renovation project will lead to an expansion of some 1500 square metres of collections storage. During the Fall of 2010, 390 cabinets were lifted off of 5 large bays of movable storage units. Based on in-house research requirements and cabinet weight, these cabinets were then distributed over several floors of the Curatorial building. Collections Management staff expertly manoeuvred the cabinets into every available open area in other collections storage rooms.

Glencross, Bonnie (Wilfrid Laurier University) and Gary Warrick (Wilfrid Laurier University, Brantford)

Minimally Invasive Techniques in Huron-Wendat Archaeology (Thursday, Central ON, 9:00-9:20am, Duke of Connaught)

The rapid pace of economic, political and social change over the past 75 years has framed and reframed archaeological practice in Ontario. Most recently, Indigenous groups have become increasingly involved in, and critical of, archaeological research. Descendants of the Huron-Wendat who value archaeological investigation of their ancestral sites but desire to protect their buried ancestors, have placed restrictions on archaeological excavation and the analysis of remains. Practitioners conducting Huron-Wendat research archaeology and consulting archaeology have recognized this challenge and are beginning to develop a repertoire of alternative analytical techniques that are minimally invasive.

We describe a research design that defines village sites, and collects archaeological data with minimal excavation and disturbance of site deposits. Using a combination of non-invasive geophysical prospection, soil coring, auger hole testing, limited test excavation and the use of animal bones as surrogates for human remains, our research will contribute to the growing body of knowledge regarding the effectiveness of these techniques in Huron-Wendat archaeology. Most importantly, this approach will foster future research with the Huron-Wendat and other Indigenous groups in central Ontario by working collaboratively with them and developing alternative methods that minimize destruction of ancestral remains and respect Indigenous rights.

Gordon, Bryan (Canadian Museum of History)

Carrying Barrenland Caribou Herd and Hunter Migration Route Analogies to Great Lakes States, New England, and Appalachia (Saturday, Paleo-Indian, 2:00-2:20pm, Suite 300)

This paper projects 2012 research in Ontario (see link below) to the Great Lakes States, New England and Appalachia. Again, I want to compare archaeological site locations with GIS generated caribou ranges and migration routes based upon the Barrenland Beverly and Bathurst caribou ranges and their hunting sites. Ontario sites and herd movement were constrained by glacial lakes, while the above areas had mountain and valley constraints. As this huge area has been extensively surveyed over many decades by dozens of archaeologists, resulting in a massive number of sites and artifact databases over the past century, my paper will be more of explaining biological research-in-progress than a definitive statement at this time. I will explain how we are testing these regions using Barrenland analogies relating to herd ranges and human and caribou behaviour as described in my book *People of Sunlight*.

Grégoire, David (Université Laval)

The Archeology of the First Castles: The Example of Le Castellet in Allemagne-en-Provence (Thursday, Old World I, 9:40-10:00am, Prince of Wales)

The planned four-year project at Le Castellet in Allemagne-en-Provence (France), under the direction of Daniel Mouton, helped uncover a very good example of these early castles. These castles have multiplied during the second half of the tenth century and correspond to castles of "first generation", that is to say, perched houses. The occupation of this site falls between (1228-1410) so a little later. This sequence suddenly ends with a fire immediately followed by the burial of the site under a thick layer of earth and pebbles.

The first campaign was held for five weeks during the summer of 2008 and has continued over the next four years. From the first year, the results were rather unexpected. Indeed, the state of preservation of the remains is better than what had been expected and the nature of the elements uncovered provide additional data on the evolution of feudal mounds in Provence. In addition, some discoveries enrich the prospects of the future Archaeological Museum of Riez.

Griebel, Brendan (Intuit Arctic Research) and the Inuit Heritage Trust

Re-Presenting the Past: A New Archaeological Outreach Strategy for the Territory of Nunavut (Saturday, Circumpolar, 9:00-9:20am, Duke of Edinburgh)

Over the course of 2013, Brendan Griebel and the Inuit Heritage Trust began working together to consider new directions for Inuit involvement in Nunavut archaeology. This partnership was founded on recognition that Inuit continue to be isolated from the collection, management, and interpretation of material culture within the territory. Despite the increasingly popularity of community-based approaches to archaeology in Nunavut, local people continue to have little idea of what archaeology is, what it seeks to accomplish, or what rules govern both its practice and their own engagement with archaeological materials.

This paper will present the results from the first phase of our partnership in the form of three plain-language publications targeting different Nunavummiut audiences. These booklets seek to re-brand archaeology within the territory as a community

responsibility, highlighting local individuals' roles in documenting material culture, managing archaeological sites, and ensuring that incoming archaeological research conforms to the expectations and regulations of Inuit communities. Respectively tailored to northern students, northern heritage workers, and northern community members, these booklets encourage archaeology as a potential profession while simultaneously exploring the discipline's controversial history within the territory and the need for local people to critically challenge its current practices and ideas about the past. These booklets have already undergone review by culture and education authorities, elders, heritage workers, and community members throughout Nunavut, and we look forward to presenting them to an archaeological audience for feedback on their approach and design.

Griebel, Brendan (Kitikmeot Heritage Society)

"Don't Fence Me In...": A Meditation on Community Archaeology without Borders (Friday, Community, 2:00-2:20pm, Suite 300)

Community-based approaches have come to represent an exciting new frontier for archaeological research. Over the last two decades, pioneering projects have laid the groundwork for a form of practice highlighting flexibility and adaptation to the social and cultural contexts at hand. Like many frontiers, however, there comes a time when the allure of the novelty and unpredictability succumbs to the desire for more a stable identity. In line with this trend, community archaeology's formerly unimpeded horizons have become increasingly dotted with best practice guidelines, explicit methodologies and strong opinions as to what is, and is not, 'true' community archaeology. This paper will explore the benefits of continuing to perceive community archaeology as a practice unconstrained by methodological parameters and fixed definition. I present a case study that parallels attempts to define community archaeology with processes of collective identity formation in the territory of Nunavut. From 2008-2012, these two seemingly distant topics merged during archaeological research in the hamlet of Cambridge Bay, Nunavut. By eschewing an approach to community archaeology that relies on pre-defined values and methodologies to engage pre-defined communities, this project sought to re-imagine processes of community archaeology and Inuit identity formation as mutually constitutive categories. This ultimately allowed participants to materialize and experience the past in ways capable of informing their own lives, identities, and notions of what community should be.

Grieve, Johnathan (Stantec) and Whitney Spearing (Stantec)

Point Typology in the Quesnel Forest District, British Columbia (Saturday, Poster Session B, 9:00am-12:00pm, Foyer)

There is currently no cultural historical framework for central Interior British Columbia, as such archaeologists working there must rely heavily on information from adjacent regions, particularly southern Interior B.C., to interpret their findings. A better understanding of central interior regional prehistory will be achieved through the establishment of local chronologies and typologies. Therefore, we will test the applicability of cultural historical sequences from neighbouring regions, through the examination of projectile points.

In this poster we present a preliminary analysis of projectile points recovered from archaeological sites within the central interior of British Columbia. An arbitrary sample area comprised of the Quesnel Forest District was chosen, for the purposes of this poster, as it represents a finite sample within the larger regional context.

Present understandings of regional projectile point sequences and typologies, and the relationship between point typology and raw material type, are examined where possible. A spatial analysis of the distribution of projectile points; including an assessment of projectile point site locations as they relate to other known archaeological sites, traditional use sites, aboriginal and historic trail systems, and prominent geographical and hydrological features, is offered. Literature from both academic publications, as well as cultural resource management documentation, is utilised in discussion and analysis. This poster outlines further avenues of potential archaeological research, towards the establishment of local chronologies and typologies, in the central interior. Poster information is displayed in the form of maps, photos, statistical analysis and text.

Grimes, Vaughan (see Bower, Megan)

Grimes, Vaughan (see Guiry, Eric J.)

Grimoud, Anne-Marie (see Hardy, Marie-Hélène)

Gromoff, Nick (Ground Truth Archaeology)

It's Different Down Here: Woodland Period Archaeology in the Kingston Area (Thursday, Woodland, 10:40am-11:00am, Suite 300)

Given Kingston's location at the outlet of Lake Ontario relatively few precontact archaeological sites have been identified in the area. In particular Woodland villages of the Iroquoian model are essentially unknown. Instead multi-component fishing stations and campsites located on waterways are the most common sites encountered. Due to increased development and application of archaeological assessment requirements the number of known Woodland sites in the Kingston region has grown dramatically in the last fifteen years Small inland sites located along escarpment edges have increasingly been discovered. This paper summarizes the different geographic and archaeological conditions of the Kingston region and highlights some of the recent discoveries. In particular, the importance of small sites in understanding the Woodland occupation of the Kingston area is stressed.

Grupta, Gisela (see Olsen, Karyn)

Guerschman, Jorge Miguel Andrade (University of Algarve-Portugal)

The Fauna from Costa do Pereiro (Central Portugal): A Rural Population Eating Habits During the Second Iron Age (Friday, Poster Session A, 9:00am-12:00pm, Foyer)

Costa do Pereiro is a small archaeological site, located on a small platform in the limits of Serra d'Aire's hills in Central Portugal. The 1995-1999 archaeological excavations, supervised by A. F. Carvalho, revealed a complex stratigraphic sequence, in which one of the layers (Ibase) yielded an occupation from the Second Iron Age (500 - 100 B.C.E.). The results of the fauna collection analysis are consistent with its usage as a rural small farm. In terms of animal evidences, Costa do Pereiro provides us valuable data on the different species that composed the diet of that community. The collection is exclusively composed by mammals, mostly domesticated. Sheep (*Ovis aries*) and goat (*Capra hircus*) are the main source of meat, and probably also provided dairy products and wool; they show that pastoralism was one of the main activities of Costa do Pereiro's inhabitants. Other domesticated animals are bovines (*Bos taurus*) and horse (*Equus sp.*) It is important to note that remains of wild animals have also been found, such as red deer (*Cervus elaphus*). The (domesticated) status of swine (*Sus sp.*) and rabbits (*Oryctolagus*

cuniculus) remains unsure. Until now no other rural establishment dating from the First Iron Age and located in Central Portugal had its fauna studied. The now obtained results present an interesting set of data, especially when comparing with what was found in Alcáçova of Santarém (a complex walled urban context, located a few miles away from Costa do Pereiro, by the Tagus River).

Guiry, Eric J. (University of British Columbia), Mark Staniforth (Monash University), Bernice Harpley (La Trobe University), Stéphane Noël (Université Laval), Olaf Nehlich (University of British Columbia; Max Plank Institute for Evolutionary Anthropology), Colin Smith (La Trobe University), Vaughan Grimes (Max Plank Institute for Evolutionary Anthropology; Memorial University), and Michael P. Richards (University of British Columbia; Max Plank Institute for Evolutionary Anthropology)

Towards a Multi-isotopic Approach for Tracing Historical Meat Trade and Animal Husbandry through the Analysis of Shipwreck Faunal Remains (Saturday, Isotopes, 10:40-11:00am, West Ballroom)

Stable isotope analyses of faunal remains are becoming a popular means of approaching many aspects of animal husbandry and trade in antiquity. These techniques are as yet underutilized amongst historical and nautical archaeology but may have excellent potential given the range of novel developments in human-animal relations occurring during this time period. Salted meats were an important foodstuff during historical times, not only for provisioning long-distance voyages but also as sustenance at New World colonies. The comingling of remains of imported salt meat products with locally raised livestock in the archaeological record can complicate the application of isotopic techniques to questions of human-animal relations in historical times. This paper explores the stable carbon, nitrogen, and sulfur isotope values of bone collagen from barreled salt pork and beef products recovered from the William Salthouse (a ship wrecked in 1841 while undertaking a journey from Canada to Australia) in relation to other data from livestock originating from historical old and new world animal husbandry operations. Results show an unexpected heterogeneity in shipwreck animal life histories and highlight a need for better understanding of variation in animal husbandry practices in major livestock production centers during the historical period. Additional analyses of other shipwreck faunal assemblages is recommended.

Gupta, Neha (Lakehead University)

Geovisualizing Archaeological Fieldwork Archives: 2.5D Photorealism of an Animal Mass Grave (Saturday, Virtual, 11:20-11:40am, Prince of Wales)

Geovisual, short for geographic visualization, attempts to detect unseen geographic and spatial patterns and relationships in complex data. It results from the interaction with, and creation of visual media and technologies to enrich the scientific process and promote unexpected insights into time-dependent spatial phenomena. Previous approaches in visualization of archaeological fieldwork archives have focused on the preservation of artefacts and on virtual reconstruction of the built environment. While fruitful, these approaches underestimate variability in field excavation and recording methods, obscuring challenges archaeologists face when visualizing spatially-explicit information and photographic material in archival collections. This paper presents the case of an animal mass grave at the Parc Safari cemetery which was excavated over two seasons by different researchers who used different tools and technologies, a

situation that presents challenges and opportunities for post-field analysis and impacts our overall understanding of burial practices.

Gupta, Neha (Lakehead University, Orillia)

What Is 'Open Data'? What It Can Mean for the Practice of Archaeology in Central Ontario (Thursday, Central ON, 11:20-11:40am, Duke of Connaught)

'Open Data' broadly refers to an approach to share information via the World Wide Web that governments (city, county, provincial, or national) have collected on us, its residents. For some archaeologists the 'open' movement refers to a wide range from free and readily available software, publishing platforms, to data management and curation and the dissemination of data over the internet. While fruitful, archaeologists have paid much less attention to meaningful processing of 'open' digital information and the unexpected insights we gain from them on the practice of archaeology. In this paper, I present preliminary analysis from central Ontario archaeology to highlight the value of geovisual analysis of archaeological fieldwork as a way to understand relations between local communities and nationally-oriented institutions. I consider the Province of Ontario's Open Data platform as a tool that can be used to share information on Ontario's archaeological sites.

Gustavsen, Lars (see Nau, Erich)

Hall, Bryan (International Field and Forensics Training)

"Using Archaeology and Anthropology within a Humanitarian Multi-disciplinary Framework"— The Internal Armed Conflict and Post Conflict in Guatemala (Thursday, Various Papers I, 11:40am-12:00pm, Prince of Wales)

Guatemala, a country steeped in ancient history, rich cultural diversity, and rugged beauty has experienced tremendous upheaval and social change throughout its history—including one of the most protracted brutal periods largely against indigenous people in recent memory. This so named 'armed conflict' was characterized by counterinsurgency which left approximately 200,000 dead, more than 45,000 disappeared, 70,000 widows and over 1,500,000 displaced (REMHI 1998; CEH 1999). The Guatemalan Forensic Anthropology Foundation (*Fundación de Antropología Forense de Guatemala*, FAFG) is a non-governmental, autonomous, technical-scientific, not-for-profit organization that contributes to the strengthening of the justice system and to the respect for human rights through the investigation, documentation, dissemination, education and awareness raising regarding the historic violations of the right to life and the cases of non-clarified deaths. 2013 marked the first time in which the FAFG (in conjunction with the *International Field and Forensics Training*) launched a field school programme where students actively participate in these investigations, working with forensic archaeologists, social anthropologists, local authorities, survivors, and family members to aid in this process. This is the account of one Canadian archaeologist's experience in February of this year.

Hammer, TJ (Parks Canada)

In Lieu of Federal Legislation: Archaeology on Federal Lands (Friday, Heritage, 11:20-11:40am, Windsor)

This paper discusses archaeology on federal lands in Canada and the complexities of such in absence of federal heritage legislation. The paper outlines past attempts at establishing federal legislation and changes in practices and related legislation over time. The goal of the paper is to describe the intricacies and current regime

of Canadian federal archaeology for archaeologists considering work on federal lands.

Hamilton, Anne C. (Archaeological Services, New Brunswick) and Brent D. Suttie (Archaeological Services, New Brunswick)

Applying a Streamlined Workflow Management Plan to Large Scale Mitigation Projects: A Case Study from Southwestern New Brunswick (Friday, Modernization, 11:40am-12:00pm, West Ballroom)

In 2011, a large-scale research and mitigation project associated with a highway realignment was undertaken in southwestern New Brunswick by the provincial Archaeological Unit. The importance of the archaeological sites as well as construction scheduling constraints prompted the management team to develop a streamlined workflow management plan that included new methodological and technological practices into existing excavation strategies. The result of this approach was the realization of significant efficiencies in cost and time, enhanced data collection methods, and the collection of new types of data. This presentation discusses the application of this streamlined workflow management plan to the excavation of four Pre-Contact archaeological sites in southwestern New Brunswick, the major successes of the approach, and implications for the management of future excavation projects in New Brunswick.

Hamilton, Scott (Lakehead University)

The Long Walk North? The Initial Peopling of the Lake Agassiz Basin of Northwestern Ontario, North-central Manitoba (Friday, Boreal, 9:00-9:20am, Prince of Wales)

Information has been slowly accumulating about deglaciation, meltwater lake configuration, and eventual drainage in northwestern Ontario and north-central Manitoba. This emerging synthesis begs a critical review of long-held notions about initial human occupation of the central Canadian Shield.

Throughout his career, J.V. Wright repeatedly proposed the mid-Holocene origins of Shield Archaic as deriving from Northern Plano in southwestern Nunavut. When confronted with climatic warming and forest development, he proposed that northern caribou hunters responded by becoming generalized forest foragers, and slowly expanded south and east around Hudson and James Bays, to eventually occupy a broad arc of the Canadian Shield from northern Saskatchewan to northern Québec.

This proposition has remained relatively unchallenged, in part because of Wright's enduring role in Canadian archaeology, and because of very limited Subarctic research. This paper considers sparse new information that suggests comparatively early occupation of far northern Ontario, and proposes alternative routes and origins for early to mid Holocene occupants of far northern Ontario.

Hamilton, Scott (Lakehead University)

Plano Occupation of Northwestern Ontario: Recent Developments in Lakehead Complex Studies (Saturday, Paleo-Indian, 9:00-9:20am, Suite 300)

Beginning with R.S. MacNeish's excavations at the Brohm site in the 1940s, knowledge has slowly accumulated about late Paleo-Indian sites in the Thunder Bay region. Dubbed the Lakehead Complex, most of the published research focuses upon sites associated with early Holocene glacial lakeshores and bedrock exposures of the primary toolstone. Less well-known sites

suggest a much more complex settlement system and economy. Based primarily upon the results of CRM research coupled with ongoing graduate research at Lakehead University, this paper reviews recent observations about Plano occupation of the emerging post-glacial landscape.

Hamilton, Scott (see Barry, Jacqueline)

Hardy, Marie-Hélène (Université de Montréal), Anne-Marie Grimoud (Université Paul-Sabatier III), and Isabelle Ribot (Université de Montréal)

Identity of a 19th Century Population Buried at St-Matthew Cemetery, Quebec City: Preliminary Results on Dental Morphologies and Comparison with Other Data (Friday, St. Lawrence, 4:20-4:40pm, Prince of Wales)

This research is part of a team project analysing historic Euroquebecois cemeteries, in order to explore various aspects of past populations (diet, health, identity) between the 17th and 19th centuries. It focuses on the use of dental morphologies as a 'paleogenetic' tool to better understand the identity of various individuals buried in Montreal (Notre-Dame, 1691-1796) and Quebec City (Saint-Matthew, 1771-1860). As suggested by various fields (history, demography, archeology) as well as by preliminary isotope studies (d¹⁸O from enamel carbonate), the first urban centres in colonial Quebec increased in size with the arrival of various groups. These immigrants originated mainly from Europe, first from France and then from other regions (British Empire), and admixed to some extent with local populations. Two issues related to dental morphology are therefore addressed here: 1) does variation observed between the two cemeteries suggest different or similar genetic contributions, knowing that Northwestern Europe was the main source?; 2) and do trait frequencies within each cemetery indicate the presence of specific groupings (i.e. presence of family burial units, immigrants of first or second generation as identified isotopically)? For this purpose, the Arizona State University Dental Anthropology System was used as a standardized methodology to record dental traits in each cemetery. Preliminary results focus on the frequencies of dental variants that could well separate the two cemeteries as well as on the within-site variation. Finally they are discussed in relation to the historical context.

Harplay, Bernice (see Guiry, Eric J.)

Harrison, Stephen (see Passmore, David G.)

Hartman, Shelley (Carlton University)

A Mycenaean Enigma: The 7-Armed Octopus from Grave Circle A (Thursday, Old World I, 9:00-9:20am, Prince of Wales)

In Graves IV and V of Mycenaean Grave Circle A, Heinrich Schliemann discovered 53 7-armed gold octopi in 1876. They persist as an obscure but irritating anomaly. Schliemann himself did not even notice their uniqueness when he unearthed them. He assumed they had 8 legs, writing that they had 'acht Füße' in Mykenea -1878. This paper appears to be the first exploration of the 7-armed octopus, an overlooked enigma from the Greek Bronze Age. I forward that the use of a 7-armed octopus motif was no accident.

In an archaeological context grave goods are important symbols. The octopi were made of a high-status metal and were deliberately chosen for inclusion with the deceased. The 7-armed species, *Haliphron atlanticus*, is the largest cephalopod in the world. Inference from historical marine data places the species in the Mediterranean in ancient times and reference to it is found in

Pliny. Few, if any, creatures in the Mycenaean world were as often painted, engraved or cast, as the octopus. The spread of the new decorative octopus motif on pottery in LM IB/LH IIA appears to mirror the expansion of the Mycenaean in the Aegean. The octopus enjoyed prominent placement in the two most important Mycenaean megarons. In addition, using citadel locations and referencing Hittite correspondence, the major spheres of influence can be conservatively mapped, illustrating fairly the octopus metaphor for the Mycenaean hegemony. The 7-armed octopus, and later all octopi, are suggestive of an iconic emblem for a loose confederation of all Mycenaean centers.

Haruta, Matthew (see Beaudoin, Matthew)

Haruta, Matthew (see Cortese, Brittany)

Haukaas, Colleen (University of Western Ontario) and Lisa Hodgetts (University of Western Ontario)

New Opportunities in Digital Archaeology: A Comparison of Low-cost Photogrammetry for the 3D Documentation of Archaeological Features on Banks Island, NWT (Saturday, Circumpolar, 3:40-4:00pm, Duke of Edinburgh)

In recent decades, archaeologists have increasingly engaged in community-based research efforts and collaborative projects with local, descendant, and Indigenous communities in the Canadian North. Various forms of digital 3D scanning technologies have been found to be useful tools for sharing archaeological information with communities in ways that are more innovative and engaging than previous methods of archaeological dissemination; however, many common forms of 3D scanning are prohibitively expensive and require specialized knowledge to use. Emerging photogrammetry software, a technology that uses 2D photographs to extract 3D data and create 3D digital replicas, is in contrast low-cost and user-friendly and has been found useful in several contexts in archaeological research. However, this technology has not been used extensively to document archaeological features *in-situ*, to document small-scale features typical of the Canadian North, or to share finished results with public audiences. This presentation explores the use of low-cost photogrammetry as part of the Ikaahuk Archaeology Project to document archaeological features on Banks Island, NWT using two programs: Autodesk 123D Catch and Agisoft Photoscan. It demonstrates that both programs are useful for accurately and quickly documenting, reconstructing, and visualizing several types of archaeological features common to the North, and both can create results that are compatible for online dissemination with a community audience.

