ARCHAEOLOGICAL NEWSLETTER

Issue No 1: December 2012 & January 2013

ARCHAEOLOGICAL SOCIETY OF ALBERTA

Welcome to the 1st issue of the Archaeological Society of Alberta Archaeological Newsletter!

The Power of the Atlatl

by Janice Andreas, ASA Southeastern Centre

The Southeastern Alberta Archaeological Society otherwise known as Medicine Hat Centre meets the third Wednesday of the month. We usually have speakers but in September we did something different; we brought in Ralph and David Heydlhauff from Manyberries to give a demonstration of atlatl throwing. Anna and John Brumley of Havre, MT. had spoken highly of David and Ralph's enthusiastic support in the demonstrations and atlatl competitions held during Open House days at the Wahkpa Chu'gn Buffalo Jump and their special knack for teaching everyone how to throw. (Under their guidance a three year old girl hit the target at the open house this year.)

It was a last minute request but they were game to make the two hour trip to Medicine Hat. They supplied all the equipment and we just had to find an area that could be roped off - they suggested 300 yards of distance or preferably an embankment as a backstop. Thankfully the Police Point Nature Centre staff were supportive as usual and supplied the necessary location. When we saw the distance roped off as requested some of us laughed - little did we know of the gifts of the atlatl.

The first gift was the power of attraction. People walking by just had to come over and see what we were doing. At first they were shy of trying it, "no thanks, I'll just watch - well maybe ... then, hey! You've got to try this!"

The second gift was instant passion for it. I soon saw that this gift was a double edged sword. People were laughing, cheering or loudly groaning and after a few turns it was a struggle to politely step aside. Hmm, I began to wonder who I was going to elbow to get my turn.

Finally I was up. Now there is a mistake that everyone makes when they first throw the atlatl. I had heard Ralph and David say over and over "don't stop, let your arm follow through". I was ready and with the first throw I ... *did not* follow directions. Rats! only two more tries. In a moment of brilliance born of desperation I visualized whipping the ground in front of me; the atlatl sailed through the air. Yay! Of course I didn't hit the target but geez I went past the target - what more do you expect from me? I'd discovered third power of the atlatl - even my little chicken arms could make me feel like superman.

As daylight faded we wrapped it up. One of our members, 11 year Kale had shown a real talent for throwing and I heard him say to his family as they left "Dad that's what I want for Christmas".

"Me too" I thought. Now I can hardly wait to book the Heydlhauffs for another demo next year. Of course I'm not going to advertise it. It will be just Kale and me hitting that bull's-eye and having fun.

Strathcona Archaeological Society Flintknapping Workshop

by Christie Grekul

On Saturday November 24th the Strathcona Archaeological Society hosted a Introduction to Flintknapping Workshop at the University of Alberta. This workshop, the first one held by the SAS, was a huge success! The event was organized by Kurtis Blaikie-Birkigt and and led by Sean Lynch.

Sean Lynch is an Department of Anthropology MA candidate at the U of A with the Baikal Hokkaido Archaeology Project. Sean's MA research is an obsidian sourcing project on Rebun Island, Japan. He is using portable X-ray fluorescence to characterize obsidian artifacts and source them.

Sean started flintknapping during his undergraduate degree at McGill University. "Flintknapping got me hooked on archaeology," Sean shared. "I had a blast making tools, perfecting my craft, reading about knapping, and watching YouTube videos on it." Sean feels that flintknapping is a very accessible form of archaeology that attracts participants of all ages: "It grabs the attention of the public and is the oldest representation of everyone's ancestry."

Fourteen participants took in the workshop, including anthropology students, members of the public, and people interested in learning traditional life skills. Participants learned the basics of flinkanpping and the SAS is planning on hosting another introductory workshop in early 2013, followed by a more advanced workshop led by Tim Rast.

Three novice knappers learn the tricks of the trade. Left to right: Lee Solotki, Nathan Kowalski, and Stu Blaikie.

Rigel Borch, a 10 year old fiddle player who had never flintknapped

ASA December 2012 and January 2013 Events

Contact Christie Grekul at cgrekul@shaw.ca for detailed information on any of these events

Dec. 3: "The Farwell's Trading Post," Bill Perry at New Dynasty Restaurant in Lethbridge.

Dec 13: SAS Christmas Social at the RAM in Edmonton.

Jan 15: Lethbridge AGM: "Graffiti Removal at Writing-On-Stone," John Easton at the Community Room, Lethbridge Public Library, Downtown Branch.