Hawkins, Alicia (Laurentian University)

Just How Anomalous Is the Ellery Site? (Thursday, Central ON, 9:20-9:40am, Duke of Connaught)

The Ellery site is a Wendat site in Clearwater Township that appears to have two components, one dating to the mid-seventeenth century and one dating to the early to mid-sixteenth century. Wendat sites are frequently characterized as single component, but to what degree is this true in Simcoe County? If there are other instances of multicomponent sites, why would this be the case in Simcoe, but not in other parts of Ontario?

Hawkins, Alicia (Laurentian University)

The Ball Site in Context (Friday, Ball Site, 11:20-11:40am, Suite 300)

Dean Knight's treatment of the Ball Site is unique in Huronia. No Wendat site in Simcoe County has received such sustained and thorough examination. The complete excavation of the Ball site gives us insight into spatial variation within a Wendat village. It also provides an unparalleled sample of artifacts. In this paper, I discuss how the Ball site excavations have impacted and will continue to inform our understanding of the early contact period Wendat.

Hawkins, Alicia (see Malleau, Kaitlyn)

Hawkins, Alicia (Laurentian University), Sally Stewart (Trent University Archaeological Research Centre), and Ted Banning (University of Toronto)

A Different Approach to Archaeological Survey (Friday, Modernization, 9:40-10:00am, West Ballroom)

Survey is a fundamental part of the archaeological process in both consulting and research archaeology. However, archaeologists frequently pay only cursory attention to questions such as the transect spacing, variation in the obtrusiveness of artifacts and individual differences in surveyor ability. In this paper we describe experimental work to better understand factors that affect survey results and we go on to explain how these results can be applied to develop better survey designs.

Hawkins, April (Royal Ontario Museum) and Jeffrey Dillane (McMaster University)

A Birdstone in Hand: Mapping Birdstones in the Royal Ontario Museum Collections (Thursday, Old Data, 2:20-2:40pm, Duke of Connaught)

Birdstones are finely ground and polished stone objects found in highest concentrations around the Great Lakes in archaeological deposits of terminal Archaic age through the Early Woodland period. Over the past 100 years the Royal Ontario Museum has amassed likely the largest museum collection of birdstones in North America. But what does an antiquarian museum collection of birdstones contribute to the archaeological record? Much of the provenience data relating to these unique artifacts is missing due to incomplete donor information and data attrition. This loss of provenience combined with issues of collection bias and uneven sampling could be viewed as an erosion of the archaeological value and meaning of these objects. However, despite the lack of site context for many of the artifacts there is a significant contribution to be made through the analysis of the ROM birdstones. Through the examination of multi-scalar spatial distributions and comparative analysis we argue that new information can still be derived from the ROM birdstones. Approaches such as ours demonstrate that old collections provide more than just opportunities to re-examine the archaeological record, it presents an opportunity to generate new and collaborative interpretations.

Hélie, Jean-François (see Toupin, Rémi)

Hewitt, Christopher (Western University)

Archaeology and Landscape Change: The Battle of Hastings (Thursday, Hist Arch, 9:40-10:00am, Windsor)

The Battle of Hastings (1066) is one of the most widely studied battles in medieval history. Yet despite the importance that

research shows the landscape to play in the outcome of such conflicts, few studies have examined in detail the landscape of the battle or the role landscape plays in its eventual outcome. This study, consequently, in examining the landscape, seeks to quantify the amount of change to the topography since the battle. The analysis will be undertaken using a geographic information system (GIS) with qualitative and quantitative techniques. Factors to be considered in the study include local archaeology, changes to the topography and land use since the battle. Thus, as part of a broader attempt to better explain the outcome of the conflict; available up-to-date data will be combined in a series of detailed state of the art maps which will assess the original landscape and bring an entirely new perspective to the nearly millennium long literature on the battle.

Hill, Bryan (see Peuramaki-Brown, Meaghan)

Hinterleitner, Alois (see Nau, Erich)

Hodgetts, Lisa (see Eastaugh, Edward)

Hodgetts, Lisa (see Haukaas, Colleen)

Hodgetts, Lisa (see Kelvin, Laura)

Hodgetts, Lisa (see Moody, John F.)

Hodgetts, Lisa (see Morris, Zoe H.)

Hodgetts, Lisa (see Flint, Tessa)

Hodgetts, Lisa (see Szpak, Paul)

Hodgetts, Lisa (University of Western Ontario)

Town and Gown: Challenges Along the Road to Community-University Research Collaboration on Banks Island (Friday, Community, 2:20-2:40pm, Suite 300)

The rise of community-based approaches in archaeology in recent years has seen many fruitful collaborations between communities (both Indigenous and non-Indigenous) and outside researchers, and has benefitted both communities and archaeological interpretation. However, academic structures and expectations are often at odds with those of communities, which can raise challenges for university researchers wishing to undertake community-based research. Other challenges apply more broadly to community-based archaeology, whether or not members of the academy are involved. Political structures within communities can both facilitate and complicate collaborations with outside researchers, legislation often requires that artifacts are housed in centralized repositories far from the communities where they were unearthed, and communities often lack the capacity (in terms of personnel and training) to participate in some aspects of research. This paper explores some of these challenges in the context of ongoing efforts to develop a community-based archaeology project on Banks Island in the Northwest Territories. It also outlines the project's attempts to overcome them through an emphasis on process over product; the use of social media for public outreach, education, and dissemination; the use of virtual and physical replicas to repatriate artifacts; and capacity building through internships and youth camps.

Hodgetts, Lisa (University of Western Ontario), M. A. P. Renouf (Memorial University), Edward Eastaugh (University of Western Ontario), and Patricia Wells (University of Western Ontario)

Revealing the Buried Structures at the Dorset site of Phillip's Garden, Newfoundland: The Results of the 2012 Magnetometer Survey (Saturday, Circumpolar, 10:00-10:20am, Duke of Edinburgh)

Phillip's Garden (EeBi-1) is the largest, most complex and intensively occupied Dorset site on the Island of Newfoundland, and one of the largest known Dorset sites anywhere. The site's occupants constructed semi-subterranean dwellings, which in some cases are still visible on the site surface. Others have been obscured by subsequent activity at the site, and the precise number of dwellings has proved difficult to establish despite extensive excavation. Here we present the results of the 2012 magnetometer survey of the site, which was part of an integrated survey program that also included ground penetrating radar and high precision GPS, and sought to provide a comprehensive and updated map of the visible and buried house remains at the site. The magnetometer survey identified twelve regularly spaced buried depressions which may represent dwellings. It also identified numerous other anomalies thought to represent hearths, tent rings and midden deposits.

Holly, Donald H. Jr (see Wolff, Christopher B.)

Horn III, Sherman W. (Tulane University)

"You Just Point at a Series of Small Walls and Say...": Problems in the Interpretation of Middle Preclassic Lowland Maya Architecture (Thursday, Old Data, 4:40-5:00pm, Duke of Connaught)

The ancient Maya practice of continuous building in specific areas has been recognized for over a century. The inhabitants of Maya centers built larger and more elaborate structures over the remains of earlier, often simpler buildings, in accretionary cycles that sometimes spanned hundreds of years or more. Architectural remains from early periods of Maya prehistory, especially the Middle Preclassic (900 – 400 BC), are often buried deeply beneath successive construction stages and revealed at the narrow bottoms of deep soundings. Horizontal exposures of early architecture are often impossible without dismantling later monumental structures, which is expensive, time consuming, and increasingly frowned upon by governments interested in promoting tourism.

Researchers interested in early Maya prehistory have few tools for interpreting the buried and partially destroyed architectural remains found at the bottom of a four square meter test unit. We tend to draw from three sources to make sense of this data: 1) a few sterling examples of large horizontal exposures; 2) a prevailing paradigm of early settlement as "simple" village societies; and 3) the now-mature field of household archaeology. Interpretive models of Middle Preclassic architectural form, function and development suffer from a lack of rigor in formulation, but are regularly accepted as standards when working with limited datasets. This paper will discuss how current concepts of Middle Preclassic architecture overlook variability in building form, construction techniques, and the tempo of building activity through time at different construction loci, and the implications of this oversight on our view of early Maya social organization.

Howie, Linda (University of Western Ontario; HD Analytical Solutions) and Joanna Potter (University of Western Ontario)

A Vignette on Vinette: The Technology and Origins of Early Woodland, Vinette I pottery at the Dawson Creek Site, Ontario (Saturday, Michael Spence, 2:00-2:20pm, Prince of Wales)

Vinette I is the type name given to the earliest pottery found on archaeological sites in Central and Atlantic Canada. It is considered a material indicator of human activity dating to the Early Woodland Period (900B.C.-400B.C), as well as participation in the Meadowood Interaction Sphere, co-occurring with a suite of highly distinctive material items that circulated over a wide geographic area. Vinette I vessels are 'sack-shaped', a moderate size and most often have cord-marked surfaces. They are characterized invariably as crudely made and friable; bodies are thick-walled, low-fired and coarse-textured. Macroscopic and low-magnification studies of compositional characteristics have interpreted the characteristic 'grit temper' as representing 'crushed rock' that was intentionally added by the potter. Feldspar, mica and quartz are mineral types consistently identified. It is thought that the mobile bands of this period made small quantities of pottery for their own use, as required to fulfill immediate cooking, storage and food processing needs. Patterns of geographic movement and exchange remain poorly understood, however, due to the paucity of direct physical evidence linking pots to geological resources on the landscape.

This paper presents the results of a pilot study of the technological and provenance characteristics of Vinette I pottery using thin-section petrography. The material analysed derives from Dawson Creek, a small, seasonally occupied, deer-hunting and nut-collecting camp situated on Rice Lake. The evidence and behavioural significance of the compositional variation observed is examined in light of current assumptions concerning manufacturing techniques and patterns of circulation and consumption.

Howie, Linda (see Striker, Sarah)

Howie, Linda (see Moody, John F.)

Huminicki, Michelle (see Peuramaki-Brown, Meaghan)

Hunt, Ryan (see Compton, Beth)

Hunter, Jamie (J. Hunter Heritage Consulting)

The Ball Site Bead Assemblage (Friday, Ball Site, 10:40-11:00am, Suite 300)

This paper discusses the bone, ceramic, glass, shell, and wooden bead assemblage from the Ball site excavations 1975-2000 undertaken by Dr. Dean Knight. The results suggest that shell and bone beads may have been manufactured in Europe and traded to Native groups in North America. It also recognizes that the Huron/Ouendat peoples had a sophisticated colour preference for glass beads. Based on the Ball site assemblage the glass beads date to between AD 1590 and 1610, which is the earliest glass bead assemblage so far recorded in Huronia derived from good archaeological contexts. The paper also examines intra-site distribution of glass beads to provide some insight into understanding the Ball site village development over time.

Izaguire, Dario (see Denton, David)

Jackson, Lawrence J. (Northeastern Archaeological Associates Ltd.)

Recently Discovered Early and Late Palaeo-Indian Sites in South Central Ontario: Missing Pieces (Saturday, Paleo-Indian, 10:00-10:20am, Suite 300)

This paper provides descriptions of some small but interesting Palaeo-Indian sites found in the course of consulting work, as well as some additional work at a known research site. Each site offers little glimpses of new data and new ways of looking at the Palaeo-Indian occupation of south-central Ontario. From McLachlan Ridge, a Holcombe and Hi-Lo kill site area near Whitby, the Waverly Heights fluted point site with calcined cervid bone on a high drumlin overlooking the Otonabee River in the city of Peterborough, to the Cooper fluted point site with some unexpected wolf remains on the south shore of Lake Simcoe, small sites continue to amplify our knowledge of both Early and Late Palaeo-Indian occupation in Ontario.

Jacobson, Talva (Michigan Technological University)

Dealing with Flood Disasters at Heritage Sites: Creating Resiliency through Awareness – A Long Term Conservation Strategy for Protected Community Historic Resources in Alberta (Friday, Heritage, 9:40-10:00am, Windsor)

Flood waters penetrated both Medalta Potteries National Historic Site and The Medicine Hat Brick and Tile Co. Provincial Historic Resource, in June 2013, creating awareness that archaeological resources inside designated sites are susceptible to deterioration or complete loss when exposed to unforeseen disaster. The flood that impacted Southern Alberta was one of the most damaging floods in Alberta's history. In addition to the tens of thousands of people displaced during this event, there were also many heritage sites unprepared to deal with the damage caused by flood waters. Since designation, Medalta Potteries and the Medicine Hat Brick and Tile Co. have become a community initiative with an active museum and interpretive program, community classroom, event center, and contemporary artist in residency program. These sites protect an extensive collection of ceramics, a variety of kiln structures and archaeological features, historic resources, and machinery. Medalta Potteries have shown that heritage is complicated and the uses or consumers of heritage are multidimensional. Disaster has shown that designation does not guarantee priority. Flooding has proven that emergency protocol and preservation are contradictory. An examination of how the archaeological resources at Medalta Potteries and The Medicine Hat Brick and Tile Co. were impacted during June flooding will be revealed, what steps were taken to prepare and recover these resources will be considered, and the real cost of rebuilding efforts will be evaluated in order to build an awareness of challenges faced by communities during emergencies. Protecting historic remains during disasters require a method aimed at minimizing loss and resiliency relies upon community collaboration and awareness. I will be discussing who is in charge of conservation, if the cost of long term conservation is too high, and what the archaeologist's role is during disaster recovery and stewardship.

Jenkins, Tara (Timmins Martelle Heritage Consultants Inc.)

Contexts, Needs and Social Messaging: "In Situating" Iroquoian Human Bone Objects (Thursday, Woodland, 2:20-2:40pm, Suite 300)

Typically categorized as trophies, human bone objects recovered from archaeological sites across southern Ontario represent a continuous shared Northern Iroquoian tradition. Human bone was

manufactured into items of personal adornment, musical instruments and utilitarian tools. Most were recovered within villages in large middens, interior longhouse refuse pits and other public spaces. My study of archaeological literature assembled an inventory of human bone objects providing detail on provenience and descriptive attributes. The rationale was to investigate human bone objects in their recovery contexts to search for temporal and spatial trends and to provide insight into cultural processes that created the assemblage. To accomplish this, I studied human bone objects in context employing two case studies of contemporary Iroquoian village sites to identify spatial trends and provide interpretative value. I discovered that human bone objects were important indicators of group identity and their disposal signified a terminating group identity, marking new alignments in the social and political structuring of the people. Whether enemy or ancestor, repositioning human bone objects within a broader contextual framework, as opposed to stand alone artifacts, allows a more holistic explanation as to why some skeletal elements were deposited in a context considered set apart from “normal” burial practices.

Jones, Brian (see Singer, Zachary)

Julig, Pat (Laurentian University)

Discussant for “Faint Traces on the Landscape: Approaches to Paleo-Indian Research and Strategies to Maximize Future Studies” (Saturday, Paleo-Indian, 2:20-2:40pm, Suite 300)

Karcich, Grant (University of Toronto)

Middle Woodland to Modern Day Continuity of Iroquoian and Algonquian Populations in the Great Lakes Region of North America (Thursday, Woodland, 2:40-3:00pm, Suite 300)

Stone tools, faunal artifacts, and physical anthropological evidence are suggestive of related peoples occupying southern Ontario from the Middle Woodland to the Late Woodland periods. Recently, a growing list of morphologic and genetic evidence, points to a continuity of populations occupying the Great Lakes region of North America, between the Middle Woodland period and the present day. Our cranial morphological study links certain Late Woodland and historic populations, including Ontario and New York Iroquoian groups, and the Western Basin population of southwestern Ontario. This analysis demonstrates close genetic distance between these groups. In the same morphological study we examined the Serpent Mounds and other Middle Woodland populations and found a similarity to historic Algonquian groups. In addition, our work with DNA extractions from individuals buried at the Middle Woodland Donaldson Site, shows the presence of mitochondrial haplogroup X in frequencies like modern Algonquian populations and a few other northern North American groups. Separately, the cranial and DNA results give strong evidence, while combined they provide compelling evidence, for the presence of one or several related populations from the Middle Woodland period to the present. The same cranial data also suggests that our studied groups have genetic links to Late Archaic Ontario populations. The morphologic and genetic analysis is ongoing, and we anticipate additional robust results in the near future.

Katzenberg, M. Anne (see Edwards, Kim)

Keddy, Josh

What's in the Box? A Study of Labrador Archaic Lithic Assemblages Using Extant Collections (Thursday, Lithic, 9:20-9:40am, Duke of Edinburgh)

Northern Labrador has seen extensive archaeological investigations over the last half century, with projects focusing on everything from its more recent European inhabitants to the first people to live there. Recently a number of artifact collections were returned to The Rooms provincial museum in St. John's, Newfoundland, where I was able to compile and study the lithic assemblages from eight early to middle Labrador Archaic sites (HeCi-11, HdCg-07, HdCh-37, HdCg-33, HdCg-19, HcCh-07, HiCj-05, and HdCh-09). The goal of this analysis was to identify material and morphological trends relating to the change between the early and middle Labrador Archaic occupations of northern Labrador, and to create a firm quantitative basis from which future research can be launched. While some of these changes and trends have been remarked upon in Labrador Archaic lithic assemblages, a mathematical metric and material description of these changes did not exist in the extant literature. Toward this end traditional measurement techniques as well as a digital approach to artifact analysis were undertaken in order to better understand any morphological shifts in artifact form. Material frequencies were also analyzed and factors including risk management within the reduction process and the distance from each site to the source areas of different materials were determined to have had an impact on Labrador Archaic lithic strategies.

Kellogg, Daniel (Archaeological Services Inc.)

The Ground Beneath Their Feet: The Results of Four Magnetometry Surveys on Late Woodland Sites (Thursday, Geophys, 9:40-10:00am, West Ballroom)

Archaeological Services Inc. conducted four magnetometry surveys on Late Woodland sites to determine if common subsurface cultural features, such as post moulds, pits and hearths could be recorded. In addition, it was hypothesized that the living surface within an occupation structure could be recorded due to the detectable increased levels of magnetic susceptibility in the soils of former living surfaces. At each site a GEM System GSM-19 gradiometer was used within a limited survey area located within areas of high probability based on previous assessment results. The first survey recorded anomalies, but due to magnetic noise related to plough disturbed soils and nearby vehicle traffic, the findings were inconclusive. The remaining three surveys recorded distinct anomalous trends or areas suggesting evidence of settlement patterns. Subsequent excavation confirmed the presence of a cabin on the second site, a palisade on the third site, and a longhouse and palisade on the fourth site. The entire area between the walls of the longhouse created an anomaly which clearly defined the living surface within the interior of the structure. Overall, the results of these surveys provide evidence that magnetometry, under the right conditions can be used to detect subsurface settlement patterns associated with Late Woodland sites.

Kellogg, Dan (see Venovces, Anatolijs)

Kelvin, Laura (University of Western Ontario) and Lisa Hodgetts (University of Western Ontario)

The Problem with "Community" in a Community-Based Research Project: Notes from a Preliminary Field season in Sachs Harbour, NWT (Friday, Community, 2:40-3:00pm, Suite 300)

Communities are often easily defined by political, ethnic or geographic boundaries and are assumed to have common interests and homogenous value systems. However, upon closer inspection communities are often revealed as complex, multifaceted, and heterogeneous. People assume to be a single community is often comprised of several communities with fluid memberships. This makes identifying and effectively defining a community difficult, even for people who are part of the community, and raises challenges for community-based research. In the summer of 2013 Kelvin conducted preliminary ethnographic research in the Inuvialuit community of Sachs Harbour, NWT (pop. 80) as part of the Ikaahuk Archaeology Project. The goal of this research was to canvas opinions about archaeological research and the future path of the project, and to begin recording family histories and Inuvialuit knowledge of the land. It soon became clear that people within the community had different perceptions of archaeology and competing histories of the island. This paper will explore this variability and consider its implications for developing a community-based archaeology project.

Kelvin, Nikki (University of Sassari)

Mummies, Babies, Bones, and Ancient Pathogens in a Crypt in the Cathedral Sant' Antonio Abate, Castelsardo (Saturday, Poster Session B, 9:00am-12:00pm, Foyer)

The church of Sant' Antonio Abate in Castelsardo, Sardinia, Italy, was constructed in the late 16th to the beginning of the 17th century. It became the seat of the diocese of Ampurias in 1503 and has undergone many reconstructions and renovations in the years since, most notably in 1597 and again in the 18th century. A recent renovation to expand the cathedral's museum led to the discovery a crypt that had a unique set of environmental conditions which allowed the skeletal remains to be exceptionally well preserved, including several mummified individuals. The crypt was used for burials from the 17th century to the 19th century. During this period in Sardinia, several intense outbreaks and epidemics of infectious diseases occurred, including *Yersinia pestis*, smallpox, malaria, measles, and typhus. Examination of the excavated remains indicated that male and female adults and children were interred in the crypt. Additionally, evidence of mother-infant and other family burials was also found, suggesting concurrent burials consistent with outbreaks and epidemics. We were able to examine not only well-preserved bone and teeth specimens but also muscle, hair, and skin specimens. Specimens were examined for gross skeletal anomalies; histological examination of muscle and skin was performed; and bone was examined for microscopic and scanning electron microscopic abnormalities. DNA and RNA were extracted from dental pulp and bone, and microarrays were conducted as well as sequencing for the identification of *Yersinia pestis* and a variety of other pathogens associated with epidemics during the 17th to 19th century.

Kenel, Kait (Lakehead University) and Carney Matheson (Lakehead University)

Identification of Smoke Plants Present in Native North American Archaeological Smoking Pipes with Gas Chromatography/Mass Spectroscopy (Thursday, Floral and Faunal, 4:00-4:20pm, Prince of Wales)

In the past, we have relied almost completely on the ethnographic record to determine the substances people are or have been smoking. The problem with this approach is that cultures are dynamic and the ethnographic and oral records can only provide reliable information for a relatively short period of time. In addition, many traditional cultures have been lost throughout the last several centuries, and as such the available literature is limited to cultures only still in existence.

Until recently, residue analysis of archaeological material was generally restricted to different microscopic techniques, for example plant microfossil analysis. With the introduction of chemical residue analysis - in this case GC/MS - the identification of plant remains has become much more reliable. Through chemical residue analysis of smoking pipes, we will be able to detect and identify the molecules present that will lead us to determine which plants or substances may have been smoked at the time the pipes were in use. The specific method in this case is a Gas Chromatography/Mass Spectroscopy (GC/MS) test. Rafferty (2002; 2006), Rafferty et al. (2012), and Tushingham et al. (2012) have shown that nicotine can be detected from archaeological smoking pipes, and in the case of Tushingham et al. (2012), several other compounds were characterized as well.