Jan 16: Bodo Archaeological Society meeting.

Jan 16: "Industries if Angkor Project: Material Production and the Decline of the Khmer Empire, Cambodia," Mitch Hendrickson at the U of C.

Jan 16: "The Gatling Gun of Batoche: The impact of American technology on the Canadian battle. Bruce Shepard at Police Point Nature Centre, Medicine Hat

Jan 17: "Seeing Things: How a North American Archaeologist looks at African Wildlife and Heritage," Jack Ives at the U of A.

Sean Lynch, showing off an obsidian tool that he recently crafted.

Call for Papers

38th Annual Meeting of the Archaeological Society of Alberta

May 10-12, 2013 in Medicine Hat, AB

Papers and posters on all topics relating to archaeology, history, and the heritage of Alberta, the Great Plains, and Canada are welcomed. We particularly wish to encourage presentation from the consulting community of interesting finds documented during the course of CRM projects. In keeping with the ASA mandate, we also encourage the participation from students, avocational archaeologists, and the public.

Please contact Janice Andreas at Banjomh1@telus.net for more information or to submit an abstract. Submission deadline is February 1, 2013. Also visit www.arkyalberta.com for more information.

2013 ASA Awards

The ASA has established two awards that may be awarded each year to recognize the work of an individual(s). Winners of these awards are honoured during the ASA annual general meeting.

Distinguished Service Award

The Distinguished Service Award is granted to an individual(s) who has provided a distinguished, long-term record of services to their local centre of the Society, participated in the provincial level of the society, contributed to the discipline of archaeology in the province, increased awareness and/or education on public issues of archaeology, and contributed to the promotion of the Society.

Johan (John) Dormaar Award

The John Dormaar Award is granted to an individual who, through production of a substantive piece of written work, has significantly advanced the understanding and appreciation of Alberta archaeology and related disciplines.

For more information on either of these awards or to nominate someone, please contact Jim McMurchy at jnemc@telus.net

Hunting Buffalo Under the Ground: Encounters in Heritage Management

by Claire Poirier

At a well-known archaeological site in Alberta a diverse group of individuals gather together on a large tarp to participate in a ceremonial feast. A Plains Cree woman, having discovered that the ancestral spirits at this site were hungry, had invited a ceremonialist from her community to carry out the feast. I tagged along since, as an anthropologist studying archaeological and heritage management practices in Alberta, the gathering greatly sparked my interest.

As many people working in Alberta's heritage sector are aware, First Nations' ceremonial activity at archaeological and heritage sites has undergone a recent increase in frequency. And, people working in this area are likely familiar with the broad range of issues which may arise as ceremonial laws and practices interact with the laws and practices of Alberta's framework for heritage management. While in some instances these interactions result in meaningful dialogue, long-term relationships and collaborative solutions, in others they may lead to countless roadblocks and failure to reach any kind of consensus.

My own research, carried out through the archaeology department at Memorial University of Newfoundland, sets out to understand the complex and subtle dynamics which both inform and emerge from processes whereby Plains Cree heritage is managed by the province of Alberta. I start by drawing into question the assumption that there is a single, stable, agreed-upon reality, and from there I investigate how and why contestation and conflict, or collaboration and cooperation, emerge as interactions between more than one reality take place.

To illustrate, here I return to the scene described above in order to recount a brief exchange, as the feast came to a close, between the site's archaeologist and the Plains Cree ceremonialist.

Archaeologist: Thanks for coming, I'm so glad you could make it.
Ceremonialist: Yeah, glad we could come.
Archaeologist: You should come back sometime, I'd love to tell you more about the work we do here.
Ceremonialist: Yeah, sounds good... you know, we have our own way of finding buffalo skulls under the ground, and we don't even have to dig to find them.

Evidently, the archaeologist and the ceremonialist see material under the ground in very different ways. Though referring to the same material objects, the archaeologist sees them according to their training in excavation, documentation, and interpretation; the ceremonialist sees them according to knowledge derived through adherence to a system of ceremonial protocols. These sets of practices, though situated in very different realities, also have many parallels. Each is passed on through a particular lineage of teachings. Each carries its own conceptions of time and space, and its own methods of ethically transmitting information. And, perhaps most importantly, each carries its own obligations which are mandated as 'law'.

My research asks: where is one reality or set of laws given priority over the other, and with what consequences? Under what circumstances can meaningful dialogue take place?