Kenward, Tegan M. (University of Manitoba), Gregory G. Monks (University of Manitoba), and Jessica Thomas (University of Manitoba)

Preliminary Results of aDNA Testing of Suspected Northern Fur Seal Fetal Bone (Thursday, Floral and Faunal, 4:20-4:40pm, Prince of Wales)

Northern Fur Seals (*Callorhinus ursinus*) currently breed only on the Pribilof Islands in Bering Sea, yet their bones are found in archaeological deposits along the Northwest Coast as far south as California. While the current migratory pattern of adult females, juveniles and young of the year sees them migrating south as far as California to feed offshore before returning to the breeding grounds, the adult males forage in the open north Pacific Ocean before returning to the Pribilof Islands. Recent research (Etnier 2002; Gifford-Gonzalez 2004; Moss et al. 2006; Newsome et al. 2007a, 2007b; Pinsky et al. 2010) has applied isotopic, genetic, morphometric, historical and theoretical approaches to understanding the discrepancy between present and past distributions of this species, its causes and its chronology. This paper presents preliminary aDNA test results from a small sample of fetal archaeological bones from the west coast of Vancouver Island, British Columbia, that are suspected to be Northern Fur Seal. The test results are combined with metric analyses of immature and mature Northern Fur Seal bones to characterize the live population and compare its structure and biogeography with that of modern fur seals.

Keron, James R. (Western University)

Spatial Analysis of Discrete Genetic Traits: Dakhleh Oasis, Egypt (Saturday, Spatial, 11:20-11:40am, Windsor)

This paper examines the hypothesis that the graves in Kellis-2 cemetery in the Dakhleh Oasis tend to cluster by family. The cemetery is an early Christian cemetery, used from the first to the

fourth centuries AD, with individual burials in the Christian orientation. The analysis uses 43 discrete genetic cranial traits from approximately 180 burials, all of which can be identified as to sex. An ArcGIS database was developed and the trait data joined to the GIS. The statistical analysis was carried out using various spatial statistics some of which are part of ArcGIS and some of which were developed in the statistical language R. Some of these derive from archaeology and some from other fields. The intent is to eventually integrate the R routines directly into ArcGIS and make them available to a wider audience. Results of the analysis support the hypothesis that family graves tend to cluster.

Kingston, Brock (Cansel Survey Equipment Inc.)

Technology Applications in Archaeology (Friday, Modernization, 10:00-10:20am, West Ballroom)

This paper will explore new field data collection technologies and their application in archaeology, namely GNSS technology, 3D scanning technology, aerial drone technology, interactive project boards and modelling software. New technologies can often be used to enhance an existing workflow, be adopted as a replacement to past methods to increase efficiency and productivity and add more value to your deliverables with the possibility of greater visualization, interpretation and analysis.

Knight, Dean (Archaeological Research Associates, Ltd.)

Settlement Patterns at the Ball Site (Friday, Ball Site, 9:00-9:20am, Suite 300)

Twenty-five field seasons of excavation on the 9 acre Ball Site revealed the entire settlement pattern of the village including 72 longhouses, two palisades, numerous open spaces and 34 middens. This complete exposure allows us an unique opportunity to make interpretations about the village evolution, types of structures, and complexity of the palisades that would not be possible with only a partial excavation of the site. This paper deals with the possible interpretations of that settlement pattern and raises the question how much excavation is necessary in order to adequately deal with archaeological interpretations of settlement patterns.

Kolhatkar, Manek (Université de Montréal)

The Lithic Expression of Late Paleoindian Social Relations, from Quebec and Beyond (Saturday, Paleo-Indian, 9:40-10:00am, Suite 300)

Even as recent research has allowed archaeologists to expand their knowledge of Paleoindian lifeways, Northeastern North America's Late Paleoindians seem to have stayed out of focus. Harsh post-depositional processes, from acidic soils to erosion, plowing and domestic housing have in most cases left only lithic debris and broken tools for archaeologists to study. Starting with a site from the Northern Gaspé Peninsula (La Martre, Quebec), I will first show how detailed technological analysis coupled with experimental and ethnoarchaeological knowledge about stone knapping can nonetheless be used to investigate past cultural expressions at ancient lithic workshops. I will then expand my viewpoint by showing how broader social dynamics can be investigated along similar lines of description and processes and integrated to current Paleoindian inter-disciplinary research in Eastern North America.

Krist, Frank (see von Bitter, Robert)

Kucera, Matthias (Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology), Wolfgang Neubauer (Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology; University of Vienna), Martin Fera (University of Vienna), and Michael Doneus (University of Vienna; Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology)

Monitoring and Analysis of Excavation Processes Using Virtual Archaeology (Saturday, Virtual, 9:00-9:20am, Prince of Wales)

During the last years Virtual Archaeology (VA) turned out to be an important part of archaeological methodology for presenting results not only to the wide public but also to the scientific community. Reconstructing the past in terms of computer vision is one important branch of VA. Another one is the documentation and archiving not only of sites and objects but also the monitoring of archaeological excavations. For this purpose different surface documentation techniques were introduced and tested. With this paper we want to present our approach to a complete 3d data capturing procedure, resulting in a 4d model including time of a specific site or area.

In combination with a stratigraphic excavation, single layer plans needed to be developed further ending up in a 3d documentation of all excavated deposits defined by surfaces following the rules of stratification. Every excavation process has to be documented as accurately as possible for later reproducibility and analysis. It turned out that Terrestrial Laserscanning, Image Based Modelling and Handheld Laserscanning besides traditional and already widely used tools like totalstations provide the demanded accuracy. Furthermore the use of these techniques also helps to save time during the documentation process.

Keeping in mind that every excavation is a destructive, irreversible procedure the monitoring of this already interpretative process is crucial for further critical analysis of the preliminary archaeological hypotheses. These can now be tested using the wide range of tools provided by VA.

Lacroix, Dominic (Memorial University)

Relatives a World Apart: Regionalism and Group Identity in Archaic Newfoundland (Friday, Technology, 4:20-4:40pm, Duke of Edinburgh)

Until now, knowledge of the Archaic in Newfoundland has principally relied on information from only a handful of sites, located hundreds of kilometres apart, resulting in a patchy and over-generalized understanding of the period. This paper combines the results of a qualitative analysis of formal stone tool assemblages from 81 localities spread around the Island and a multi-criteria cost surface analysis exposing Newfoundland's inherent travel route network. These results demonstrate the presence of clear regional differences within Newfoundland. When different technological traditions are contrasted with other forms of regional patterns like site location preferences, access to food resources, burial ceremonialism, and Newfoundland's travel route network, three distinct regions with significantly different cultural patterns emerge. This regionalism is interpreted as the presence of at least three ethnic groups in Newfoundland during the Late Archaic, each settled in its own "country" and with its own unique set of traditions, weakening the long-held view of a single, monolithic Maritime Archaic tradition present across all regions of the Island.

Lamothe, Michel (UQAM) and Laurence Forget-Brisson (Université de Montréal)

Optical Dating at the Mailhot-Curran Site (BgFn-2) (Friday, St. Lawrence, 3:40-4:00pm, Prince of Wales)

The dating of the Mailhot-Curran (BgFn-2) archaeological site using optical luminescence is crucial in the larger study of the housing of the Saint-Lawrence Iroquoians, particularly on the Saint-Anicet region in Southern Quebec. This project will concentrate on the ethnogenesis of the sites of this zone and the relation between them. The technique used during this research consists in calculating the time since the last heating of the minerals contained in the clay used to make the ceramic pots. The utilisation of this dating method for the sites in the Saint-Anicet region is very relevant because it should limit the problems posed by the poor time resolution of radiocarbon dates for the late prehistory in the region. The results of this dating method will help provide a better chronological framework for the different archaeological sites of the region, thereby allowing for a more robust understanding of their chronological and ethnological relationships.

Landry, David B. (see Milne, S. Brooke)

Landry, David B. (University of Manitoba), S. Brooke Milne (University of Manitoba), Mostafa Fayek (University of Manitoba), Robert Park (University of Waterloo), and Douglas Stenton (Dept. of Culture and Heritage, Government of Nunavut)

3D LiDAR Scanning Technology and Its Application in Arctic Archaeological Research: A Test Case from Inland Southern Baffin Island, NU (Saturday, Circumpolar, 10:40-11:00am, Duke of Edinburgh)

In 2013, we used 3D LiDAR scanning technology to map in detail three expansive Palaeo-Eskimo sites located in the deep interior of Southern Baffin Island. The goal of using this technology was to create a detailed digital record of each site. From the acquired data, we are able to construct precise topographic surface maps and 360° dome scans of the varied features identified among each site location (e.g. tent rings, hearths, caches). We can also create interactive digital maps that can be posted online, which allows other academics, the general public, and local stakeholders to “visit” the sites firsthand. One of the key advantages of using LiDAR to achieve these objectives is that the instrument (i.e. Leica ScanStation C10) can capture high-resolution point-cloud data (i.e. x, y, z coordinates) of an entire site area in a matter of hours. When working in the Arctic, such efficiency is important because fieldwork is seasonally constrained and the logistical costs of working in the North continue to soar. This paper discusses the results of our 2013 site scans, the practical challenges we encountered using this technology in an Arctic archaeological context, and our plans to improve the field methodology used.

Lange, Hans (see LeMoine, Genevieve)

Langford, Dale (Lakehead University)

Interpreting the RLF Site: Implications for the Study of Small Scale Lithic Sites in Northwestern Ontario (Friday, Boreal, 10:40-11:00am, Prince of Wales)

Despite the fact that the RLF site (DdJf-13) contains no diagnostic artifacts or significant tool assemblages, it provides what many Late Palaeoindian sites of Northwestern Ontario cannot: a relatively unaltered and spatially interpretable distribution of

Lakehead Complex materials. Unassuming in nature, the RLF site is a small lithic reduction campsite located along the relict Lake Minong beach ridge. Through the application of intra-site spatial analysis, an image of Late Palaeoindian life space can be proposed. Using this case study we can begin to piece together how the first inhabitants of Northwestern Ontario functioned within their environment. Furthermore, this research helps to address issues regarding the study of these seemingly unimportant lithic sites, as their limited nature may provide the best opportunities through which the study of the people behind the artifacts may be accomplished.

Lausanne, Alex (Western University)

Scotland's Coastal Archaeology and the Problem of Erosion (Thursday, Old World I, 10:00-10:20am, Prince of Wales)

A wealth of history lies in the coastal archaeological sites across the world. Scotland, with the second longest in Europe, faces a major challenge of preserving coastal historic sites and salvaging archaeological knowledge before it is consumed by the sea through wave erosion. The government organization SCAPE (Scotland's Coastal Archaeology and the Problem of Erosion), with only three full-time staff, is responsible for the daunting task of monitoring 15,000 kilometers of coast.

The first step is getting the public to recognize the value of cultural heritage, so that community involvement can help to protect historic sites and quickly excavate archaeological sites most at risk. Through the Shorewatch project, a “citizen science” phone application, the public can help survey the coast and update Scotland's archaeology database, as well as identify which sites they deem most important and provide recommendations. So far, over 12,000 coastal sites have been identified, with 1,000 listed as high risk.

Instead of viewing these statistics negatively, SCAPE sees it as a way to engage local people with their past through community-focused rescue excavations. The Wemyss Caves site is an example of community disconnect with the significance of their local history. Youth would set fire to cars in the caves and shoot air guns at nationally important Pictish rock carvings. Through new interactive technology such as Reflective Transmission Imaging and 3D models, SCAPE conveyed the importance of the carvings and connected people with their local heritage.

Leatherdale, A. (University of Western Ontario)

Post-Mortem Structural and Chemical Changes to Bone Collagen and Bone Mineral (Thursday, Various Papers II, 11:40am-12:00pm, Duke of Edinburgh)

The structural and chemical integrity of archaeological bones and teeth is essential to a variety of analyses of these tissues, such as stable isotopic analyses, trace element analyses, genetic analyses, and radiocarbon dating. Alterations to the microscopic structure and chemical composition of the organic and inorganic phases of bones and teeth present challenges to molecular analyses in archaeology. The accurate reconstruction of paleodiet, mobility, and temporality using chemical techniques hinges on the preservation of archaeological remains within the post-depositional environment. There is a complex interrelationship between the preservation of the organic and inorganic phases of bones, which remains poorly understood. It is argued that the preservation of skeletal remains is function of their post-depositional environment, rather than time elapsed since deposition. A variety of taphonomic factors have been implicated in initiating and fostering post-mortem chemical changes to archaeological bones, including microbial activity, hydrolysis,

and molecular exchange between organic remains and surrounding soils. Environmental conditions, such as temperature and aridity, can further modulate the effects of other taphonomic variables. Therefore, it is necessary to consider the effects of these factors on the preservation of archaeological remains when using molecular analyses in archaeology.

Lemke, Ashely (see Sonnenburg, Lisa)

LeMoine, Genevieve (Bowdoin College), John Darwent (University of California, Davis), Christyann Darwent (University of California, Davis), and Hans Lange (Nunatta Katersugaarivvia Allagaateqarfialu, The Greenland National Museum and Archives)

Archaeology in Northwest Greenland and Beyond – It's about the Ice (Saturday, Circumpolar, 2:40-3:00pm, Duke of Edinburgh)

Ninety-eight years ago, George Comer was conducting excavations at the Thule trading station in North Star Bay, a site now known as Comer's midden, and other sites in the region, and Knud Rasmussen was in northern Greenland on the second Thule expedition, which included the first problem oriented archaeological research program in northwestern Greenland. Archaeological practice has changed a lot since then, and although in some cases we continue to pose similar questions, we face very different challenges. In this paper we look at how these challenges, in particular changing sea ice conditions, are impacting how, and where, research is being conducted, and what this means for the future of research in this remote and threatened region.

Lincoln, Derek (Bluestone Research, Inc.)

Water Manipulation: A Key to Power in Pre-Contact Honduras (Saturday, Various Papers III, 2:20-2:40pm, Duke of Connaught)

This paper examines the relationship between water and power in pre-contact Honduras using the archaeological site of Palmarejo as a case-study. Past excavations have suggested that the site of Palmarejo was politically dominant over various other sites in the region, these notions being supported by direct archaeological evidence. This paper proposes a potential explanation for this, hypothesizing that it was due to the manipulation of water supplies. The collection, storage, and subsequent controlled-distribution of water are shown herein to be viable methods of gaining political leverage through resource manipulation in pre-contact Honduras. In the case of Palmarejo, these water management theories are tested against evidence to determine whether or not such strategies could have been employed here, and thereby explain Palmarejo's political supremacy.

Specifically, soil cores were taken in several areas throughout the landscape, including a depression at Palmarejo, and were analysed according to characteristics demonstrative of subaqueous environments to determine whether or not Palmarejo practiced this method of water management. The soil analyses indicate that the residents of Palmarejo did in fact utilize this landscape feature for the collection and storage of water. Based on these findings and the relationship between water and power, this paper presents an argument that the village of Palmarejo was able to collect, store, and control the distribution of water and discusses the plausibility of attributing their political dominance to the successful manipulation of this resource.

Lobb, Murray (AMEC Environment & Infrastructure) and Amanda Dow (AMEC Environment and Infrastructure)

Clean-Up Archaeology: How Industrial Reclamation and Archaeology Can Be 21st Century Bedfellows, A Case Study of the Old Parr/Liten Mine, Northwest Territories (KePe-1) (Friday, Poster Session A, 9:00am-12:00pm, Foyer)

An archaeological survey of a historic gold mine northeast of Yellowknife, NWT was undertaken in 2009 as part of a federally funded reclamation process. This mine was used from 1947-1974 and it was time to clean up the abandoned site and remove any dangerous products left behind.

This project was part of a Phase II/III EIA assessment by AMEC Environment & Infrastructure. Before reclamation processes could be completed, an Archaeological Impact Assessment had to be conducted to record the historic remnants of the site, including mapping standing structures and collecting historic artifacts for the Northwest Territories Historic Mining Society. Traditional knowledge was sought from a Métis elder who advised about the small scale gold mining industry in the study area. From those interviews, many of the artifacts and the process of the mining operation was described and supported by ground-truthing structural evidence.

The Old Parr/Liten Mine is an example of how modern reclamation projects can be enhanced, safely conducted, and better understood with the use of traditional archaeological survey and traditional land use studies. Community involvement should be regarded as a valued resource. As more industrial sites age towards inclusion within provincial and territorial definitions of a cultural resource, it is important to appreciate how archaeology must work with other disciplines and regulatory processes.

Longstaffe, Fred J. (see Morris, Zoe H.)

Longstaffe, Fred J. (see Olsen, Karyn)

Longstaffe, Fred J. (see Spzak, Paul)

Lothrop, Jonathan C. (New York State Museum), James W. Bradley (Archlink), Meredith H. Younge (New York State Museum), and Susan Winchell-Sweeney (New York State Museum)

Paleoindian Occupations in Central New York (Saturday, Paleo-Indian, 11:40am-12:00pm, Suite 300)

In 1957 and 1965, William A. Ritchie reported on distributions of Paleoindian sites and points recorded for the New York region. Discrete clusters of sites and artifacts were apparent, with the greatest density occurring on the Ontario Lake Plain in central New York. Recent recording by NYSM staff of additional Paleoindian points and sites, conducted as part of the New York Paleoindian Database Project, reinforces this distribution for both fluted (circa 13-11,600 Cal BP) and parallel flaked or "Plano" (circa 11,600-10,000 Cal BP) Paleoindian points. This patterning is all the more striking given the fact that the Ontario Plain in central New York was last landscape to be exposed after draining of proglacial Lake Iroquois only a few centuries before human colonization. We present preliminary data on the distribution and chronology of Paleoindian points and sites for central New York, and offer preliminary interpretations of this patterning.

Lulewicz, Jacob (see Birch, Jennifer)

MacDonald, Patrick (Cassels Brock)

Contracting in Archaeology: The Importance of a Clear Contract (Saturday, Business, 2:40-3:00pm, West Ballroom)

We've all heard it before: make sure you have a written contract. While many consider it best practice to have a written contract in place before starting work, far too often we see disputes arising because parties entered into oral contracts or simply have poorly drafted agreements that do not reflect the requirements of the archaeological industry. This presentation will provide an overview of some of the legal fundamentals of contracts, consider some of the common problems and disputes that arise from oral agreements or poorly drafted contracts, and then highlight some of the issues that are unique to archaeology that should be considered in preparing a contract. We hope that you will leave this session with a better understanding of what you can do to help avoid disputes between an archaeologist and the land owner, as well as how to use your contract to anticipate and assist in resolving common disputes.

Macdonald, Sheila (University of Lethbridge)

Typological Analysis of Ceramics from Late Avonlea and Old Women's Phase Components on the North-west Plains (Thursday, Various Papers I, 10:40-11:00am, Prince of Wales)

Ceramic artifacts recovered from late Avonlea and Old Women's Phase components in Alberta, Saskatchewan, and Montana, with dates ranging from 1200-200 years ago, have been referred to as Ethridge ware (Kehoe 1959; Walde 2006), Saskatchewan Basin Complex: Late Variant (Byrne (1973), or simply as Old Women's Phase pottery. Despite the different names used to classify the ceramics, the vessels are typically recognised by their globular form, shouldered profiles, thick walls, vertical or flaring rims, and cord-roughened, fabric-impressed, or plain surfaces. The increasing number of ceramic artifacts being recovered from archaeological sites on the North-west Plains allows for a refined typological analysis of this broadly described pottery style. Ceramic attributes, including profile form, surface finish, decorative elements, and quantitative measurements were used to determine whether regional or temporal variations exist and to identify the unique elements that differentiate it from vessels from neighbouring regions. The results of this research provide a better understanding of the form and stylistic choices made by the potters of the Late Prehistoric Period on the North-west Plains.

Macdougall, Ruth (Fisher Archaeological Consulting)

The Mouse that Roared: iPads in a CRM Context (Friday, Modernization, 11:00-11:20am, West Ballroom)

In 2013, a large and complex Stage 4 site excavation was the impetus for Fisher Archaeological Consulting to introduce the use of iPads in a CRM context. This was a significant shift in practice for the luddites in command as well as for the crew. The process began before the field season as the advantages of iPads and tablets were debated, apps chosen, and a crash course in how to operate the devices was undertaken. The field project lasted six months, but after only a few weeks the iPads had proven their worth, particularly in the soggy spring and summer weather. Apps for drawing, keeping notes, filling in forms and spreadsheets among others were tested. Post-excavation, the iPads continue to be highly useful: contact with satellite offices and research (photographing archival material etc.) are but two examples. This paper presents the joys and frustrations of iPad technology and how its ability to track information is becoming a vital component in a CRM context – even for a small company.

Maika, Monica (University of Western Ontario)

Early Paleo-Indian Gravers: More than just Spurs (Thursday, Old Data, 2:40-3:00pm, Duke of Connaught)

Well-made gravers or spurred tools are one stone tool characteristic of the Paleo-Indian time period, but although many explanations have been posited as to their purpose (tattooing, hide piercing, engraving, etc), few typological or use-wear analyses have been conducted to date. A sample of gravers recovered from Early Paleo-Indian (11,000-10,400 B.P.) sites in southern Ontario is examined using graver morphology and low-power microscopic examination of use-wear damage. Guided by experiments using modern replicas, a typology of EPI gravers is evaluated, and a better understanding of their functions and roles in Paleo-Indian technology obtained. The current analysis is then compared to studies conducted by previous researchers in order to better comprehend graver form, production, and function. This study provides insights into these poorly understood tools and everyday Paleo-Indian actions, looking beyond the traditional focus on the age of sites and manufacturing procedures used to produce Paleo-Indian technologies.

Malleau, Kaitlyn (University of Western Ontario)

The Distribution of Broadpoint Archaic Sites in Ontario (Saturday, Poster Session B, 9:30am-12:00pm, Foyer)

Approximately 4000 years ago, a technology described by archaeologists as the broad point biface, diagnostic of the Broadpoint Archaic, appeared in Ontario's archaeological record. Most of the broad points that are found in Ontario can be classified as one of two types: Genesee or Adder Orchard. Fisher, who conducted a study on the assemblage of the Adder Orchard site in 1997, has proposed that the Adder Orchard point type may have come into Ontario from the west, while the Genesee point type is thought to have diffused in from the east. My objective is to use GIS to map as well as analyze the distribution of Genesee and Adder Orchard Broadpoint sites in Ontario. In this way, I hope to investigate whether Genesee points truly have a more easterly distribution and Adder Orchard points have a more westerly distribution.

Malleau, Kaitlyn (University of Western Ontario) and Alicia Hawkins (Laurentian University)

The Time and Place for Subsistence Procurement: A Comparison of the Faunal Material of the 16th and 17th Century Components of the Ellery Site (Thursday, Floral and Faunal, 3:40-4:00pm, Prince of Wales)

The Ellery site, a multicomponent Iroquoian village site in Simcoe County, has been the site of Laurentian University's Field Methods course in the field seasons of 2008, 2011, and 2013. It is an especially interesting site as one of its components is dated to be late pre-contact (16th century), while its second component is thought to be a contact-period (17th century) Wendat village site. Having these two components, Ellery offers the opportunity to study how the lifeways of the people living in the same environment might have changed in the context of the epidemic events of 1634-1640. In this study, the change in subsistence strategies between the two periods is considered, and the faunal material of each component is compared. It was discovered that in the 17th century, rabbits or hares, dog, perch, and the passenger pigeon became more important to the diet, while the fall spawning fish that was so important in the 16th century sample became less important.

Manchur, Michelle (see McKeand, Peggy)

Marcoux, Francis (see Denton, David)

Markham, Samantha (Lakehead University)

Projectile Points of Northwestern Ontario: Paleoindian Occupation at the Mackenzie 1 Site (Friday, Boreal, 11:20-11:40am, Prince of Wales)

Determining the timing and extent of the Paleoindian occupation within Northwestern Ontario has been hindered due to challenges facing archaeologists. These challenges include small artifact sample size recoveries and lack of preservation of archaeological evidence due to taphonomic processes associated with a Boreal Forest environment. The recent discoveries and ongoing analysis of the Mackenzie Sites near Thunder Bay, Ontario provide a chance to fill some of the gaps surrounding Paleoindian studies in this understudied region. While there are a number of archaeological sites and isolated Plano finds throughout the region, most of the excavated collections are from large-scale quarry workshops, and have yielded vast assemblages of lithic debitage with comparatively few diagnostic tools. In contrast, the Mackenzie 1 (DdJf-9) site appears to be an extensive and repeatedly used stream mouth habitation site exhibiting a range of stylistic influences that are represented in the projectile point assemblage. Contrary to conventional metric analysis, this projectile point analysis utilized an attribute based approach to typological analysis that would permit identification of significant patterned variation of the 380 projectile points recovered. The Mackenzie assemblage was then compared to other collections to determine the degree of variation in regional attribute consistency. The previously defined Lakehead Complex and Interlakes Composite are reconsidered here in the light of this large assemblage to determine the validity of these constructs in an effort to define Paleoindian occupation in Northwestern Ontario.

Martelle, Holly (Timmins Martelle Heritage Consultants Inc.)

Pots, Potters and Pottery Making at the Ball Site, a 17th century Wendat Village (Friday, Ball Site, 9:20-9:40am, Suite 300)

This paper provides an overview of the posts, potters and potting traditions at the Ball Site, a completely excavated 17th century Wendat village. The ceramic collection is one of the largest assemblages of contact period Wendat and/or Iroquoian pottery from Ontario and is unequalled for its large number of wholly or partially complete and reconstructable vessels. From this collection we get a much better picture of vessel form and function, decorative traditions and manufacturing techniques, as well as a better appreciation for the various functional, social and symbolic roles played by the kettle and other vessel types, in addition to how pottery production was integrated into other aspects of Wendat life. The examination of complete vessel forms gives the impression of a rather sophisticated ceramic industry where a small number of specialist potters was at work.

Martelle, Holly (Timmins Martelle Heritage Consultants Inc.)

"Shaken, not stirred!?" My Archaeological "Head-turners" and Other Stories... (Friday, Oral Trad., 2:20-2:40pm, Windsor)

Martelle, Holly (Timmins Martelle Heritage Consultants Inc.), Tomasz Porawski (Timmins Martelle Heritage Consultants Inc.), John Sweeney (Timmins Martelle Heritage Consultants Inc.), and Edward Eastaugh (University of Western Ontario)

Lessons Learned: Issues in and Methodological Approaches to the Use of Ground Penetrating Radar in Certain Southwestern Ontario Contexts (Thursday, Geophys, 11:20-11:40am, West Ballroom)

Since 2006, Timmins Martelle Heritage Consultants Inc. has been employing remote sensing techniques in a cultural resource management context. More recently, this has led to the development of a standardized set of practices for conducting ground penetrating radar (GPR) surveys in cemetery or potential cemetery settings. This paper provides an overview of our previous use of GPR, its successes and failures, some of the challenges that have been overcome and lessons learned. Our trials have led to what we believe is a better understanding of the value of GPR in archaeology, its applications and limitations.

Martelle, Holly (Timmins Martelle Heritage Consultants Inc.), John Sweeney (Timmins Martelle Heritage Consultants Inc.), and Tomasz Porawski (Timmins Martelle Heritage Consultants Inc.)

Who's Buried Where? A Case Study in the Effective Use of Ground Penetrating Radar in a 20th Century Cemetery (Thursday, Geophys, 1:40-2:00pm, West Ballroom)

In 2011, Timmins Martelle Heritage Consultants Inc. undertook a large scale ground penetrating radar (GPR) survey in the municipal cemetery in the City of Timmins. The purpose of the work was to better document the specific location of individual grave shafts to assist cemetery grounds crew in making better judgements about where to place new interments and to resolve outstanding legal issues. This paper demonstrates how GPR, when combined with multiple lines of cemetery information, can be used confidently as an analytical tool with real life applications.

Martelle, Holly (see Spence, Michael W.)

Martin, Kimberly (see Compton, Beth)

Mather, Katelyn (University of Western Ontario)

The Use of GIS to Discern Spatial Patterns of a Transitional Woodland Site (Friday, Poster Session A, 9:00am-12:00pm, Foyer)

A Transitional Woodland site, which is known as Silvercreek Location 9 (AeHf-58) located in Elgin County, Ontario, was subjected to Stage 4 excavation by Timmins Martelle Heritage Consultants Inc. The diagnostic artifacts collected from the site indicate an affiliation with Princess Point, while the settlement patterns at the site seem to align more closely with the patterns described for the Riviere aux Vase and Younge Phases of the Western Basin Tradition. My objective is to use GIS to analyze the pit features and spatial distribution of artifacts in order to test whether activity areas, settlement areas, or other occupational patterns can be observed. I plan to compare the spatial patterns observed at Silvercreek Location 9 to other Transitional Woodland sites, in order to examine if the site aligns more closely with Princess Point settlement patterns to the east, or Western Basin patterns to the west.

Mather, Katelyn (see Timmins, Peter)

Matheson, Carney (see Barry, Jacqueline)

Matheson, Carney (see Cook, Russell)

Matheson, Carney (see Kenel, Kait)

Matheson, Carney (see McEvoy, Chris)

Matheson, Carney (see Vickruck, Cory)

McAvoy, Deanna (University of Manitoba), Brooke Milne (University of Manitoba), Robert Park (University of Waterloo), and Douglas Stenton (Dept. of Culture and Heritage, Government of Nunavut)

The Missing Terrestrial Component: An Examination of Pre-Dorset Caribou Hunters from the Interior of Baffin Island, Nunavut (Saturday, Circumpolar, 9:20-9:40am, Duke of Edinburgh)

The seasonal subsistence practices of the Pre-Dorset peoples are commonly discussed in the context of the dual economy model. This model, based on ethnographic analogy of Inuit settlement and mobility, posits that Pre-Dorset groups spent the winter on the sea ice hunting seals at their breathing holes after which they traveled long distances to neighbouring inland areas in the spring where they fished for Arctic char, hunted migrating caribou, and exploited nesting waterfowl throughout the summer and early autumn before returning to the coast for the winter. Presently, archaeologists know more about the marine component of the Pre-Dorset seasonal round since research has historically focused on sites in coastal locations. However, few Pre-Dorset sites have extensively preserved faunal assemblages from either coastal or inland sites particularly in Low Arctic locations due to variable preservation conditions over time. Ongoing research in the deep interior of southern Baffin Island has identified four Pre-Dorset sites located on the northwest shore of Mingo Lake that date between 3600 – 3160 B.P. and display unparalleled levels of organic preservation compared to other similar sites from this region. This paper presents the results of an intensive analysis of 18,710 faunal bones recovered from these sites and discusses how elemental frequencies, fracture patterns, and degree of fragmentation provides important insight on the subsistence strategies of these earliest Arctic peoples. Moreover, the results make an important contribution to the poorly understood terrestrial component of the Pre-Dorset seasonal round.

McCulloch, Breana (Lakehead University)

Spatial Analysis in the Boreal Forest: A Paleoindian Case Study (Friday, Boreal, 9:40-10:00am, Prince of Wales)

Topographical and geographical constraints in northern Ontario have limited the available archaeological data from which meaningful interpretation of its earliest inhabitants can be made. The focal points of many past analyses have been functional and stylistic in nature; however recent development in northwestern Ontario has allowed the excavation of a series of sites that significantly increases the amount of archaeological material available for study. This increased sample size provides an opportunity to analyze aspects of regional culture beyond the culture historical focus through other avenues such as spatial analysis. This paper will explore the feasibility and limitations of a spatial analysis in the Boreal Forest using the Mackenzie I (DdJf-9) site as a case study. To date, only a limited number of small-scale spatial studies have been conducted in the region. Intra-site spatial patterning of lithic recoveries from Mackenzie I is examined to address any spatial organization that may be present. Research on this large site enables us to explore new

avenues and will enhance our understanding of the people who lived here.

McKenzie, Olivia (see Beaudoin, Matthew)

McKenzie, Olivia (see Cortese, Brittany)

McEvoy, Chris (Lakehead University) and Carney Matheson (Lakehead University)

Residue Analysis of Gun Shot Residue and the Archaeology of Explosives (Friday, Poster Session A, 9:00am-12:00pm, Foyer)

Firearms were an integral part of the fur trade, but no research has been devoted to applying routine forensic methods to search for and interpret the residue of traditional gunpowder on archaeologically recovered materials. Black Powder, a traditional mixture of Potassium Nitrate, Sulphur, and Charcoal, was utilized as a propellant in weapons prior to the advent of modern explosives in the 19th century. In order to detect traces of black powder, microscopic examination, including Scanning Electron Microscopy, were employed as a screening method to try and locate residue deposits while *in situ*. When detected, residue samples were then extracted by dry removal and sonication techniques, and then chemically characterized by biochemical spot-colour tests, and absorbance-spectrometry, as a colorimetric method to detect the presence of black powder. To confirm the results, Inductively Coupled Plasma Atomic Emission Spectroscopy, together with Fourier Transform Infrared Spectroscopy, were employed to examine the elements and compounds found within the obtained deposits.

McFadden-Baltutis, Lara (University of Toronto)

Feasting with Deer: Food for the Living, an Offering to the Dead. A Preliminary Analysis of Faunal Remains from an Ancient Coastal shísháhlh Burial Ground (Thursday, Floral and Faunal, 3:20-3:40pm, Prince of Wales)

On the south coast of British Columbia an ancient *shísháhlh* burial ground contains the remains of richly decorated individuals dated to 3500-4000 B.P. In addition to other grave offerings, burials contain stone and shell beads ranging in numbers from hundreds to hundreds of thousands. Associated with these highly decorated burials is a faunal assemblage characterized by a low frequency of marine fauna and a high proportion of deer bone, which is atypical of Northwest Coast shell midden deposits. Analyses of food preparation techniques, consumption patterns, and differences in body part representation and relative abundance of taxa, are used to assess the role of deer in mortuary activities. The results of this study are critical to better understanding the role of food in *shísháhlh* mortuary practices, and offer the opportunity to define human and animal interactions within a mortuary context, and provide insight into the development of material based inequality on the south coast of British Columbia.

McGlynn, George (see Olsen, Karyn)

McKeand, Peggy (Western Heritage), Terry Gibson (Western Heritage), and Michelle Manchur (Western Heritage)

Geophysical Survey and Archaeological Assessment of Northern Store Property in Waskaganish, Québec (Saturday, Poster Session B, 9:00am-12:00pm, Foyer)

The North West Company LP proposed the construction of a new store and duplex housing unit on their existing lot, Lot #654, in the community of Waskaganish, Québec on the southeast shore of James Bay. The history of Waskaganish (Little House) extends

back to 1610-1611 when Henry Hudson wintered here to trade with local Cree parties and the establishment of the first Hudson Bay Company in North America (Charles Fort, later known as Rupert House or Fort Rupert) in 1668. Knowing the potential historical conflicts that could arise from the development of the new store and housing duplex, the North West Company LP contracted Western Heritage to identify possible cultural remains using near surface geophysical methods (ground penetrating radar and magnetics) followed by the verification of a sample of the anomalies identified.

The combined magnetic and radar surveys identified 20 anomalies, primarily within the north half of the development footprint. The three anomalies that were tested with controlled excavations resulted in the discovery of cultural remains possibly dating back several centuries. Parts of the south half of the development footprint were assessed using ground penetrating radar. However, the low, rough, partially wet area that was once a beaver pond, could not be fully inspected using geophysical techniques. Areas that were inspected did not yield any significant anomalies. Recommendations were made to address the identified historical issues ranging from avoidance of the north part of the development footprint to full scale excavation of the identified geophysical anomalies.

McKeand, Peggy (see Gibson, Terry)

McNeill, Duncan (Geonics Limited), Jonathan Fowler (Saint Mary's University), Robert Ferguson (Parks Canada, retired), Rebecca Duggan (Parks Canada), and Sara Beanlands (Boreas Heritage Consulting Inc.).

Susceptibility Mapping with the Geonics EM38B Electromagnetic Magnetic Susceptibility/Conductivity Meter to Locate Early French and Acadian Building Sites in the Maritime Provinces (Thursday, Geophys, 9:20-9:40am, West Ballroom)

Many years ago Tabbagh (1986) suggested that short-spacing, dipole-dipole electromagnetic instrumentation such as the EM38B could be effectively used to rapidly map prospective archaeological sites. Such instruments have certain advantages over the more commonly used vertical-gradient magnetometers. For example gradiometers respond to local variations in the essentially uniform earth's magnetic field caused by variations in terrain magnetic susceptibility. Such an indirect measurement technique is relatively insensitive to variations in the thickness and susceptibility of an extended horizontal thin layer of susceptible material, a model that often applies to archaeologically interesting environments. Alternatively, dipole-dipole instruments such as the EM38B selectively energize only that part of the survey area whose susceptibility is to be measured, resulting in a highly resolved profile of the local spatial variations of the susceptibility.

This feature is illustrated in the many targets shown in several case-histories presented in this paper. Not surprisingly, anomalous susceptibility responses are shown to arise from mafic boulders used in foundations, soil disturbances such as in graves, the presence of ferrous objects and the corrosion by-products of ferrous objects. More surprising, however, are the large number of cases in which susceptibility anomalies are inferred to arise from physical burning of organic materials such as wood and soil, as suggested by Leborgne (1960), Tite and Mullins (1971) and Linford (2001), and which occur quite commonly in our survey areas.

Millaire, Jean- François (see Eastaugh, Edward)

Millaire, Jean-François (see Spzak, Paul)

Miller, André (GRAO Consultants en archéologie)

Multiple Archaeological Occupations of BJs-7 Site in Plaisance Park (Saturday, Various Papers III, 2:00-2:20pm, Duke of Connaught)

The purpose of this presentation is to review our actual knowledge of the periods of the Late Archaic and Early Woodland in the Ottawa Valley and particularly those recently acquired in Plaisance National Park. Recent archaeological excavations of BJs-7 site in Plaisance Park gave us more than 3,600 years of history of the occupation of this site. It is with the contribution of Laval University and archaeologists from GRAO Consultants, an occupation dating from the Early Woodland and Late Archaic have been discovered during the excavations of 2012 and 2013. Five (5) structures (features) occupying two parts of the site, Native pottery, Vinette 1 type, dating from the Early Woodland and diagnostic tools from that period shows the first sedentary indices of Native groups in Plaisance Park area. Tool production and lithic reduction shows all the subtlety and the use of raw materials from various areas of influence of this period. The presentation will focus on various significant and evocative elements of those layers unearthed in 2012 and 2013.

Milmore, Tatum (Université de Montréal)

Iroquoians and Crystal Quartz: A Study of Droulers/Tsiionhiakwatha (Friday, St. Lawrence, 2:40-3:00pm, Prince of Wales)

Among the large amount of artifacts found on Droulers/Tsiionhiakwatha Iroquoian village (BgFn-1), the assemblage of stone tools is very limited. The Iroquoians of Droulers produced scrapers, arrowheads, drills, buffers and grindstones, but they also shaped tools whose functions are not well defined. The 3637 lithic objects include 18 tools and 1085 pieces of debitage in crystal quartz, which compose over 61% of the total lithic assemblage. Crystal quartz was likely shaped during Québec prehistory, but never as much as on the Droulers site. This presentation detailed the chaîne opératoire of crystal quartz and its uses during the prehistory of Québec in general, and among the Iroquoians and the inhabitants of the Droulers site in particular.

Milne, S. Brooke (University of Manitoba), Mostafa Fayek (University of Manitoba), Robert W. Park (University of Waterloo), Douglas R. Stenton (Dept. of Culture and Heritage, Government of Nunavut), Rachel E. ten Bruggencate (University of Manitoba), and David Landry (University of Manitoba)

Chert Toolstone Availability in the Interior of Southern Baffin Island: New Insights From Two Recently Identified Source Locations (Thursday, Lithics, 10:00-10:20am, Duke of Edinburgh)

In 2013, we undertook a six-day geological and archaeological survey in the deep interior of Southern Baffin Island to locate outcrops of in situ chert toolstone and adjacent Palaeo-Eskimo sites where toolmakers may have exploited it. An important part of this work was to find a place known informally as "chert island," which is purportedly located along the southwest shores of Amadjuak Lake. The survey was extremely successful: (1) we found what we believe is chert island; (2) we found a massive toolstone acquisition site on the Hone River where in situ chert was easily extracted from an expansive limestone outcrop; and, (3) we gathered sufficient information to construct a geological model for the occurrence of chert toolstone in this region of southern Baffin Island. This paper describes the 2013 survey and

the two identified chert source locations. We then explain the important implications of these finds for our ongoing chert provenance research.

Milne, S. Brooke (see Beardsell, Robert J.)

Milne, S. Brooke (see Landry, David B.)

Milne, S. Brooke (see McAvoy, Deanna)

Milne, S. Brooke (see ten Bruggencate, Rachael)

Mock, Phillip (see Beaudoin, Matthew)

Mock, Phillip (see Cortese, Brittany)

Moloney, Michael (University of Calgary)

Spatial Approaches to the Analysis of Shipboard Societies – New Models for the 21st Century (Saturday, Spatial, 9:00-9:20am, Windsor)

The investigation of artifact distributions within shipwrecks has been a prominent aspect of maritime archaeological research since its very beginning. An understanding of the spatial orientation of material, and through which the organization of people, aboard a ship can have a profound impact on our understanding of shipboard societies. By and large these sorts of investigations have relied on the correlation of artifact assemblages, based largely on function and material type, and functional spaces aboard the ship. These methods of analysis are based on an assumption that the assemblages have not shifted in the wrecking process; a fact that we know to very often be untrue. How then is it possible to identify functional areas aboard a ship without these artifact assemblages? This paper will present the results of a computer based spatial analysis of ship structures themselves, in an effort to identify socially significant areas aboard the ship, without the use of artifact assemblages. The correlation of these results with excavation data from known shipwrecks will showcase the usefulness of this approach, in tandem with traditional methods of spatial analysis, and suggest an alternative, collective, method for examining shipwreck remains.

Monks, Gregory, G. (see Kenward, Tegan M.)

Moody, John F. (University of Western Ontario), Lisa Hodgetts (University of Western Ontario), and Linda Howie (University of Western Ontario; HD Analytical Solutions)

Revisiting Unfired Thule Inuit Ceramics (Saturday, Circumpolar, 2:00-2:20pm, Duke of Edinburgh)

While Thule Inuit pottery was generally fired at low temperatures, unfired or extremely low-fired sherds are occasionally recovered across the Canadian Arctic. These vessels contain a large proportion of inorganic and organic inclusions, especially hair and plant fiber, are thick-walled, and crudely formed. These characteristics seem to represent an extreme example of the significant role the environment played in structuring arctic ceramic technology. Arctic potters lacked suitable clay resources in many regions, fuel to fire pots was only available in areas with abundant driftwood, and short, cool summers hampered adequate drying. The historic record of ceramic manufacture in the arctic seems to corroborate this interpretation. Pots were often dried near fires rather than fired, and recipes included a variety of materials such as ash, hair, feather, blood, clay, sand and salmon liver. These additives may have obviated the need for direct firing.

Nevertheless, the variety of ingredients used suggests that more than simple environmental determinism was at play.

This paper presents the results of a detailed characterization study of ‘unfired’ Thule Inuit ceramics which combined morphological analysis, microscopic identification of organic constituents and thin-section petrography. The pottery included in the study derives from sites across the Canadian Arctic and represents a time period spanning the earliest Thule migrants to the late precontact. Patterns are examined within this vessel type and compared to a range of fired Thule Inuit pottery to better situate this variability within a broader context of ceramic technological practice.

Morris, Zoe H. (University of Western Ontario), Christine D. White (University of Western Ontario), Lisa M. Hodgetts (University of Western Ontario), and Fred J. Longstaffe (University of Western Ontario)

The Turkey and the Fox: Maize Field Hunting and Ritual in the Ontario Late Woodland Period (Saturday, Isotopes, 9:20-9:40am, West Ballroom)

We investigate the relationship between the intensification of maize cultivation and the opportunistic hunting of wild turkeys (n=44) and foxes (n=6) during the Late Woodland period (A.D. 1000-1650) in southwestern Ontario using stable carbon and nitrogen isotopes. The isotopic data indicate that these animals had access to C₄ foods (i.e., maize or maize-consuming herbivores) beginning in the Middle Ontario Iroquoian (MOI) period (A.D. 1200 to ~1450), a time that falls within the Medieval Warming Period. We argue that a longer growing season resulting from this climate change enabled MOI people to leave more maize waste in fields, a practice that attracted many animals. Turkeys and foxes were both consuming more maize during the MOI relative to previous and later periods but, curiously, Late Woodland faunal assemblages contain more foxes but fewer turkeys. Previous researchers have argued that the decrease in the number of turkeys arose from a conflict between fall hunting and the maize harvest, and consequently a de-emphasis on turkeys as food. We argue that MOI turkeys were *purposefully* fed surplus maize to support the MOI peak in ceremonial practices, which only required turkeys at predictable intervals. Harvested maize fields were converted into hunting grounds for turkeys, whose products (e.g. feathers) were used in ritual but who were not a primary food or clothing resource. Foxes probably also took advantage of this predictable food source, preying on maize-consuming herbivores, such as turkeys and squirrels, which were drawn to the fields.