Claire Poirier is a PhD student (www.mun.ca/archaeology) and an IPinCH Fellow (www.sfu.ca/ipinch/) Please direct comments or questions to: ccp368@mun.ca

CRM, Winter Conditions, and the Boreal Forest

by Kurtis Blaikie-Birkigt, Tree Time Services Inc.

Specializing in forestry archaeology in Alberta, I haven't had much opportunity to work in winter conditions. One of the nice things about forestry is its long planning horizon and the freedom to schedule our work. Unfortunately, this season, a variety of factors conspired to push some of our fieldwork into late October, and then we got an unusually early and heavy snowfall in northwest Alberta. The heavy snow prevented the ground from freezing, so we went ahead with our planned surveys of forestry cutblocks, conducting landform evaluation and shovel testing as normal.

Trudging through 50 cm of fresh powder gave me some perspectives on moving and living in the boreal forest under winter conditions that I hadn't previously gained. I'd wondered what effect snow cover would have on mobility patterns. Summer travel in the forest tends to follow linear features like river and stream valley margins, but I'd wondered if under winter conditions that would still be the case. This fall it certainly was. We were working on the Chinchaga River upper valley margin, and found that travel along the valley margin was much easier than cutting cross-country or on the slopes or lower terraces. I'd say the advantage was even greater than under summer conditions. The level backcountry had deeper snow than the exposed margins, and the snow on the slopes was even deeper than that. The grey overcast sky and falling snow also obscured the sun, which made it very hard to maintain a bearing cross-country without a compass. Without a landform to follow, I could have been walking in circles and wouldn't know until I hit my tracks.

If I was camping under those conditions, however, I think I'd be choosing very different locations than I would in the summer. The distinct valley margins, corners and points that we tend to focus our assessments on, while having great views of the river, and being on our preferred walking paths, were also very exposed to the biting wind coming out of the northwest. Even the south-facing edges were more exposed. The most comfortable locations we found to break for coffee were just back from the edge, sheltered by immature spruce. For the last couple seasons, I've been suspecting that our focus on exposed corners and points was only finding one class of sites, and this experience reinforces that suspicion. I think that winter camps in particular, and possibly all larger camps, would be located back from the sharp landform edges that we're testing most. Drainage is still a factor, especially on warm winter days when the snow turns to mush, so we should still be looking for local elevation. But maybe we should be testing some less distinct elevated landforms a little back from the edges if we want to find sites occupied during less than ideal weather.

Kurtis Blaikie-Birkigt is a senior project archaeologist at Tree Time Services. Please direct comments or questions to: kurtis@treetime.ca

To comment or contribute to this newsletter, please contact the ASA Provincial Coordinator, Christie Grekul, at cgrekul@shaw.ca.

ARCHAEOLOGICAL NEWSLETTER

Issue No 2: February & March 2013

ARCHAEOLOGICAL SOCIETY OF ALBERTA

"There's an arrowhead in your ear": Bringing together kids and archaeology

by Todd Kristensen, Institute of Prairie Archaeology, Department of Anthropology, U of A

As 10 children stampeded toward the stairway chasing each other with foam arrowheads, I began to wonder about First Aid kits and liability policies. Luckily, our mock buffalo jump, and the junior high visit to the Institute of Prairie Archaeology, resulted in zero fatalities. The interactive exercise is part of a university outreach program and helped instil a sense of the communal labour and skill required by Alberta's hunters. Feedback and quizzes suggest that amidst the chaos and fun, students actually learned something and were hopefully inspired to learn more.

The U School program is an initiative of the University of Alberta Senate, which is an independent body that encourages links between campus and communities. The Senate brings inner city and disadvantaged children to university labs, classrooms, theatres, and studios in order to inspire young minds and teach kids about opportunities that await.

It can be challenging to teach archaeology to children fidgety as chipmunks (with matching attention spans). Graduate students from the Institute of Prairie Archaeology (IPA) address this with a number of interactive events designed to engage and explain. Ancient activities are re-created in the mock buffalo jump, which instructors 'freeze' in mid-action to talk about the archaeological product of past behaviours. A hoop and arrow tournament teaches the history of First Nations games while a tour through the U of A's zooarchaeology lab offers hands-on exposure to the massive and minuscule bones of Alberta's animals.