Mortimer, Ben (Paterson Group)

The iPad as Archaeological Tool: The Development and Implementation of an iOS Field Recording System (Friday, Modernization, 11:20-11:40am, West Ballroom)

As much as paper forms increase the speed and ease of data recording over blank notebooks, digital field recording of archaeological survey and excavation can provide significant increases in the ease and speed of recording in the field. In 2003, Parks Canada’s archaeological programs in Ontario began a transition to digital field note recording. This began as a Palm Pilot-Microsoft Access based system, which was implemented on a trial basis for the 2003 field season. The system provided users prompts for information and limited some fields with drop-down lists or check box entries. Field notes were standardized, consistent, and much more information was recorded by all excavators. Furthermore, the time spent on finalizing, editing, collating, etc of field notes was drastically reduced. When

inexpensive Palm Pilots were discontinued circa 2007, there was no returning to paper. Luckily, in 2010 the first generation iPad was released, as was FileMaker Go, a mobile version of the database software FileMaker. While relatively expensive compared to paper and pencils, the versatility, reliability, adaptability, productivity, and general ease of use and management of iPad based recording makes it a valuable tool. This paper presents a review the genesis of the Parks Canada digital recording system, along with some difficulties encountered and their solutions. An overview of the FileMaker database, the field input and management of the system, and a review of practical considerations such as accessories and other useful apps is provided.

Munkittrick, T. Jessica (Memorial University)

Diet and Geographic Origins of British Royal Navy Sailors: Isotope Analysis of Skeletal Remains From the Southside Naval Hospital Cemetery, St. John's, Newfoundland (Friday, Poster Session A, 9:00am-12:00pm, Foyer)

The British Royal Navy protected the marine territory that connected the Empire's network of colonies during the eighteenth and nineteenth centuries, including the port of St. John's, Newfoundland. Many aspects of life in the British Royal Navy were strictly controlled and this included the diets of sailors. Historic research, does not always address how often an individual's diet deviated from Naval rations. Nor does it account for the variability in geographic origins of sailors, which may be influenced by high impressments rates. Isotopic analysis of bones and teeth provide a record of life history events, including average diet and geographic origins that can be missing from historical records. Here we will present carbon, nitrogen, strontium, and oxygen isotope data obtained from the remains of 21 sailors from a Naval Hospital cemetery located in St. John's (ca. 1725-1825). This project will address how the diets of these sailors compare to what was dictated by the British Royal Navy. Comparisons will also be made to studies conducted at other British Royal Navy hospitals and Newfoundland civilian cemeteries. This study will provide unique insights into the global variability of diet and the unaddressed question of geographic origins of sailors within the British Royal Navy during the eighteenth and nineteenth centuries.

Murchie, Tyler (University of Calgary)

Understanding the Applicability of Ancient DNA Analysis for Woody Materials Recovered from Alpine Ice Patches in the Southern Yukon (Thursday, Floral and Faunal, 2:00-2:20pm, Prince of Wales)

Alpine ice patches in the southern Yukon have proven to be valuable sources of well-preserved organic materials. Numerous dart and arrow shafts with attached sinew and feathers have been recovered from these sites, as have over 1700 faunal remains, a moccasin, and more than 200 other archaeological objects. The discovery of these archaeological sites has already contributed significantly to our cultural-historical interpretations of this relatively poorly understood region of the subarctic. Unmodified branches and twigs have also been recovered from these remote locations. It remains unclear at this time why these materials constitute a part of the archaeological assemblages given their spatial distance from the modern tree line. This paper details the work to date of an ongoing master's thesis project to investigate the potential for ancient DNA extractions from these unmodified woody materials—a problematic material type because of PCR inhibitors and a lack of viable nuclei and plastids in many wood cells. In conjunction, the modern genetic variability of these tree species has also been investigated in a preliminary assessment to

understand the feasibility of determining the geographic origin of wood remains from these sites. Beyond the sources of these unmodified items, the project is also intended to illuminate the potential state of taphonomic decay for dart and arrow shafts recovered from similar alpine ice patches in the region that may also be amenable to paleogenetic analyses.

Murchie, Tyler (University of Calgary)

A Preliminary Assessment of the Potential for Contamination in Blood Protein Residue Analysis on Experimental Lithic Tools Using Crossover Immunoelectrophoresis (Friday, Poster Session A, 9:00am-12:00pm, Foyer)

The degree to which contamination can impact protein residue analysis has not been directly addressed in the past. Most of the debate regarding the validity of the method in archaeology (immunological techniques in particular) have centered on the question of biomolecular taphonomy—the ability to actually recover authentic ancient proteins. While contamination is a factor in cross-reactions and non-specific binding, the potential for inter-tool cross-contamination and indirect contamination from modern protein sources is largely unknown. The goal of this pilot project was to assess the contamination potential of the crossover immunoelectrophoresis technique (CIEP). This was attempted using experimental stone tools, which were subjected to mild, short term archaeological conditions. Despite processing known-use tools three times, 83% of the lithics produced negative results and only a single tool had a clear positive reaction. The contaminant potential of CIEP could not be addressed, but the results do give insights into the conditions that either facilitate or hinder protein survival on lithic tools. The presence of water during burial and an insufficient pre-burial time for desiccation are hypothesized as primary explanations for the negative results. A further investigation is intended that will use these results as a guide for developing a more refined research design to assess both contamination potential and protein adherence in a variety of burial settings.

Nau, Erich (see Kucera, Matthias)

Nau, Erich (Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology), Lars Gustavsen (Norsk institutt for kulturminneforskning), Christer Tønning (Vestfold fylkeskommune), Roland Filzwieser (Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology), Manuel Gabler (Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology), Immo Trinks (Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology), Wolfgang Neubauer (Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology), and Alois Hinterleitner (Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology)

Large-Scale High-Resolution GPR Prospection in the Viking Age Landscapes of Southern Norway (Thursday, Geophysics, 10:40-11:00am; West Ballroom)

The development of motorized high-resolution GPR devices and corresponding processing and visualization tools is one of the main tasks within the 2010 in Vienna established Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology. Various case study areas have been selected in central and northern Europe in order to test and deploy the developed systems in different landscapes comprising various geological and archaeological settings.

One of the case studies is situated in Vestfold County in southern Norway, an area best known for its exceptional Viking Age sites, such as the renowned 9th Century ship-burials at Gokstad and Oseberg, the trading and harbour site of Kaupang, as well as royal burial site at Borre National Park. In geological terms the area is dominated on a small-scale by glacial and marine erosional and depositional processes dating to the last glacial period, therefore displaying a rather challenging and variable geological setting for the application of near-surface geophysical prospection methods for archaeological objectives.

Within several fieldwork campaigns over the past four years different motorized GPR survey systems (Sensors & Software SPIDAR array, MALÅ Imaging Radar Array) have been deployed and tested. Rather stable snow conditions in Northern Europe allowed the extension of the survey periods into wintertime and the use of multichannel GPR arrays towed by a snowmobile. In the vicinity of already known outstanding archaeological sites the survey areas have been extended onto the scale of the surrounding landscapes. Up to date an overall area of more than three square kilometres could be surveyed with unprecedented high resolution. In this paper we present the novel technology and methodology as well as latest archaeological discoveries, such as a newly mapped Viking Age harbour and trading site at Gokstad and impressive Viking Age hall-buildings found at Borre.

Nehlich, Olaf (see Guiry, Eric J.)

Neubauer, Wolfgang (see Kucera, Matthias)

Neubauer, Wolfgang (see Nau, Erich)

Neilson, Scott (Memorial University)

The Land Created by Cain (Friday, Heritage, 9:20-9:40am, Windsor)

The modern socio-political framework and the long-term cultural history of the Quebec-Labrador peninsula are complex. In this environment, tasks such as the identification of archaeology site boundaries, the assessment of site significance, and the classification of archaeological resources can have unintended political, social, and historical consequences. The goal of this presentation is to point-out some of the unplanned consequences of Labrador Archaeology, in the hope of spurring future conversations on the subject of heritage legislation and policy within Labrador, and across the Quebec-Labrador peninsula.

Nicholas, Michael A. (see Suttie, Brent D.)

Nicholas, Michael A. (Archaeological Services, Heritage Branch, Tourism, Heritage and Culture, Province of New Brunswick) and Brent D. Suttie (Archaeological Services, Heritage Branch, Tourism, Heritage and Culture, Province of New Brunswick)

Integrating Historical Sources/Data with a GIS to Enhance the Management of Cultural Resources (Friday, Modernization, 9:20-9:40am, West Ballroom)

In New Brunswick, the provincial regulatory unit Archaeological Services uses a predictive model to frame archaeological impact assessments within the jurisdiction. This model identifies areas of predicted and known resources as an aid to developers and researchers. Recently, Archaeological Services has supplemented the archaeological predictive model with the inclusion of a series of datasets derived from historical sources. Here we describe these sources and present a case study on how they have been

integrated into New Brunswick's Archaeological Predictive Model and where we intend to expand the datasets in the future.

Noël, Stéphane (see Guiry, Eric J.)

Norris, Dave (University of Western Ontario)

Paleo-Indian Activity in Northern Ontario: New Insights and Changing Paradigms (Saturday, Paleo-Indian, 9:20-9:40am, Suite 300)

Recent work in northern Ontario has led to the discovery of several Paleo-Indian sites, one of which, the Mackenzie I site, has yielded a vast amount of stone tools and diagnostic artifacts unlike anything that has been seen before in northern Ontario. This site as well as the other sites located along a relic Glacial Lake beach will offer up substantial information regarding the colonization of the north. To be able to place this new information into context, an examination of all previous Paleo-Indian studies in the north must be undertaken. The first to investigate Paleo-Indian presence in northern Ontario was done by Richard "Scotty" MacNeish in the 1950s. These investigations began the discussion regarding the presence of Paleo-Indians in northern Ontario. Building upon this work and other sites found in the north, William Fox in the 1970s and 1980s developed the Lakehead Complex to characterize the first peoples. A decade later, William Ross, in a regional survey developed the Interlakes Composite to categorize the Paleo-Indian presence based on geographic distribution. These concepts at the time worked with little information and few excavated sites, but they did initiate a discussion. Since the mid-1990s little work has been complete in northern Ontario with regards to the presence of Paleo-Indian studies. The discovery of the Mackenzie I site, as well as the other sites, will inevitably change and refine these older concepts giving way to perhaps a clearer picture as to how the north was colonized.

Olivia, Yasmin (Sir Sandford Fleming College)

Exploring Glacial Shorelines in the Peterborough Area Using GIS (Friday, Poster Session A, 9:00am-12:00pm, Foyer)

Glacial events were a major factor in the creation of Canada's physical geography. It created eskers, lakes and rivers and stripped and relocated soil. The Peterborough area is an example of a modern landscape where glacial events created a diverse terrain. As the glaciers retreated land collapsed, rebounded and many lakes were formed. The purpose of this investigation is to determine if glacial Lake Jackson and Lake Peterborough are identifiable using GIS methods such as statistical surface modeling. Modern and historic data will be combined to create the best fit model for what the landscape was approximately 12,000 to 10,000 years ago during the creation of the Oak Ridges Moraine and the advance of the Lake Simcoe lobe.

Olivia, Yasmin (see von Bitter, Robert)

Olsen, Karyn (University of Western Ontario), Christine D. White (University of Western Ontario), Fred J. Longstaffe (University of Western Ontario), Kristin von Heyking (Ludwig-Maximilians-University), George McGlynn (State Collection for Anthropology and Palaeoanatomy, Munich, Germany), and Gisela Grupe (Ludwig-Maximilians-University; State Collection for Anthropology and Palaeoanatomy, Munich, Germany)

Investigating Local Food Economies in Late Medieval Regensburg, Germany (Saturday, Isotopes, 10:00-10:20am, West Ballroom)

We investigate the carbon- ($\delta^{13}\text{C}$) and nitrogen- ($\delta^{15}\text{N}$) isotope compositions of faunal remains ($n = 23$) recovered during the excavation of a medieval (12th - 16th century) city site (Regensburg, Germany) using both collagen and structural carbonate analyses. Species include domesticated birds (chicken, goose) and mammals (cow, pig, sheep/goat), game resources (hare, partridge), and one cat. The sample derives from a cemetery associated with a poorhouse (an early form of social care facility) that would have sheltered destitute individuals within the community, and although it provides some insight into the kinds of food resources available to this low status group, the sample is not large enough to accurately define a human food web. Thus, previously published faunal and human data from other medieval German sites will be used here to contextualize this small dataset within a larger regional and social perspective. As expected, low $\delta^{13}\text{C}$ values indicate that C_4 plants did not contribute much to animal (or human) diet in this area. A wide range in animal $\delta^{15}\text{N}$ values reflect the various protein resources consumed at different positions on the food chain, as well as likely variations in feeding practices, or a variable impact of manuring on the $\delta^{15}\text{N}$ values of feed crops. Large differences in the nitrogen-isotope compositions of cows may also reflect their diverse origins. These isotopic data are combined with historical textual data to explore the economic and social implications of the food types represented by the faunal material in this context.

O'Shea, John (see Sonnenburg, Lisa)

Orchard, Trevor J. (Lakehead University, Orilia) and Paul Spzak (University of British Columbia)

Zooarchaeological and Isotopic Insights into Locally Variable and Temporally Dynamic Economic Patterns: A Case Study from Late Holocene Southern Haida Gwaii, British Columbia (Saturday, Isotopes, 11:40am-12:00pm, West Ballroom)

Economic trends and resource use patterns have long been placed at the root of major social and cultural developments among global societies. Among First Nations societies along the Northwest Coast (NWC) of North America, for example, intensive use of seasonally abundant, storable resources, such as salmon, herring and various shellfish, has been argued to form the basis for the rise of more complex, sedentary societies. Traditional zooarchaeological analyses reveal coarse aspects of faunal use trends across space and time, and as such studies have accumulated on the NWC increasing regional variability has become evident. Identifying the degree of local variability, however, is complicated by the limits of traditional zooarchaeological analysis. On the NWC, key resources, such as salmon and rockfish, can only be morphologically identified to broad, generic taxonomic levels. We have employed the analysis of stable carbon and nitrogen isotopes to gain a more high-resolution understanding of variable use of these and other resources, successfully identifying the use of locally variable sub-populations of diverse taxa. The integration of traditional zooarchaeological and isotopic data can provide a much more

nuanced understanding of regional and temporal trends in human economic behavior. This is exemplified in our ongoing research in southern Haida Gwaii, which points to a distinct pattern of local and temporal variability in the use of a wide range of faunal taxa.

Park, Robert (see Landry, David B.)

Park, Robert (see McAvoy, Deanna)

Park, Robert W. (see Milne, S. Brooke)

Park, Robert W. (see ten Bruggencate, Rachel)

Parker, Alyssa (Millennia Research Limited) and Morley Eldridge (Millennia Research Limited)

Archaeology in the Third and Fourth Dimensions: A Case Study of 3D Data Collection and Analysis from Prince Rupert, BC, Canada (Friday, Modernization, 10:40-11:00am, West Ballroom)

During a large excavation project on the Northwest Coast of America in Prince Rupert, BC, Canada, a very large (over 140,000 data points) set of 3-dimensional data points was collected. Data collection used a Total Station for 3D provenience of all materials, supplemented with tablet computers for attribute data collection, and linking the attribute and spatial data with barcodes. This 3D dataset was augmented by photography of features for conversion to 3D models using SFM (structure from motion) software, as well as 3D scanned models of artifacts. These models have been georeferenced and visualized with the surrounding point cloud data, which is symbolized by a variety of different collected attributes. This visualization has allowed detection of patterns that were not apparent in the field, and which may have gone unnoticed if standard excavation and recording methods had been used. The 3D point cloud and 3D models allow an unprecedented view of the archaeology of this region, ranging from the micro (individual artifact) to macro (multiple "sites") scale. The ability to select from a range of types of archaeological data that can be viewed simultaneously is also unprecedented. This paper will discuss the methods used to collect, store, and analyse this data, with a focus on different methods of 3D visualization and data sharing using web-based applications.

Passmore, David G. (University of Toronto - Mississauga), David Capps-Tunwell (Lieu Dit Le Point Du Jour), and Stephan Harrison (University of Exeter)

WW2 Conflict Archaeology in the Forests of NW Europe (Thursday, Hist Arch, 9:20-9:40am, Windsor)

This paper will explore the emerging potential of forests and woodlands for preserving the conflict archaeology of WW2 in NW Europe. In contrast to the extant and well-documented concrete fortifications associated with coastal defence (the Atlantic Wall) and the western border of Germany (the West Wall), the visible landscape evidence of 1944-45 battlefields and military activity beyond these static defence lines has rarely survived post-war urban, industrial and agricultural development. However, wooded areas that have escaped intensive post-war management may still preserve extensive landscapes of contemporary field fortifications, earthworks and shell- and bomb-craters. Examples of such landscapes will be illustrated here with the results of field survey of combat and logistics-related activity in forested areas of NW Europe, including Canadian battlefields in Normandy and in the Reichswald and Hochwald forests of the Rhineland. It will be argued that (i) by the standards of WW2 archaeology in the NW European theatre these woodland landscapes have permitted an exceptional state of

preservation for non-hardened military facilities and combat-related damage, and (ii) that the combination of field survey and analysis of archive material may offer a uniquely detailed insight into contemporary battlefields and military logistics operations. Attention is also drawn, however, to heritage management concerns and it is concluded that there is an urgent need to fully establish the scale and character of this archaeological resource before it is degraded or permanently lost.

Paul, Julilla (see Peuramaki-Brown, Meaghan)

Pendea, Florin (see Denton, David)

Peuramaki-Brown, Meaghan (McMaster University; University of Calgary), Julilla Paul (McMaster University), Thomas Blennerhassett (McMaster University), Michelle Huminicki (Brandon University), Bryan Hill (Brandon University), and Mark D. Berry (Brandon University)

The Archaeometry of Greater Nicoya Pigments: Cross-disciplinary and Multi-institutional Analyses of Pre-Columbian Ceramic Economies (Friday, Poster Session A, 9:00am-12:00pm, Foyer)

This research represents a preliminary, cross-disciplinary and multi-institutional project that aims to document and investigate technological changes in pre-Columbian pigments on pottery from the Greater Nicoya area of Nicaragua. The study focuses on a small sample of ceramic sherds recovered from contexts dating to the Late Bagaces (ca. 500-800 AD) and Sapoa (ca. 800-1250 AD) periods. Scanning Electron Microscopy (SEM), Atomic Absorption Spectroscopy (AAS), and simple solution ("wet") chemistry methods are applied to address questions concerning pigment identification, source, and technology, providing a range of qualitative and quantitative data. These analyses will lend insight into larger questions surrounding ethnohistorically documented migrations into the area from Central Mexico, the organization of ceramic economies, and the practicalities of applying such techniques in archaeology. An additional goal is to provide data concerning the efficacy of these techniques, their feasibility in an archaeological investigation, and a subjective decision concerning their practicality for use in other countries with less developed/under-funded academic institutions or in the field context.

Perreault, Christine (Université de Montréal)

Conservatism and Innovation in the Decoration of Iroquoian Pottery at the Droulers-Tsiionhiakwatha Site (Friday, St. Lawrence, 2:20-2:40pm, Prince of Wales)

Characteristic of the St. Lawrence Iroquoian tradition, the pottery found at the late 15th century Droulers site displays conservative and progressive traits. The morphological and stylistic analysis of the pottery sherds, and particularly of those decorated with the dentate stamp technique, indicate that this earlier decor is common on this site and is often combined with decors that appear late in the Iroquoian sequence. Taking into account the combination of these decors and the relative popularity of dentate stamping on the pottery at the Droulers site and the Maisouna region sites, it is considered that this decorative technique is less likely a valuable variable for the chronological ordering of sites and is more likely a local and regional stylistic trait, indicating extended social ties between the families of this site and between the Saint-Anicet and Maisouna regions.

Pihl, Robert (Archaeological Services Inc.) and Andrew Riddle (Archaeological Services Inc.)

Contributions of Renewable Energy Approval Projects to Pre-Contact Aboriginal Site Survey in Chatham-Kent Region, Southwestern Ontario (Friday, Green Energy, 9:40-10:00am, Duke of Connaught)

Renewable energy approval (REA) projects have created an unprecedented opportunity for consulting archaeologists to survey large swaths of land in Ontario that have previously received relatively little attention from researchers or developers. For the last four years, ASI has been undertaking survey and excavation work in advance of two wind energy projects in the Chatham-Kent region of southwestern Ontario. Until recently, archaeological surveys in this area have been limited in scope, and this project represents a unique opportunity to expand our understanding of pre-contact Aboriginal land-use patterns. More than eighty sites were identified, most along drainages in proximity to Lake Erie, with various components dating from the Late Paleo-Indian to Late Woodland periods. In this paper, we summarize our findings in relation to existing literature for southwestern Ontario, with particular attention to site potential modeling. In addition, we highlight the unintentional advantages and limitations of wind project design for archaeological survey and sampling.

Pihl, Robert (see Wojtowicz, Robert)

Piskor, Ashley (University of Waterloo)

Global Lessons in Collaborative Archaeology: Perspectives from New Zealand and Sub-Saharan Africa (Friday, Community, 1:40-2:00pm, Suite 300)

Archaeology's origin as a Western scholarly discipline effectively excluded Indigenous groups from its process, further marginalizing groups already affected by colonialism and preventing them from governing their own cultural heritage. More recently, archaeologists have been attempting to achieve a more ethically responsible archaeological practice by involving relevant communities and incorporating alternative perspectives. In order to achieve this goal, archaeologists worldwide are engaging with community, descendant, and Indigenous groups in collaborative archaeological projects. Collaborative archaeology aims to share agency in creating and maintaining cultural identities with descendant and local communities. Starting with the assumption that each collaborative project is uniquely shaped by its particular social, cultural, economic, political, and historical contexts, this paper will explore collaborative archaeological projects in a global context, drawing upon the socio-cultural, economic, political, and historical influencing factors in order to understand similarities and differences. It will focus on and compare archaeological projects in New Zealand and Sub-Saharan Africa that can highlight the processes, successes, and failures of collaborative efforts. These comparisons may provide insights that could be useful in Canada and elsewhere.

Plint, Tessa (The University of Western Ontario), Lisa Hodgetts (The University of Western Ontario), and Henry Cary (St. Mary's University)

Zooarchaeological Investigations at Sheep Creek: a Thule caribou kill-site in Ivvavik National Park (Friday, Poster Session A, 9:00am-12:00pm, Foyer)

This study presents an analysis of the faunal remains recovered from the Sheep Creek Site, Ivvavik National Park, Yukon Territory. The site is located within the Firth River Valley, which

is an important migration corridor for the Porcupine Caribou Herd. Radiocarbon dates from the site span the period from approximately 1300 to 1800 calibrated years AD, suggesting multiple episodes of occupation during the Thule Inuit period. The approximately 1,000 faunal specimens collected revealed an intensive focus on caribou (*Rangifer tarandus*) exploitation at the site. The abundance of caribou skeletal parts was weakly negatively correlated with Metcalfe and Jones' (1988) Food Utility Index (FUI). The correlation was weaker than might be expected, perhaps because of a high degree of post-depositional damage to the bones. Nonetheless, low frequencies of "meaty" parts such as upper hind limbs and ribs suggest that Sheep Creek functioned as a kill site from which these elements were removed for further processing, storage, or consumption elsewhere.