Regardless of the age group (from grades 3 to 7) kids are taught the importance of seeing the past and that archaeological mysteries are best tackled with creative minds. A memorable grade three student wrote "Thank you for teaching us about Archeology and letting us have fun. I like your drawing of the Woolly Mammoth. I like dogs. I like the U of A. Do you have a dog?" While my presentation did not involve dogs in any way, there are some victories in that response. A young girl wrote "I had a lot of fun learning archeology with you! I loved learning about the bison." Lastly, after explaining his firm conviction to be an engineer like his dad, an elementary school student wrote "Being the hunter was fun. I still like Archaeology!"

Senate U School events will continue to be hosted at IPA in 2013. The institute director, Dr. Jack Ives, has always encouraged interactions between his graduate students and visiting pint-sized scholars. For MA and PhD students, the U School program offers an opportunity to re-kindle our passion for the past by sharing it with others. And what better way to re-discover the excitement of archaeology than to drive 10 screaming children over a staircase?

Todd Kristensen is a PhD student at the University of Alberta. Please direct comments or questions to: toddk@ualberta.ca

The unsuspecting herd moments before their ill-fated visit to a neighbouring meadow.

Eager hunters assess the pummelling-capacity of foam arrowheads.

UPDATE: 38th Annual Meeting of the Archaeological Society of Alberta

by Janice Andreas, ASA Southeastern Centre

Hello from Medicine Hat. We're continuing to work on our plans for the AGM & conference to be held here May 10 – 12. Posters will be sent out as soon as we get those proverbial ducks, (or are they cats in duck's clothing), lined up. In the meantime I can tell you that:

- the opening reception, Friday evening, will be held at and hosted by the Esplanade Museum and the galleries will be open to you.
- On Saturday the sessions, AGM and banquet will be held at the Medicine Hat college. Some college residences will be available for overnight accommodation.
- The call for papers has gone out. To date presenters include Brian Vivian, Margaret Kennedy, Barney Reeves, Dean Wetzel and Cathy Linowski.
- We're proud to announce our banquet speaker will be Butch Amundsen of Stantec Consulting Ltd. He'll be speaking to us about his in-depth research in regard to the sinking of the *City of Medicine Hat*. Get your minds out of those oil and gas prices folks, this is about what was called "the greatest nautical disaster on the prairies" and we're taking it seriously. (or not…It has been whispered that those who survived this disaster *did not* sail on the Titanic.)

As usual we hope to design an interesting field trip on Sunday to give you a good start on your way back home. We'll be getting the information out as soon as possible but in the meantime plan to come to Medicine Hat the second weekend of May. Send me a note or call me if you have any questions.

Janice Andreas
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Banjomh1@telus.net

ARCHAEOLOGICAL SOCIETY OF ALBERTA-CALGARY CENTRE

INTRODUCTION TO FLINTKNAPPING & STONE TOOL WORKSHOP 2013

For the second year in a row, we are offering the workshop over two days!!

On Saturday March 9th, 2013 we will be offering an Introduction to Flint Knapping. This course will be beneficial to complete beginners as well as those just looking for a little extra practice and a few pointers from the very talented flint knappers, Jason Roe and Tim Rast. The course runs 9am-3pm, at the University of Calgary, Earth Science Building, Room ES 859.

On Sunday March 10th, we will be holding a full "Knap -In Day" with instruction on projectile point hafting and other selected special projects. The workshop will briefly focus on platform preparation and thinning before moving onto to the hafting of arrowheads and spear points to fore shafts. This course is aimed at those with a strong desire to improve their existing flint knapping skills. The course runs 9am-3pm, at the University of Calgary, Earth Science Building, Room ES 859. Please note that in order to take the second day you must have taken the first day or an equivalent course (experience in flint knapping is required).

$35.00 for one day / $50.00 for both

*Includes instruction, materials, and lunch

*Space is limited! Priority will be given to Archaeological Society Members

*Please contact Michael Turney for more Information or to Register

mturney@golder.com

THURSDAYS AT 11:00AM IN THE ROYAL TYRRELL MUSEUM AUDITORIUM | FREE ADMISSION!