Plourde, Michel (see Treyvaud, Geneviève)

Porawski, Tomasz (see Martelle, Holly)

Potter, Joanna (see Howie, Linda)

Poulton, Dana R. (D.R. Poulton and Associates) and Chris Ellis (University of Ontario)

The Gosling Site (AiHb-189): A Small, Parkhill Phase, Fluted Point, Paleo-indian Site in Guelph, Ontario (Saturday, Paleo-Indian, 11:20-11:40am, Suite 300)

An analysis of the information recovered during the 1996 CRM fieldwork at the Early Paleo-Indian (fluted point-related) Gosling site is presented. Located within the city of Guelph, Ontario, the site is a single component one assignable to the Parkhill Phase based on the recovery of a Barnes type fluted point. The assemblage from the site is very small, including only 24 artifacts, most of which (N= 15) consist of flaking debris, recovered over an area of ca. 70 m². The majority of the assemblage is from controlled surface collection as it was not recognized as a Paleoindian site until, in stripping the ploughzone in an attempt to find feature remnants, the fluted point was recovered. Nonetheless, the site is of considerable significance as it expands our currently highly biased knowledge of the Parkhill Phase in terms of site locational preferences, tool inventories and lithic raw material source selections. In addition, as an object lesson, the site highlights a number of characteristics of Paleoindian sites, known almost exclusively to specialists in that field, which need to become better known in the CRM community. These characteristics should assist in recognizing such sites in the future in cases where the diagnostic points are not recovered.

Poulton, Dana R. (see Spence, Michael W.)

Pradzynski, Aleksandra (see Wojtowicz, Robert)

Prévost, Marie-Annick (University of Toronto)

Analysis of Late Archaic Plant Remains from the Québec City Area (Thursday, Floral and Faunal, 2:20-2:40pm, Prince of Wales)

Radiocarbon dates indicate that the Québec City area was frequently occupied by groups of hunters-gatherers during the Late Archaic period. The archaeological site of côte Rouge (CeEt-481) located in Lévis on the south side of the St. Lawrence River was one of these favored locales. The identification of charred seeds and nuts from contexts dating of 3,600 to 3,300 BP at this site revealed the consumption of fat rich foods like black walnuts and hazelnuts, and of many vitamin packed berries. The presence of these plant resources may have encouraged the late archaic populations to come back to this locale. In turn, prolonged human

disturbance could have been beneficial to humans by maintaining the vegetation in the early productive stages of the ecological succession, favoring the growth of useful plants. Many botanical macro-remains from the côte Rouge assemblages are indeed plants thriving in open and disturbed habitats. However, these results contrast with the wood charcoal data from the same contexts that revealed mostly trees characteristic of shady climax forests like beech, maple, hemlock, and yellow birch. These results seem to suggest that disturbance was limited and that prolonged seasonal stays did not limit the access to quality firewood resources. This paper will present in more detail the spatial and temporal distribution of macro-botanical and wood charcoal remains recovered at the côte Rouge site. Preliminary results indicating the possible presence of resin and starch on stone tools will also be discussed.

Prowse, Shari (see von Bitter, Robert)

Prowse, Shari (Ministry of Tourism, Culture and Sport)

The Ministry of Tourism, Culture and Sport and the Renewable Energy Approval Process: Successes and Challenges (Friday, Green Energy, 9:00-9:20am, Duke of Connaught)

The Green Energy Act was passed by the province of Ontario in May 2009. It replaced the land use planning framework (e.g., Planning Act, Environmental Assessment Act) with the Renewable Energy Approval (REA) process for infrastructure projects related to 'green' energy (e.g., wind and solar) generation and transmission. Although led by the Ministry of the Environment, the ministry of Tourism, Culture and Sport (MTCS) has played an active role in the REA process to ensure the conservation and protection of Ontario's archaeological resources. This paper will outline MTCS' role in the REA process, how the ministry's role has evolved over the last four years, the challenges associated with its role, both present and future, and its successes in relation to Ontario's archaeological heritage.

Prowse, Tracey (see Bishop, Katherine)

Racher, Paul (Archaeological Research Associates Ltd.)

It's a Ball World After All (Friday, Ball Site, 11:40am-12:00pm, Suite 300)

An overview of the Ball Site Field School in terms of its contributions to our understanding of Ontario archaeology, education, and the lore of our profession.

Racher, Paul (Archaeological Research Associates Ltd.)

The Nature of Archaeological Inquiry in Ontario (Friday, Oral Trad., 4:40-5:00pm, Windsor)

Ramsden, Peter (McMaster University)

Home Thoughts from Abroad (Thursday, Central ON, 9:40-10:00am, Duke of Connaught)

I have always tried to impress on students the value of doing research in more than one archaeological region, and of having first-hand experience with ways of life that are more closely tied to the landscape than those of the typical academic. While I still firmly believe that those things are valuable, I realize I have never actually demonstrated that. I will try to do so in this presentation, with reference to my own experiences in archaeology. I may or may not succeed. I hope to use examples from my research in

Ontario (Archaic and Iroquoian), the Arctic (Paleoeskimo and Thule) and southeast Ireland (Mesolithic and Neolithic).

Ramsden, Peter (McMaster University)

The People Who Live in the Past (Friday, Oral Trad., 2:40-3:00pm, Windsor)

Rankin, Lisa (Memorial University)

How I Stopped Worrying About the Ontario Ministry of Transportation and Learned to Love the Subarctic (Friday, Oral Trad., 4:20-4:40pm, Windsor)

Raynor, John (Ontario Archaeological Society, Huronia Chapter)

For Profit or Passion? (Thursday, Central ON, 11:40am-12:00pm, Duke of Connaught)

This paper will examine the role of the avocational archaeologist over time in Ontario with a particular focus on the archaeology of Huronia. In a landscape where most of the archaeology in Ontario today is carried out by CRM companies under contract to the private sector and by a few universities that can still squeeze out the funds to do research and fieldwork, what is the role and motivation of the avocationalist? In this paper we will examine the history of archaeology in Huronia and the rich record left behind by pioneers in a field well before there were any monetary rewards or many accolades to be had. Who were they, what did they do and perhaps more importantly, why did they do it?

We will examine where we are today. When about 10% of the archaeological licences issued in Ontario are for avocational archaeologists, some with little formal academic training or credentials, where can their interest and enthusiasm be best used? As the regulations governing archaeology tighten up and the bureaucracy stiffens, is it still an environment that can attract those driven by passion rather than profit to do what the love to do, or are the costs and liabilities becoming so high that they will either not enter the field or crawl back into the dirt pile and become the pot hunters of the past?

Reibl, Breanne N. (see Beaudoin, Matthew)

Reibl, Breanne N. (see Cortese, Brittany)

Renouf, M. A. P. (see Hodgetts, Lisa)

Renouf, M. A. P. (see Wells, Patricia)

Reynaga, Diana K. Moreiras (Western University)

Aztec Diets and Mobility: A Stable Isotope Study (C, N, and O) of Human Sacrificial Offerings at Tlatelolco and the Templo Mayor of Tenochtitlan (Friday, Poster Session A, 9:00am-12:00pm, Foyer)

In this poster I introduce my doctoral research project at Western University in which I will use stable isotope analysis (C, N, and O) to study human remains from the Aztec capital city of Tenochtitlan (Mexico City) and adjacent archaeological sites dating to the Postclassic period (A.D. 1200-1519). The collections include adult and child sacrificial offerings from the Templo Mayor and Tlatelolco's Templo R, as well as non-sacrificial burials from nearby communities. This research project attempts to expand our understanding of food consumption and mobility patterns among the Aztec, while also contributing to our general understanding of other aspects of Aztec society such as religious,

socio-economic, and geopolitical dynamics. Questions such as the following frame this project: Who was chosen for sacrifice to a specific deity? How did the priests in charge of conducting these rites select future sacrificial victims? How were these religious practices tied to Aztec imperialism? In this poster I outline the main research objectives and overarching anthropological questions as well as various hypotheses I plan to test along with a series of possible interpretations based on preliminary predictions about how the isotope data results may look like prior to conducting this study.

Reynolds, Robert G. (see Sonnenburg, Lisa)

Ribot, Isabelle (see Hardy, Marie-Hélène)

Ribot, Isabelle (see Toupin, Rémi)

Richards, Michael P. (see Guiry, Eric J.)

Riddle, Andrew (see Fox, Amy)

Riddle, Andrew (see Pihl, Robert)

Riddle, Andrew (see Wojtowicz, Robert)

Ronning-Sammet, Amanda (see Willows, Erin)

Roywitka, Robin (see Bereziuk, Darryl)

Sacks, Ben (see Brown, Sarah K.)

Saint-Germain, Claire (see Gates St-Pierre, Christian)

Savelle, James (see Szpak, Paul)

Sawatzky, Roland (Manitoba Museum)

Egalitarian Ideology and Material Culture in a Mennonite Context (Thursday, Hist Arch, 3:20-3:40pm, Windsor)

Mennonites arrived in Manitoba from south Imperial Russia (now Ukraine) in the 1870s seeking religious freedom and new economic opportunities. They settled in "street-villages", choosing to live in close quarters rather than spread apart on the unfamiliar prairie landscape. Four excavation seasons at the abandoned Mennonite village of Blumenhof, MB (established 1875) conducted between 2008 and 2012 have concentrated on two households known to have been inhabited by two families of very different means. Archaeological investigations revealed a subtle difference between ceramics, construction methods and building size. While Mennonite society was ostensibly egalitarian in its religious ideology, and members were pressured to conform to a rigid set of material culture standards, wealthier individuals and families were nevertheless able to showcase their status through various accepted forms.

Saxberg, Nancy (AMEC Environment & Infrastructure)

Recent Archaeological Investigations at Fort Augustus/Edmonton House (Thursday, Hist Arch, 3:40-4:00pm, Windsor)

In 2012, AMEC conducted archaeological excavations on the Rosedale site (FjPi-63), the historical location of the second and fourth phases of NWCo. Fort Augustus and HBCo. Edmonton House. Situated in the North Saskatchewan River Valley near downtown Edmonton, Rosedale has been home to various municipal and industrial developments for over a century. This more recent land use has resulted in extensive disturbance to significant archaeological deposits, although explorations on the

site since the 1980s have shown that intact vestiges occasionally occur. Consistent management of these historical resources over the past 15 years has resulted in a better understanding of the patterning of the nineteenth-century occupation. The 2012 excavations and construction monitoring in 2013 and early 2014 were located in an area that had been protected from development since the mid-1950s, revealing structural evidence of at least one of the phases of fur trade occupation, dating to the early nineteenth century. This paper is a presentation of the results of these recent investigations and a discussion of the results within the context of contemporary historical records and previous archaeological investigations on the site.

Schweitzer, Margaret (Lakehead University)

In the Middle of Nowhere: The Discovery of DbJm-34, Billings Bridge (Friday, Boreal, 9:20-9:40am, Prince of Wales)

The boreal forest of northwestern Ontario holds many archaeological secrets, and exploring “the bush” has led to the unexpected and exciting discovery of a new Paleo-Indian site near Thunder Bay. While much archaeological excavation in Canada results from activities surrounding economic development, pure research accounts for only a minor portion of the total work done. DbJm-34 was discovered during my thesis fieldwork in 2013. Employing a strategy of picking the study site area out of a hat may have caused more headaches than Eureka moments initially, yet accepting these challenges culminated in the unearthing of in situ artifacts. This presentation describes the process of locating the site, as well as the subsequent questions that were raised regarding the first peoples to the Lakehead Region. Evidence uncovered suggests that remnants of glacial ice were not a deterrent to the earliest travelers to the area. More work in similar environments in the north may reveal new insight into this prehistorically important part of the province.

Schumacher, Jennifer (McMaster University)

Brushing off the Dust, Re-evaluating Extant Collections: The Van Besien Site (Thursday, Old Data, 3:40-4:00pm, Duke of Connaught)

The future of archaeology does not only lie in further excavation but also in revisiting past research and excavations using emerging methodological techniques and theory. With increasing funding restraints, the re-evaluation of extant collections is becoming more attractive and feasible. Using the approaches of technological style and consumption I demonstrate how utilizing extant collections can shed new light on academic debates and the pragmatic issues concerning their use. I demonstrate this with a case study of an Ontario Early Late Woodland site, Van Besien. Since potting is a social event involving transmission of knowledge, production exists within social constraints specific to each potter and influences the technological choices he/she makes. Such technological choices culminate in what is regarded as technological style, created by the repetition of activities or choices that create discernible patterns. These patterns allow for identification of styles that demarcate social boundaries. Due to these new approaches, levels of heterogeneity unprecedented in Ontario during the Ontario Early Late Woodland were discovered as well as unexpected social divisions within a village. This study represents a successful re-evaluation of an extant collection and how with new approaches new interpretations can be discerned.

Seibert, Jeffrey (Trent University Archaeological Research Centre)

Towards a Formal Spatial Analysis of 17th-19th Century Military Architecture in Ontario (Saturday, Spatial, 9:20-9:40am, Windsor)

The study of military architecture from the perspective of historical archaeology and history has a long and distinguished past in Ontario, and indeed in North America as a whole. Much of this work, however, has focused on the use of archaeological materials and historical documents to attempt to better understand and flesh out the histories of these sites and does not engage in broader social archaeological questions or topics, such as analyses of spatial patterning or the use of space in these buildings and complexes and the insights regarding social phenomena that these analyses can yield. This paper seeks to examine patterns and changes in the use of space in a number of military sites/complexes from this time period through the use of space syntax analysis in order to better understand how these sites operated as dynamic spatial environments. By tracking changes over time through looking at evolving spatial configurations in their historical and archaeological contexts, these complexes are viewed as dynamic spatial and architectural entities. These entities reflect aspects of the social organization of the respective military organizations that constructed them and broader social norms.

Sherratt, Jim (Ministry of Tourism, Culture and Sport)

Striking the Right Balance: A Ministry Perspective on the Licensed Archaeologist and Archaeological Consulting (Saturday, Business, 1:40-2:00pm, West Ballroom)

In 2014, archaeological consulting activities represented more than 95% of the archaeology completed within the province of Ontario. The challenge for the consultant archaeologist is to balance the wide range of competing demands while meeting their obligations to the province as a licensed archaeologist. As the regulatory body for licensed archaeologists, the Ministry of Tourism, Culture and Sport has a central role in how that balance is defined to achieve the goals of the provincial interest in archaeology as set out in the *Ontario Heritage Act*. This paper will provide a ministry perspective on striking the right balance by putting the “archaeology” back into archaeological consulting.

Sherret, Kayley E. (see Beaudoin, Matthew)

Sherret, Kayley E. (see Cortese, Brittany)

Shkrum, Michael J. (London Health Sciences Centre; Schulich School of Medicine and Dentistry, Western University)

Forensic Anthropology: The Southwestern Ontario Experience (Saturday, Michael Spence, 3:40-4:00pm, Prince of Wales)

In Ontario, the Coroners Act mandates medico-legal investigations of certain deaths: sudden unexpected due to disease (natural); accidents; suicides; homicides, and undetermined when the circumstances are unclear. A coroner is assisted in his/her determination of these manners of death by a pathologist who performs an autopsy. In addition under the Act, “A coroner may at any time during an investigation direct any person, other than the pathologist to whom the warrant (for postmortem) is issued, to conduct examinations and analyses that the coroner considers appropriate in the circumstances.” When skeletal remains are discovered, a forensic anthropologist working with the forensic pathologist can answer various questions posed by the coroner’s

investigation. Are the remains human? Are they historic or recent? Are there findings identifying the individual? Is there evidence of disease? Is there trauma related to a cause of death? The direction of the investigation and its conclusion will hinge on the answers.

Dr. Michael Spence has served the coroner's death investigation system in southwestern Ontario for over thirty years. This presentation will provide a brief chronicle of some cases in which Dr. Spence's expertise has assisted police, forensic pathologists and coroners in their examinations and investigations.

Singer, Zachary (University of Connecticut) and Brian Jones (University of Connecticut)

Documenting Variability Among a Geographic Cluster of Paleoindian Sites on the Mashantucket Pequot Reservation in Southeastern Connecticut (Saturday, Paleo-Indian, 11:00-11:20am, Suite 300)

Over the past thirty years, multiple Paleoindian occupations have been documented near the Great Cedar Swamp on the Mashantucket Pequot Reservation in southeastern Connecticut. Examination of isolated Paleoindian lithics and two thoroughly excavated Paleoindian sites, Hidden Creek and Ohomowauke, highlights Paleoindian site variability on the local landscape. Although Hidden Creek and Ohomowauke are separated by only ~750 meters and share approximate elevations, distance to fresh running water, and proximity to the wetland, these sites differ markedly in size, soil matrix, intrasite patterning, and density of lithic concentrations. A comparison of Paleoindian sites and isolated Paleoindian lithics from the Mashantucket Pequot Reservation provides insight into the diversity of terminal Pleistocene land-use and has important implications for methods utilized for locating and documenting small Paleoindian sites in the Northeast.

Sleath, John (see Wojtowicz, Robert)

Smith, Colin (see Guiry, Eric J.)

Smith, David G. (University of Toronto, Mississauga)

The Keffer Site 26 Years Later (Saturday, Michael Spence, 1:40-2:00pm, Prince of Wales)

The Keffer site is a pre-contact ancestral Wendat village located in the Don River drainage system of south-central Ontario, dating to the latter half of the 15th century AD. Mitigative excavations in 1985 and 1988 recovered a complete site plan and 10s of thousands of artifacts, including fragments of roughly 6,000 pottery vessels. Mike Spence undertook the investigations of the human remains recovered from the excavations. This paper will summarize what is currently known and inferred about the Keffer site. Preliminary reports on the ceramic artifacts, faunal remains and botanical remains have been published, but the settlement pattern data from the site have not been published. A detailed site plan will be presented and village organization will be discussed.

Somers, Lewis (Archaeophysics LLC; Geoscan Research USA)

Archaeological Interpretation and Testing Based on Multi-Method Geophysical Survey (Thursday, Geophys, 2:00-2:20pm, West Ballroom)

This Conference and a recent magnetic and soil resistance survey at Mission Santa Ines in CA provides an opportunity to recite the detailed archaeological interpretation of the geophysical features

found in the surveys. Linear filters, statistical filters, careful quantitative analysis and combined data from both survey methods are used. Based on feature formation concepts (materials and processes) in a California Spanish Mission context, many of the geophysical features are plausibly identified as architecture, activity areas and archaeological features. This is done for localized features (First Nations) and activities areas (domestic) as well as landscape scale (Mission industry) features. The paper demonstrates the cost effectiveness of multiple method surveys when combined with feature formation based analysis. Beyond excavation and traditional coring, the potential for a minimally invasive testing protocol based on visible and near infrared soil spectroscopy obtained by insertion of a reflectance probe is suggested.

Sonnenburg, Lisa (University of Michigan), John O'Shea (University of Michigan), Ashely Lemke (University of Michigan), and Robert G. Reynolds (Wayne State University)

A Nested Search Strategy for Locating Submerged Late Paleoindian-Early Archaic Caribou Hunting Structures on the Alpena-Amberley Ridge in Lake Huron (Saturday, Paleo-Indian, 10:40-11:00am, Suite 300)

Submerged landscapes have recently been recognized as an important aspect of the archaeological record. While the archaeological potential of submerged landscape in the Great Lakes as loci for Paleoindian and Archaic sites has long been acknowledged, the ability of researchers to actually locate ephemeral sites in these environments has been problematic. In Lake Huron, we have created a nested research strategy to reconstruct the paleoenvironment and locate prehistoric archaeological sites. We have integrated a series of techniques, including geophysical survey, ethnographic research, remotely operated vehicles, computer simulation, multi-proxy paleoenvironmental analyses, and SCUBA trained archaeologists. Our approach employs methods that can be easily deployed from a medium sized research vessel (8.5 m length) with a small crew (4-6).

Most recently, our strategy allowed us to locate our most complex site to date, Drop45, which was located using sector scanning sonar. The general survey area was narrowed using a combination of previous topographic mapping using side-scan sonar, computer simulation, which identified potential 'choke points' for caribou migration, and sediment and microfossil analysis which indicated a preserved landscape environment that was conducive to caribou hunting. After locating this site, we were able to perform a systematic survey using divers to recover archaeological materials as well as accurately map the structures. Based on our previous success, future surveys intend to better integrate our geophysical and paleoenvironmental data into the computer simulation, where we will be able to create real-time predictive models that can direct our search activities on site.

Spearing, Whitney (see Grieve, Johnathan)

Spence, Michael W. (Western University), Janet Gardner (Timmins Martelle Heritage Consultants Inc.), Holly Martelle (Timmins Martelle Heritage Consultants Inc.), and Amanda DiLoreto (Timmins Martelle Heritage Consultants Inc.)

An Analysis of Two Hanged Men from the Elgin County Judicial Complex, St. Thomas Ontario (Saturday, Michael Spence, 4:00-4:20pm, Prince of Wales)

In the summer and fall of 2010 archaeological work was undertaken on the grounds of the Elgin County Judicial Complex by Timmins Martelle Heritage Consultants Inc. Among other

objectives, one was to locate and exhume the remains the two executed prisoners from the late 19th century, William Welter and John Hendershott, who were known to be buried within the jail yard of the complex. Upon discovery of the grave site the remains were exhumed and analyzed with the goals of the analysis being those of a standard legal autopsy: identification of the individuals, determination of their cause and manner of death, and estimation of the postmortem interval (time elapsed between death and discovery). In the case of a historic burial post-mortem interval is well-established by records but identification and cause/manner of death were of particular concern. Findings were recorded during the analysis of the remains that potentially provide insight into the criminal case of Hendershott and Welter and that add to our understanding of judicial hangings.

This paper presents the results of the analysis and additional information documented during the exhumation and archaeological investigation of the judicial complex.

Spence, Michael W. (Western University), Dana R. Poulton (D.R. Poulton and Associates), and Christine F. Dodd (D.R. Poulton and Associates)

Life and Death in Nineteenth Century Ingersoll, Ontario: the Sacred Heart Cemetery (Saturday, Michael Spence, 4:20-4:40pm, Prince of Wales)

In January 2008 human remains were discovered during trenching for a sewer in a proposed townhouse development in Ingersoll, Ontario. The site proved to be a Roman Catholic cemetery that was in use from circa 1847 to 1879. The subsequent salvage excavations of the 0.3-hectare property confirmed the presence of 159 unmarked graves, with 170 individuals. The analyses of the remains determined that the causes of death included one case of a judicial hanging and another of repeated and ultimately fatal spousal abuse. The cemetery was never officially opened. Nor was it ever officially closed. This paper focuses on the successes and failures of the project, including the difficulties in interpreting a nineteenth century cemetery in the absence of detailed contemporary records on the burials.

Spence, Michael W. (see Wheeler, Sandra M.)

St. John, Amy (Western University)

The Use of Micro Computed Tomography in the Analysis of Archaeological Ceramics (Saturday, Virtual, 9:20-9:40am, Prince of Wales)

The use of micro computed tomography (CT) analysis in archaeological applications is a new and burgeoning field which has the potential to transform the way in which we conduct ceramic analysis in archaeology. This innovative technology, available at the Sustainable Archaeology research facility at The University of Western Ontario, provides high magnification digital X-ray 3D images of the interior and exterior of archaeological artifacts through stacking of a large number of non-destructive "slices" made by CT scans. Preliminary studies in micro-CT ceramic analysis have been undertaken, but no currently published research has examined more than ten ceramic sherds. Micro-CT has the potential to illuminate two major aspects of pottery making practice. Formation techniques can be examined through the alignment of voids and inclusions in the fabric and choices of clay and temper can be studied through 3D petrography. Outside of ceramic studies, micro-CT technologies are beginning to be more widely used in archaeology, particularly in bioarchaeological applications. Other materials sciences fields have also begun applying micro-CT technologies, notably in meteorite studies, cultural heritage and museum studies. The aim

of my research is to explore the transformative opportunities micro-CT scanning provides for ceramics in archaeology, establish the methodological protocol and assess the promise of analytical processes available through CT scanning, and advance novel interpretive findings on the craft and industry, tradition and innovation, of ceramic making through time through the case study of southern Ontario.

Staniforth, Mark (see Guiry, Eric J.)

Stapelfeldt, Kora (see Woolsey, Cora)

Stapelfeldt, Kora (Archaeological Services Inc.)

The Power of Knowledge Translation in Heritage: Providing Agency through Dissemination (Friday, Heritage, 10:40-11:00am, Windsor)

Cultural Resource Management as an industry has come under national scrutiny in the media during the past year as the public question the need and value of our practice in their backyards. Cases of CRM involvement such as MacKay and her six year battle for land development in Victoria, British Columbia and Suave and Campbell's discovery of aboriginal human remains in their backyard in Point Edward here in Ontario and their subsequent media commentary have showcased serious questions the public have concerning heritage legislation. As licensed archaeologists we should strive to address these concerns through continued education and public involvement. There are many questions we need to ask ourselves in the process. Can/should we act as mediators in these situations? What is the best way we can use knowledge translation to disseminate information to the public? The elements of our education that drive our passion for the past should be used to effectively engage the public and provide agency and accountability to landowners and stakeholders. By better understanding our role in this effort and increasing legislative transparency where possible, we can understand this issue and work together to provide solutions where needed.

Stenton, Douglas (see Landry, David B.)

Stenton, Douglas (see McAvoy, Deanna)

Stenton, Douglas R. (see Milne, S. Brooke)

Stenton, Douglas, R. (see ten Bruggencate, Rachel)

Stevenson, Talena (University of Toronto)

Challenging Traditional Gender Roles in Iroquoian Material Culture Production; A.K.A. Just Because Some Dude Didn't Think Being in the Kitchen Was Manly Doesn't Mean No Dude Ever Made a Pot (Thursday, Old Data, 4:00-4:20pm, Duke of Connaught)

This paper addresses the outdated assumption that basketry and pottery fall solely within the domain of women's work with regards to Iroquoian groups in the Eastern Woodlands. The assumption that women were primarily responsible for basket fabrication was challenged using a chaîne opératoire methodological approach, which was used to deconstruct and interpret the production process of Iroquoian baskets as a highly fluid and engendered activity. This approach highlighted the important role that both men and women played in the production process and revealed an increase in male participation as society evolved from a household to a market based economy. These results did not conform to the traditional definitive categories of men's work, and also revealed patterns in basket form and style

that were highly gender specific. This innovative new research may provide a possible interpretive tool for pre-contact Iroquoian pottery assemblages that exhibit similar patterning under similar circumstances. For example, it may prove useful in interpreting patterns found in pottery styles during the coalescence period in pre-contact Ontario. There has been much speculation that pottery cannot be attributed solely to the domain of women with regards to Iroquoian groups, and this idea has long been under scrutiny without a concrete way to examine material evidence that would suggest otherwise. This study of Iroquoian basketry may provide a way to challenge this outdated assumption as well as question the notion that any activity can be confidently labeled as belonging specifically and solely to one gender category.

Stewart, Frances L. (Stewart Faunal Analysis)

Ball Site Faunal Artifacts (Friday, Ball Site, 11:00-11:20am, Suite 300)

The faunal artifacts at the large Ball site are surprisingly few. Reasons are suggested for the specific animals and the particular elements that were selected as raw material to make these artifacts. Most of the artifact types are common on Iroquoian sites but a few, highly decorated fleshers are not. Finally, the paucity of faunal artifacts on the Ball site is addressed.

Stewart, Sally (see Hawkins, Alicia)

Striker, Sarah (Arizona State University), Linda Howie (The University of Western Ontario; HD Analytical Solutions), and Ron Williamson (Archaeological Services, Inc.)

Intrusive by Substance, Context or Practice? The Materiality of Processes of Community Coalescence at the Mantle Site (Friday, Technology, 4:00-4:20pm, Duke of Edinburgh)

The Mantle site is a sixteenth century Ancestral Wendat settlement on the north shore of Lake Ontario. This large, well-planned village is the culmination of a period of coalescence, which saw the integration of several smaller communities into this single cohesive settlement. Excavations unearthed a near-complete village plan, and more than 150,000 artifacts and 95 structures. A detailed petrographic study of the technological and provenance characteristics of pottery deriving from different architectural contexts indicated that a large proportion of vessels analysed were not made from raw material resources located in the immediate vicinity of the site, suggesting they were brought to Mantle from elsewhere. Significantly, this non-local pottery includes both regular-sized and juvenile vessels, which are interpreted conventionally as the products of young potters learning the craft. The petrographic study also revealed that juvenile vessels were highly variable compositionally, often having unique pastes that were not observed in regular-sized vessels.

This paper presents the results of the latest phase in our examination of the nature of variability in ceramic technical practice at the Mantle site by integrating the petrographic data on origin of manufacture and patterns of technical practice as reflected in resource selection and choice of paste ingredients. We use data from a detailed macroscopic and low magnification study of variability in technical practice relating to choice, methods and manner of decorative embellishment. The results of this comparative study of inter-relationship among domains of technological choice illustrate how processes of community coalescence and integration manifest in the material record.

Surette, Clarence (see Vickruck, Cory)

Surette, Flannery (University of Western Ontario)

Cutting Selvedges and Fraying the Borders between Cultures on the North Coast of Peru (Thursday, Old Data, 4:20-4:40pm, Duke of Connaught)

On the north coast of Peru during the Early Intermediate Period (200 BC-800AD), Moche and Virú settlements have largely been identified on the basis of corporate styles and complex seriated ceramic sequences. Despite the emphasis placed on the artistry of the region's textiles traditions, this data, unlike that of ceramics, has been rarely aggregated with the most aesthetically appealing examples often treated as unique finds or art objects. Furthermore, this paper shifts perspective, from the southern Moche state to one of its supposed conquests, the people of Virú, by drawing on two textile assemblages from the sites of Huaca Santa Clara and Huaca Gallinazo in the Virú Valley. With the inclusion of Moche textiles, this project reveals an underlying tradition of textile technology shared by the peoples of the north coast regardless of corporate style, reflecting other underlying similarities in domestic ceramics, site plans, architecture, settlement patterns, and burial practices. This shared north coast tradition of material culture complicates one of the basic tenets of Andean textile scholarship—that clothing and textiles are excellent markers of ethnic identity—while throwing into question what chronologies reliant on fancy ceramics really mean.

Suttie, Brent D. (see Hamilton, Anne C.)

Suttie, Brent D. (see Nicholas, Michael A.)

Suttie, Brent D. (Archaeological Services, Heritage Branch, Tourism, Heritage and Culture, Province of New Brunswick) and Michael A. Nicholas (Archaeological Services, Heritage Branch, Tourism, Heritage and Culture, Province of New Brunswick)

The Archaeological Predictive Model as a Planning Tool in New Brunswick: (2009 – Present) (Friday, Modernization, 9:00-9:20am, West Ballroom)

Since 2009, Archaeological Services - New Brunswick's archaeological regulatory body - has employed a GIS-based Archaeological Predictive Model as a planning tool for developers and to scope Archaeological Impact Assessments in the province. This planning tool was developed based on a series of statistical probabilities derived from an analysis of known sites. The existing site data were augmented with information derived from targeted field testing projects throughout New Brunswick. The end result of the implementation of this planning tool has resulted in 29% of the Pre-Contact sites found since 2009 being located in areas not previously assessed during Archaeological Impact Assessments. Here we present the planning tool, discuss its implementation and some of the successes, as well as issues and limitations encountered in this approach.

Suttie, Brent D. (Archaeological Services, Heritage Branch, Tourism, Heritage and Culture, Province of New Brunswick) and Grant R. Aylesworth (Squareforks Consulting Inc.)

Using Photogrammetry, Stack Processing and Laser Tomography to Enhance Field Recording, Laboratory Analysis and Artifact Interpretation (Saturday, Virtual, 9:40-10:00am, Prince of Wales)

New technologies are often viewed with considerable skepticism as passing fads or meaningless eye-candy. Developments in the field of photographic and laser-based capturing of 3D data have brought these abilities within the reach of all researchers. Here we

present actual applications of these technologies in field surveys, excavations, laboratory analysis and enhanced artifact interpretation by the authors on research projects in Canada and Belize. We argue that rather than a passing fad - some of these technologies should be ubiquitous for all researchers given the pronounced benefits of low-cost data collection which can be accurately recreated in 3D for future interpretation and presentation.

Sweeney, John (see Martelle, Holly)

Szpak, Paul (University of British Columbia), Christyann Darwent (University of California, Davis), Lisa Hodggets (University of Western Ontario), James Savelle (McGill University), and James Woollett (Université Laval)

Historical Ecology of the Maritime Arctic: An Isotopic Investigation (Saturday, Circumpolar, 3:20-3:40pm, Duke of Edinburgh)

The Arctic is a region that is particularly sensitive to climate change, but predicting impacts on marine ecosystems is challenging because we lack sufficient comparative historical baselines. This project uses stable isotope analysis of marine mammals from archaeological sites in the Arctic to document regional and temporal ecological variation in hopes of developing such baselines. Moreover, these data have the potential to contribute to a more detailed environmental background with which to interpret human subsistence and settlement patterns in the region. This paper introduces the short and long-term goals of the project, the methodologies employed, and presents preliminary results.

Szpak, Paul (University of British Columbia), Jean-François Millaire (University of Western Ontario), Christine D. White (University of Western Ontario), and Fred J. Longstaffe (University of Western Ontario)

Human-Camelid Relationships in Northern Peru (Saturday, Isotopes, 11:20-11:40am, West Ballroom)

This paper presents carbon and nitrogen isotopic data from South American camelid (llama and alpaca) tissues (bone collagen and hair) and wool textiles from several archaeological sites in northern Peru spanning the Early Horizon to Late Intermediate Periods (c. 800 BC to AD 1476). Camelids from low altitude/coastal sites are characterized by distinct isotopic compositions relative to camelids from inland/high altitude sites. The variation in coastal camelid isotopic compositions cannot be explained by high altitude plant isotopic compositions, suggesting that these animals were herded locally on the coast. The large isotopic variation in the coastal camelids suggests a small-scale and diversified pattern of animal husbandry in this region, which contrasts to the larger-scale herding characteristic of modern and historic high altitude environments. Textiles recovered from coastal contexts present isotopic compositions that are consistent with distinct production strategies for materials according to spinning and weaving tradition, revealing a much more complicated pattern than was previously realized.

Szpak, Paul (see Orchard, Trevor J.)

ten Bruggencate, Rachel (University of Manitoba), M. Fayek (University of Manitoba), S.B. Milne (University of Manitoba), and K. Brownlee (The Manitoba Museum)

Sourcing Quartz: A Case Study from Northern Manitoba (Thursday, Lithics, 9:00-9:20am, Duke of Edinburgh)

Visual and geochemical analyses of 30 formal quartz tools from the Churchill River basin of northern Manitoba were used to provisionally attribute source provenance based on comparison to previously characterized quartz quarries. Results of this comparison suggest quartz from these sources was manufactured into tools that were transported and eventually deposited into archaeological sites up to 200 km away. Curation of quartz tools over this distance indicates that hunter-gatherer populations in the Churchill River basin of northern Manitoba were highly mobile. It also suggests that raw materials of comparable quality may not have been available in the intervening area.

ten Bruggencate, Rachel (University of Manitoba), S.B. Milne (University of Manitoba), M. Fayek (University of Manitoba), R.W. Park (University of Waterloo), and D.R. Stenton (Dept. of Culture and Heritage, Government of Nunavut)

Characterizing Chert from Southern Baffin Island: Bulk vs. Microbeam Mass Spectrometry (Thursday, Lithics, 10:40-11:00am, Duke of Edinburgh)

Micro-analytical techniques combine low detection limits with limited sample destruction, making them an attractive option for archaeological raw material provenance studies. However, the utility of these techniques for reliably characterizing chemically heterogeneous raw materials, like chert, should be considered prior to their application. Chert source and artifact samples from southern Baffin Island were subjected to solution-based ICP-MS and Secondary Ion Mass spectrometry (SIMS) analysis to determine whether comparable chemical data could be obtained through bulk and microbeam analysis, respectively. SIMS and ICP-MS data from the same samples do not correlate because SIMS trace element data show greater overall variability. Therefore, an earlier characterization technique for these materials based on SIMS and ICP-MS data has been refined based on new ICP-MS trace element data from source material and artifacts.

ten Bruggencate, Rachel (see Milne, S. Brooke)

Testa, Taylor (see Wolff, Christopher B.)

Thomas, Candie (University of Western Ontario)

Community-Based Archaeology in the Mnweni Valley, South Africa (Friday, Community, 3:40-4:00pm, Suite 300)

In the upper Mnweni valley, South Africa, a community-based approach to archaeological ethnographic research of ceramic production, use, meaning and change was conducted over six consecutive field seasons from 2007 to 2012. The study involved qualitative interviews and participatory research with community members. Every effort was made to engage in research on local terms that would be beneficial and respectful of local intellectual property and diverse agendas. This is the first time that the Mnweni community of approximately 5,000 Zulu-speaking people was exposed to collaborative anthropological/archaeological research with a non-Indigenous outsider. This paper will discuss the benefits, challenges and ethical considerations of conducting community-based archaeology in rural South Africa.

Thomas, Jessica (see Kenward, Tegan M.)

Thomas, Joanne (Six Nations Lands and Resources Office) and Rose Miller (Six Nations Lands and Resources Office)

An Indigenous View of Archaeology in Southern Ontario (Saturday, Business, 3:40-4:00pm, West Ballroom)

We, as Indigenous people, view archaeology as a responsibility to ensure the respect for those who came before us, in relation to their spirit and way of life. We anticipate the hard work that lies ahead of us in moving forward in the archaeology world and in trying to educate archaeologists about the different sovereign nations and customs that still exist today. We were known as the Onondageho: no meaning "People of the Hills" or Gayogoho: no meaning "People of the Pipe" which refer to the areas that we once lived in. Each Indigenous group of people have their own names. We don't assume to speak on behalf of all Indigenous people, but can only speak about our experiences. The experiences we have encountered working with CRM archaeologists have assisted us in the development of how we wish our past to be viewed. Due to these experiences, we have become familiar with archaeology and we will continue to try to adjust the archaeological interpretation of the past to the way of life of the Ones Who Came Before Us.

Timmins, Peter (Western University; Timmins Martelle Heritage Consultants Inc.), Matthew Beaudoin (Timmins Martelle Heritage Consultants Inc.) and Katelyn Mather (Western University)

Living on the Edge: Two Early Late Woodland Components on the Iroquoian-Western Basin Borderland (Thursday, Woodland, 9:20-9:40am, Suite 300)

This paper describes the results of the excavation of two early Late Woodland sites located within the Silver Creek drainage in Elgin County. Excavated by Timmins Martelle Heritage Consultants Inc. in 2012, Silvercreek Locations 9 (AeHf-58) and 15 (AeHf-61) were separated by only 400 metres and lie approximately 3 km north of the Lake Erie shoreline. Ceramics and radiocarbon dates indicate an 11th century occupation. The subsurface features uncovered at both sites consisted of several clusters of pit features and very few preserved post molds. These settlement patterns are reminiscent of those documented on Western Basin Tradition Younger Phase sites in the Leamington area, however, the ceramic assemblages display considerable inter- and intra-site variability. Preliminary analysis suggests that the vessels from Location 9 are most similar to late Princess Point wares, while the vessels from Location 15 are more typical of the Younger Phase, with some vessels also displaying Riviere au Vase Phase characteristics. The paper considers the artifactual and settlement pattern evidence from these two sites and the difficulty of placing the sites within established cultural-historical frameworks.

Tobiasz, Mary Lynn (McMaster University)

Applying Solar and Wind Data in GIS Models to Assess Storage Capabilities at Sites on the Central Northwest Coast (Thursday, Various Papers I, 11:00-11:20am, Prince of Wales)

During the pre-contact period on the Northwest Coast food storage was a seasonal activity that was key to people's subsistence practices. Storage productivity is affected by the amount of food that can be preserved using sunlight and wind in the drying process. One aspect of my Masters research is conducting a regional analysis of central Northwest Coast archaeological sites looking at the patterning of environmental

characteristics related to stored food processing using Geographic Information Systems (GIS). In particular, I am investigating the possibility for correlations between site location and suitability based on environmental conditions. This exploratory analysis was conducted using site information from the Government of British Columbia's archaeology database. My model includes measurements of solar radiation, wind patterns, and exposure to the elements through viewshed analysis. Preliminary results have shown that two village sites, Namu (EISx-1) and Kisameet Bay (EISx-3), receive higher solar radiation during summer months compared to other sites in the same area. On the coast, viewsheds have been utilized to show where villages were defensively positioned to maximize the visibility of approaching water crafts. In addition, I am suggesting that site locations were also chosen based on favourable food drying characteristics. The results will demonstrate how archaeologists already working with GIS models can easily expand their range of tools to enhance their understandings of regional site distribution. Future research using this methodology, combined with excavation data will enable estimations of the potential range of activities at other sites in the region that have been minimally investigated.

Tonning, Christer (see Nau, Erich)

Toupin, Rémi (Université de Montréal), Isabelle Ribot (Université de Montréal) and Jean-François Hélie (UQAM)

Dietary Behaviors of the 19th Century Quebec City Protestants: The Contribution of Stable Isotope Analysis on Dentin (Friday, St. Lawrence, 4:00-4:20pm, Prince of Wales)

The archaeological population of Saint-Matthew, the first post-conquest protestant cemetery of Quebec City, consisted mainly of migrants coming from various regions of the British Empire, and who had to adapt to a new environment. The objective of this study is to see if the stable isotope analysis of dentinal collagen can help us understand how dietary behaviors changed through life, in relation to mobility patterns. As diet is closely related to the original or adopted identity and environment of an individual, it partly informs us on adaptive processes undergone through life. Preliminary stable isotopic projects focusing on bone collagen (C and N) allowed us to confirm that Saint-Matthew had a rather European-like diet. Other analyses focusing on the enamel portion (C, O, Sr) of second molars supported what is known about the various origins of the people buried in this cemetery. This study adds isotopic data (C, N) from dentinal collagen of the second and third molars of 40 individuals. The comparison of the results with data on enamel and bone collagen will help to provide dietary biographies and possible interpretations on the adaptation of those buried in Saint-Matthew.

Treyvaud, Geneviève (Université Laval) and Michel Plourde (Université Laval)

St. Francis River Abenakis in the 18th century and the Fort Odanak Issue (Thursday, Hist Arch, 1:40-2:00pm, Windsor)

Since 1979, the Grand Council of the WabanAki First Nation, mandated by the two band councils at Odanak and Wolinak, has had a mission to ensure a future for the Abenaki nation by offering various operations related to documentation of the past and enhancement of the culture. Thus it seemed natural to integrate archeology in this process. In collaboration with the Abénakis Museum, the band council of Odanak and Canadian Heritage, we developed an archaeological research project to participate in the mission of cultural preservation. This project led to the discovery of an Abenaki village of 18th century and has contributed to a better understanding of their lifestyle during the period of "transition" as well as the "Colonial" period. The data confirmed

an occupation in the territory of the Abenakis of Odanak in the seventeenth and eighteenth centuries and the persistence of a traditional lifestyle likely characterized by longhouses and material culture marked by the transformation of European materials. The material culture of the Abenaki is also of significant connections among the Abenakis of the Jesuit mission of Old Point and the village of Norridgewock (Tracy Farm), Maine, which formally supports the migration of populations from south to north. This presentation focuses on the results of investigations carried out since 2010.

Trinks, Immo (see Nau, Erich)

Trottier, Stéphanie (Université de Montréal)

Palaeoethnobotany of the Droulers Site (Friday, St. Lawrence, 2:00-2:20pm, Prince of Wales)

Our research project focuses on the Droulers site; the most important iroquoian village of Saint-Anicet's complex of villages. The principal goal of this communication is to discuss the main results obtained from the analysis of botanical macroremains collected on different contexts of the site. Taxa identification, ubiquity, morphology and spatial distribution will be amongst the subjects addressed. Thus, the ubiquity of maize and the presence of bean, squash and sunflower demonstrate the preponderance of agriculture as subsistence strategy. As for the presence of fruits and nuts, it reflects the practice of gathering. Furthermore, the plant remains' distribution reveals that the midden is the context which contains the largest number of them. It also holds almost exclusively the species bean and plum while maize is distributed amongst the contexts. Generally speaking, the data from the Droulers site is comparable to those of contemporary village sites.

Uukkivi, Raivo (Cassels Brock)

Duty to Consult - What Is and What Is not Required of the Professional Archaeologist (Saturday, Business, 3:20-3:40pm, West Ballroom)

While the "duty to consult" provides a minefield of problems for all levels of government and landowners, archaeologists are often the ones on the front line of this issue. The challenge is that relatively recent Supreme Court jurisprudence has articulated an expanded duty imposed on the Crown, but the manner in which this duty has been applied in the administrative decision making process, such as in archaeology, remains ambiguous and inconsistent.

Governments are generally looking for ways to download much of this obligation to private parties that do not represent the Crown, including archaeologists. Despite the downloading of these obligations, there continues to be a lack of clarity regarding what a government can appropriately require an archaeologist to do in order to meet the Crown's "duty to consult" and what an archaeologist must do to comply with their licensing obligations. This is because the "duty to consult" is often loosely used by government decision makers in circumstances where the scope of that duty has not been fully considered by our courts. This presentation will focus on recent jurisprudence to demonstrate how courts have defined the parameters of the duty to consult and then turn to what that means for the day-to-day practice of archaeology including: the basics of what archaeologists need to know to understand the "duty to consult", outlining where archaeology stands within the decision making process and what the implications are of not doing enough or doing too much.

Urban, Thomas M. (see Wolff, Christopher B.)

Venovces, Anatolijs (see von Bitter, Robert)

Venovces, Anatolijs (Sir Sandford Fleming College), Dan Kellogg (Archaeological Services Inc.), Blake Williams (Archaeological Services Inc.), and John Dunlop (Archaeological Services Inc.)

Thirty Years of Geophysics: Exploring the Subsurface Landscape of the Fort York National Historic Site (Thursday, Geophys, 11:40am-12:00pm, West Ballroom)

From Claus Breede's 1976 electrical resistivity field trial to Archaeological Services Inc.'s 2009 and 2010 ground penetrating radar surveys, the Fort York National Historic Site (AjGu-26) has been Toronto's testing ground for geophysical survey techniques in archaeology for over 30 years. Together these episodes forge a chain of practical field studies whose contributions to the archaeological discipline cannot be overlooked. This paper amalgamates three decades worth of electrical resistivity, electromagnetic, and ground penetrating radar surveys along with historical mapping and standard archaeological excavations of their associated target areas through a geographical information systems (GIS) approach. In doing so, this paper will demonstrate what each of those studies tried to do individually and show that preliminary geophysical surveys can not only guide archaeologists in where to excavate but also minimize disturbances to archaeological resources while maximizing their interpretive potential. In the process, it will be shown that when different geophysical approaches are amalgamated into the same GIS master plan, new information about the former landscape is revealed.

Vickruck, Cory (Lakehead University), Clarence Surette (Lakehead University), and Carney Matheson (Lakehead University)

Preliminary Assessment of the Variability of Lithic Types from the Gunflint Iron Formation (Friday, Poster Session A, 9:00am-12:00pm, Foyer)

The Gunflint Iron Formation (GIF), which extends from the boundary waters between Ontario and Minnesota to Shreiber Ontario, has been an important source for lithic material in Northwestern Ontario since the Paleoindian period. GIF lithic material has been studied and described by many researchers over the years, yet little is known about the variability of the material between and within outcrops. Our current research seeks to more comprehensively re-evaluate the range of variation found within the GIF, specifically regarding to characteristics favoured for stone tool production. This is calculated to address a past tendency to minimize differences noted within the GIF that might impede interpretation of raw material selection choices by the ancient artisans. Lithic samples were sorted using non-destructive geological methodologies. The most important macroscopic attributes directly reflect upon the utility/value of the specimen as toolstone (i.e. luster, hardness, inclusions, ect.). Preliminary results show that there are many previously undefined subtypes noted within the Gunflint Iron Formation. At issue is whether these subtypes reflect variation between beds within the GIF that might be available at specific quarry-outcrops. This might enable identification of primary raw material sources within the larger GIF. This more explicit characterization of the variation within GIF will also enable reclassification of archaeological specimens that have been erroneously identified as deriving from other geological deposits or sources.

Vogelaar, Colton (University of British Columbia)

Yadlee Stone Circle Project: Results and Conclusions of Student-led Archaeology (Saturday, Old World II, 1:40-2:00pm, Duke of Connaught)

Yadlee Stone Circle Project was an independent student project conceived, led, and carried out from March 2013 – May 2013 in Edinburgh, Scotland. The project gave undergraduate students the invaluable experience of independently completing a project from inception to publication. Yadlee is a scheduled ancient monument in the Lammermuir hills of Scotland, where a circle of seven stones was originally identified in 1913. Through desk based assessment, targeted landscape survey, GIS analysis, field data collection, and accurate surveying of the ancient monument, Yadlee Stone Circle Project expanded the number of associated stones to 25, evaluated the surrounding landscape, assessed the archaeoastronomical significance of the location, and significantly contributed to the archaeological understanding of the Yadlee area. The results were relayed to the public during the project through social media, and a final report was published, culminating in several conference presentations. Clearly, Yadlee Stone Circle Project demonstrates that the student resource in archaeology is valuable for the expansion and dissemination of the archaeological record. The concept of a student led, independent, project has been established as an annual opportunity for students, and this concept is encouraged in Canadian archaeology.

von Bitter, Robert (Ministry of Tourism, Culture and Sport), Shari Prowse (Ministry of Tourism, Culture and Sport), Anatolijs Venovces (Sir Sandford Fleming College), Yasmin Olivia (Sir Sandford Fleming College), and Meaghan Cameron (Sir Sandford Fleming College)

Out of the Grey and into the Map: Maximizing the Research Potential of Archaeological Data (Friday, Modernization, 2:00-2:20pm, West Ballroom)

One of the roles of the Ministry of Tourism, Culture and Sport's (MTCS) Archaeological Data Co-Ordinator is to provide researchers with access to the archaeological information they require for their studies. This is accomplished, primarily, through keyword searches of fields contained in the Ontario Archaeological Sites Database (OASD). Most of the time the searches lead to useful results but with atypical queries, satisfactory results are sometimes not obtained.

Every year, over 2000 archaeological reports are submitted to the Ontario Ministry of Tourism, Culture, and Sport as a condition of the author's archaeological licence. These reports represent an important component of the archaeological record. This information has the potential to supplement the site information found in the OASD to help address a broader range of queries to better facilitate research. This paper will review the team's work aimed at using this "grey literature" of the archaeological reports to vastly improve how future archaeological research can take place in the province.

von Bitter, Robert and Frank Krist

Raising New Questions about Old Ideas: Falling Water Levels and Early Paleo-Indian Landscapes (Saturday, Paleo-Indian, 1:40-2:00pm, Suite 300)

We investigate the widely accepted theory that Early Paleo-Indian sites adjacent to remnant features of glacial Lake Algonquin were occupied while the strandline was active. Growing evidence collected by the authors in southern Ontario and Northern

Michigan is raising questions about this theory and suggests strandlines associated with Lake Algonquin may have been more suitable for human habitation after water levels dropped. This paper provides multiple lines of inquiry and discusses some implications for Paleo-Indian research.

von Heyking, Kristin (see Olsen, Karyn)

Walde, Dale (see Edwards, Kim)

Wagner, Teresa (see Cappella, Katherine)

Warrick, Gary (see Glencross, Bonnie)

Wells, Patricia (University of Western Ontario), Robert Anstey (University of Cambridge), M.A.P. Renouf (Memorial University), and Trevor Bell (Memorial University)

Summer Life at Phillip's Garden: Indications of Shifting Seasonal Demographics at Dorset Sites on the Point Riche Peninsula (Saturday, Circumpolar, 9:40-10:00am, Duke of Edinburgh)

The Point Riche Peninsula on the northwest coast of Newfoundland was an important location for Dorset settlement during the period 2000-1200 BP (calendar years before present). Much of the occupation was centered on the large, densely populated site of Phillip's Garden (EeBi-1) from which harp seals were hunted in the winter and again in the spring during their southward and northward migrations, respectively. Once the hunts were over and the weather warmed, the busy period of skin-working began and it would appear that the demographic profile of the site shifted. A recent spatial and temporal analysis of bone, antler and ivory tools identified a relatively high frequency of sewing needles in one middle phase dwelling. This suggests the possibility that during the warm season, the gender character of this dwelling changed. This, along with supporting evidence from the nearby site of Point Riche (EeBi-20), could furthermore reflect a wider change in Dorset social organization during the late spring and summer on the Point Riche Peninsula.

Wells, Patricia (see Hodgetts, Lisa)

Werner, Jeff (University of Alberta)

The Evolution of Modern Behavior in Middle Stone Age East Africa: An Analysis of Lithic Artefacts from Magubike Rockshelter (Thursday, Old World I, 10:00-10:20am, Prince of Wales)

This paper presents preliminary archaeological findings from Magubike Rockshelter, southern Tanzania. Ongoing electron spin resonance (ESR) dating of the site indicates that human occupation was present here as long ago as 250,000 years before present, with habitation occurring semi-continuously from this time until the historical period. The consistent presence of humans at Magubike has resulted in abundant deposits of lithic artefacts, faunal remains, pottery, beads and the byproducts of iron smelting. Of particular interest are the levels of the site dated to the African Middle Stone Age which coincide with the emergence of modern Homo sapiens around 200 thousand years ago. While conventional theories of human evolution propose that modern human behavior evolved independently of skeletal anatomy, with the former appearing much later, around 40 thousand years ago, current evidence strongly contradicts this scenario. In particular, a substantial body of data from Africa shows that modern archaeological traits such as sophisticated subsistence, social, technological and symbolic behavior were in place near, if not before, the speciation of Homo sapiens. Although behaviorally modern traits are identifiable earlier than

previously suspected there is still no agreement on the pace and mode of their appearance, nor are the causes of this behavioral transformation known. Magubike Rockshelter is a relatively new site, located in an archaeologically unexplored region of Tanzania. The materials so far excavated provide an excellent opportunity to test assumption about the emergence of behavioral modernity during the Middle Stone Age and to expand on the culture-history record of this part of East Africa.

Westby, Kira (see Ferris, Neal)

Wheeler, Sandra M. (University of Central Florida), Lana J. Williams (University of Central Florida), and Michael W. Spence (University of Western Ontario)

Death and Disability in a Younge Phase Community: Perspectives from the Roffelsen Site (Saturday, Michael Spence, 2:20-2:40pm, Prince of Wales)

This paper presents the mortuary findings from the Roffelsen site, a single burial pit dated to the early Younge phase (ca. A.D. 900-1000) in southwestern Ontario. This mortuary feature contained the remains of seven successively buried individuals ranging in age from infancy to older adult. All individuals showed evidence of extensive mortuary processing, including defleshing of soft tissues, cranial disk removal and drilled holes near bregma. In addition, all but the infant individual displayed various forms of abnormal development of the outer and middle ear, as well as the petrous portion of the temporal bone, which would have contributed to significant hearing impairments in life. This disability may have contributed to their particular burial treatment and placement within the associated palisade.

White, Christine D. (The University of Western Ontario), Fred J. Longstaffe (The University of Western Ontario), and Michael Spence (The University of Western Ontario)

The Women of Teotihuacan: An Isotopic Perspective (Saturday, Michael Spence, 3:20-3:40pm, Prince of Wales)

Previously studies done with Mike Spence on oxygen isotope data from Teotihuacan, Mexico, were used to demonstrate the usefulness of residential histories in reconstructing gendered behavior. Teotihuacan was a cosmopolitan city that depended on immigration for maintenance and expansion of its population. We compare marriage patterns, economic and social roles of women living in neighborhoods of differing ethnic composition, and examine their relationship to social identity and the needs of the state. It appears to have been quite common for women to have valued social roles and/or high status in Teotihuacan. In the Zapotec enclave of the city, Tlailotlacan, the maintenance of ethnic identity can be attributed largely to women, who were gatekeepers of enculturation and frequently moved across the landscape, even while pregnant. In the Merchants' Barrio, a residential collection of traders who had origins in several parts of Mesoamerica, both local and immigrant women were able to maintain or achieve high status.

White, Christine D. (see Morris, Zoe H.)

White, Christine D. (see Olsen, Karyn)

White, Christine D. (see Spzak, Paul)

Wiedman, Donald (Wiedman Communications)

Vikings in French Canada (Saturday, Various Papers III, 2:40-3:00pm, Duke of Connaught)

The lost Norse settlements of Vinland, Markland and Helluland have been claimed by many to have been located in numerous geographical locations up and down the east coast of North America – but never has it been seriously speculated that the Vikings could have settled up the St. Lawrence River, deep within French Canada. Until now.

Donald Wiedman, a 20 year public relations professional with a strong Arts background, will explain how his new interpretation of The Vinland Sagas sees lost sailor Bjarni Herjolfsson sailing a few hundred kilometres further south than commonly believed, past Newfoundland's east coast, sighting first Cape Breton Island's "well wooded low hills", then north to Anticosti Island, followed by Newfoundland's Great Northern Peninsula's Long Range Mountains.

Leif Eiriksson's follow-up voyage sees the Norse return to explore the new world, through the Strait of Belle Isle and clockwise around the Gulf of St. Lawrence, then up the St. Lawrence River as far as the mouth of The Saguenay River. On his second voyage, Leif explores further 'south' or 'up' the St. Lawrence River - discovering the agricultural 'jewel' of the island of Laval and expansive 'good earth' of neighbouring Terrebonne, Quebec.

Donald will illustrate how the three important elements of Vinland: 'grapes', 'meadows' and 'oasis' are all characteristic of the region. He will also back-up his new Saga interpretations with physical and historical evidence, including tides and spring ice floes, identical New France settlement patterns (c. 1650), and early settlers' massacres at the hands of the Iroquois nation (Vinland's 'Skraelngs').

Williams, Blake (see Venovces, Anatolijs)

Williams, Lana J. (see Wheeler, Sandra M.)

Williamson, Ronald F. (see Abedin, Zeeshan)

Williamson, Ron (see Striker, Sarah)

Willows, Erin (Stantec) and Amanda Ronning-Sammet (Stantec)

Human Remains in Archaeology Sites: Is There Responsibility to Rebury? The Role of CRM (Thursday, Various Papers I, 11:20-11:40am, Prince of Wales)

This paper presents a consulting perspective of the on-going archaeological investigative issue of reburial of human remains in coastal British Columbia. Consulting firms frequently identify human remains during archaeological investigations as part of provincial heritage resource management studies legislated under the BC *Heritage Conservation Act*. Over the past few years, a number of projects have led to a rethinking of fundamental aspects of archaeological investigations in which human remains are recovered – how do we, the community of stakeholders, make this happen in a culturally sensitive, time efficient and cost effective way? This issue will be explored within the context of three coastal BC projects. These examples represent three primary proponents of consulting archaeological programs in BC: 1) Federal 2) private corporate and 3) private residential. These examples will be used to demonstrate some of the challenges faced within the realm of consulting archaeology when the reburial of human remains becomes an issue.

Currently human remains recovered from archaeological contexts within BC are surrounded by much lore, and the media has placed a fear-mongering spin on coverage of this topic. This has resulted in the knowingly unlawful destruction of heritage sites and the disrespectful treatment of human remains from archaeological sites. An initiative of our consulting firms' Bioarchaeology team aims to combine the traditional knowledge and practices of coastal First Nations groups with innovative solutions involving the collaboration of all other stakeholders, including archaeologists, developers, property owners, government regulators and the greater community. A key component of this initiative: community engagement.

Winchell-Sweeney, Susan (see Lothrop, Jonathan C.)

Wojtowicz, Robert (Archaeological Services, Inc.), Amy Fox (SUNY Albany), Robert H. Pihl (Archaeological Services, Inc.), Aleksandra Pradzynski (Archaeological Services, Inc.), John Sleath (Archaeological Services, Inc.), and Andrew Riddle (Archaeological Services, Inc.)

Statistical and Spatial Analysis of Ceramic Artifacts of the Joseph Picard Site, an Ancestral Wendat Community (Saturday, Spatial, 11:40am-12:00pm, Windsor)

Ceramic assemblages have long played a prominent role in establishing temporal and cultural affiliation in Iroquoian archaeology; however, few analyses of intra-site vessel form, design, and spatial distribution have been undertaken with large assemblages. This paper discusses the results of a highly-detailed ceramic analysis of the Joseph Picard Site. This Ancestral Wendat village, which dates to the early 15th century and has produced one of the largest ceramic assemblages in Ontario, was excavated by Archaeological Services Inc. from 2010-2012 in advance of a highway infrastructure project. The Joseph Picard ceramic assemblage was analyzed using a specially-designed database to create a high-resolution dataset composed of qualitative and quantitative attributes. This paper presents the results of a statistical and GIS-based spatial distribution analysis of ceramic vessel form and design exploring patterns in vessel manufacture practices across the site with special attention to variability within and between traditional ceramic type classes.

Wolff, Christopher B. (SUNY Plattsburgh), Donald H. Holly, Jr (Eastern Illinois University), Taylor Testa (SUNY Plattsburgh), and Brennan Chambers (SUNY Plattsburgh)

Dorset Paleoeskimo Technological Practice and History in Eastern Newfoundland: A View from Stock Cove (Saturday, Circumpolar, 11:00-11:20am, Duke of Edinburgh)

The Stock Cove site (CkAl-3) of Eastern Newfoundland is a deeply stratified multi-component site. The densest deposits belong to Dorset Paleoeskimos who occupied much of the Newfoundland coast between 2000 and 1200 years ago. Stock Cove contains evidence of an extensive history of use by the Dorset, giving us the rare opportunity to study long-term changes in their settlement strategies and technological practices from their colonization of the area to its abandonment. Excavation of the site over the last few years by the authors, and previous studies by other researchers, has provided a large body of lithic data that allow us to examine changing procurement strategies possibly associated with colonization and landscape learning, as well as the creation of regional variation in tool assemblages. The study presented here focuses on how these data can inform us about the formation and maintenance of regional technological industries and perhaps serve as proxies for the creation of regional identities within the larger cultural context of Newfoundland and Labrador.

Wolff, Christopher B. (SUNY Plattsburgh) and Thomas M. Urban (University of Oxford)

A Geophysical Investigation of the Stock Cove Site (CkAl-3), Southeastern Newfoundland (Thursday, Geophys, 9:00-9:20am, West Ballroom)

The Stock Cove Site of Newfoundland is a large, multicomponent, deeply stratified site containing evidence of almost every culture to have inhabited the island. Because of the richness and complexity of the site our ability to utilize it to answer specific questions can be overwhelmed by the sheer amount of material recovered in even small-scale excavations—often material not directly relevant to our more focused research questions—and the large spatial extent of the site. This can siphon time and money away from particular research goals and often runs contrary to archaeological ethics of least disturbance. For these reasons, we chose to use geophysical techniques at Stock Cove in an attempt to obtain information about subsurface cultural and natural deposits that could focus future research and minimize site disturbance. This paper presents results from a survey using ground penetrating radar and magnetometry at the site. Multiple features and structures were discovered at Stock Cove that will help focus future research at the site and which demonstrate the growing potential of non-traditional techniques in archaeological research.

Wood, Lara (Western University; New Directions Archaeology)

Understanding Early Woodland Meadowood Complex Settlement Patterns in Southwestern Ontario (Thursday, Woodland, 9:00-9:20am, Suite 300)

The distribution of known Meadowood sites in southern Ontario extends from Windsor to Niagara, and as far north as Deep River. Although recent work has been completed on the extensive Meadowood Interaction Sphere across the Northeast, little research has been done on the settlement-subsistence patterns of Meadowood complex peoples in southern Ontario. Much of the information necessary for interpreting the pattern has been extracted by CRM excavations and is not widely accessible. My research involves an analysis of the southern Ontario Meadowood settlement system based on information from several recently excavated Meadowood Complex sites, complemented by additional Meadowood data from the Ontario Archaeological Sites Database. The Beaverbrook site and the Stavebank Road site, both large sites, are located on the Thames River and the Credit River, respectively, while the much smaller MSR1 and MSR2, are found inland near a wetland complex. The seasonality of these sites will be examined, along with information about the ceramic and lithic assemblages, to shed light on the settlement-subsistence patterns of Meadowood complex communities in southern Ontario.

Woodley, Philip (New Directions Archaeology Ltd.)

How Many Jellybeans? (Friday, Oral Trad., 2:00-2:20pm, Windsor)

Woolett, James (see Szpak, Paul)

Woolsey, Cora (McMaster University) and Kora Stapelfeldt (Archaeological Services, Inc.)

Life, the Universe, and Every Thing?: Exploring Phenomenology and Materiality in Our Search for Answers to Pottery Questions in the Northeast (Friday, Technology, 3:20-3:40pm, Duke of Edinburgh)

Archaeological discourse increasingly examines the materiality of the artifacts and landscapes we study as a means of interrogating the lived experiences of past peoples instead of simply chronicling culture history. In practical terms, this has meant the reformulation of questions asked of the archaeological record, emphasizing intentionality, performance, and social consequences over needs-fulfilment and technological development. However, major barriers to this kind of approach include a pervasive lack of systematic comparative studies that begin with systematic experimental research to understand the salient technological and social properties of artifacts and their constituent ingredients, and the conditions under which they are deposited and preserved in the archaeological record. We suggest that a true understanding of the importance of technologies and the things produced thereby requires a broad contextual knowledge-base that can be divided roughly into three main empirical problems: 1) spatial distribution; 2) taphonomic and technological studies (experimental archaeology); and 3) sourcing materials. We use two examples of ceramic problems to illustrate this point. First is the question of why conoidal shaped pottery in the Maine–Maritimes region was ubiquitous only until the Late Woodland period, after which spherical vessels became more common. Second is the spread or invention of shell temper along the Eastern Seaboard and throughout the Midwest at roughly the same time around 1000 BP. Both examples are likely best explained by reference to a number of related factors and processes, but the lack of in-depth, comparative and experimental research has resulted in highly speculative explanations in the literature.

Yellowhorn, Eldon (Simon Fraser University)

First Nations Historical Archaeology: Mainstreaming the Marginal (Thursday, Hist Arch, 4:00-4:20pm, Windsor)

Historical archaeology of first nations is a niche practice within the discipline that is only now appearing as a viable option for imagining the past. My experience with the Piikani First Nation is among the few attempts to introduce this approach to community-based research. In conducting my own research I became aware of the challenges of practising a novel method that elicited biases toward archaeology and local history. It revealed that their historical imagination emphasizes their ancient ancestors' lifeways rather than the immediate past associated with the reserve era. Therefore, my focus on the reserve's history using archaeological methods and employing videography to record my research created a new dialogue about holding up the lens of time to see the patterns of activity that led to present-day conditions. Local residents are not accustomed to seeing their story told using the documentary format, but the technology and software puts that option as a plausible outcome from research and a suitable platform for disseminating the subsequent narrative. So my independently produced video documentary *Digging up the Rez: Historical Archaeology at Piikani* shows the potential for knowledge mobilization using this approach. Increasingly archaeologists will embrace this platform to augment their publications, which typically circulate among like-minded researchers and seldom reach beyond the profession. Moreover, first nations are unaccustomed to having their story told in the documentary format. This medium allows communities to visual their history and share their perspectives.

Young, Meredith H. (see Lothrop, Jonathan C.)

Zawadzka, Dagmara (Université du Québec à Montréal)

Contesting Homogeneity: Canadian Shield Rock Art of North-Eastern Ontario and Band Territories (Thursday, Old Data, 3:20-3:40pm, Duke of Connaught)

Canadian Shield rock art is most often interpreted as a sacred phenomenon, a form of visual expression that represents idiosyncratic dream visions. The images are idiosyncratic and no stylistically diagnostic elements seem to be evident. At the same time, the homogeneity in form and subject matter has precluded the identification of regional styles. Recently, new interpretations regarding the multifunctional nature of rock art have been offered (e.g. Norder 2012, Zawadzka 2014), which demonstrate that rock art served functions beyond the sacred realm of existence. What about the homogeneity of the images and their idiosyncratic nature? Though stylistic studies have been attempted and regional tendencies identified (e.g. Conway 1979, Rajnovich 1981, Lemaitre 2013), no in-depth regional analysis has been undertaken, which could shed more light on the complexity of rock art in the Canadian Shield. This paper will explore these issues by examining the rock art in band territories of north-eastern Ontario.