FEB 8 Benoit Beauchamp - University of Calgary
Permian-Triassic Mayhem: Lead-up, Catastrophe and Aftermath of the Earth's Largest Mass Extinction Viewed From Arctic Canada

FEB 14 Alexander Wolfe - University of Alberta
Paleobiology of Eocene Kimberlites from the Slave Province: Windows into the Past and Messages for the Future

FEB 21 Ryan McKellar - University of Alberta
Canadian Amber, A Snapshot of a Late Cretaceous Forest and its Inhabitants

FEB 28 Caleb Brown - University of Toronto
The Preservation and Diversity of Small Dinosaurs: New Evidence from Alberta Fossils

MAR 7 Ramon Nagesan - Royal Tyrrell Museum
Evidence for "Right Handedness" in the 290-Million-Year-Old Reptile *Captorhinus aguti*

MAR 14 Mike Newbrey - Royal Tyrrell Museum
A New Look at an Old Ray: the Biology, Evolution, and Ecology of Upper Cretaceous *Myledaphus*

MAR 21 Cory Redman - Royal Tyrrell Museum
Evolutionary Trends in Terrestrial Ecosystems Through the Late Cretaceous of North America

If you can't make the drive out, watch the talks on the Royal Tyrrell Museum YouTube channel, posted the following day at http://youtube.com/user/RoyalTyrrellMuseum.

The Application of Rapid Sediment-Based Archaeological Interpretation in Alberta - Introduction to Optical Profiling

by Krista Gilliland and Terrance Gibson, Western Heritage, St Albert

Most Alberta archaeological sites are interpreted using science-based data relating to artifact and feature discoveries made from undisturbed archaeological deposits. Archaeologists, both avocational and professional, use a wide variety of techniques to analyze their recoveries and make the most comprehensive interpretations possible from the data at hand. Ironically, one of the best sources of of scientific data found on every archaeological site is almost entirely ignored during most studies. This information is bundled into the very matrix that artifacts and features are contained in, referred to as sediments.

Sediments are particles that have been transported away from their source (e.g. as the physically weathered products of rocks) and deposited in another location. Sediments may be transported by a variety of forces, such as flooding, glaciation, wind activity, and hill- slope erosion, and are transformed by biological (including human) activities as well. Archaeological work that focusses on artifact-containing sediments in order to document archaeological depositional histories is usually collectively referred to as geoarchaeology studies. True geoarchaeology is rarely performed in the field because geoarchaeological data are hard to collect properly without specialized training, and usually require lengthy and laborious follow-up lab work to produce interpretable results. Most archaeological studies do not have the time, access to expertise or access to analytical resources to do geoarchaeology, particularly in a cultural resource management setting, and as a consequence probably the most important interpretive archaeological data source in many Alberta sites is sifted away every field season without a thought.

Advances in technology and new methods of archaeological sediment analysis are changing this situation, however. Analytical interpretations that are often based on best guesses (i.e. “generalized professional interpretation”), or rely on laboratory work that could take weeks for the results to get back, can now be based on solid, empirical data collected directly from an archaeological profile in a single afternoon, and high quality interpretive results obtained the same evening in a hotel room. This is done through use of a portable OSL reader.

Optically-stimulated luminescence (OSL) is based on the principle that when buried, minerals (primarily quartz or feldspar grains) accumulate an optical signal due to natural radioactive decay taking place at a steady rate within the burial environment. When these minerals are exposed to sunlight, the accumulated signal is released and the mineral’s optical signal is reset to zero. Dating the time since the sediments were last exposed to sunlight requires measuring the accumulated optical signal of the sampled sediments (called the ‘equivalent dose’) and dividing this by the rate of radioactive decay in the burial environment (i.e., the ‘dose rate’). Therefore, optically-stimulated luminescence (OSL) dating is a feasible alternative to radiocarbon dating, especially at sites with a predominance of sand-sized mineral grains and where organic preservation is low. Many landforms in Alberta would be a candidate for this dating method. There are caveats, like in all science-based analytical methods. Problems in interpretation may occur when the sampled sediments are not adequately exposed to sunlight prior to burial, resulting in partial or complete retention of the OSL signal. This would produce an OSL date that does not necessarily reflect the event of interest. Although this kind of incomplete signal resetting cannot be corrected for, it can usually be identified through analysis so that misleading dating information can be purged from the record.

Optical profiling using a portable optically stimulated luminescence (OSL) reader has been used for analysis of sedimentary depositional environments since the early 2000s, but has only been commercially feasible since about 2010. A portable OSL reader provides a record of the optical history of the sediments, and can be used to interpret disturbances such as bioturbation, identify

mineralogical changes and microstratigraphic divisions of a profile, and indicate sediments whose OSL signals are incompletely reset. With portable OSL measurements, sampling for OSL dating is optimized, as sampling can be directed towards undisturbed sediments that have been reset prior to burial, thereby maximizing the likelihood of obtaining meaningful dates and fostering efficient expenditure of available project resources.

Optical profiling can be conducted rapidly in a simple "laboratory" setting; even a darkened hotel room is sufficient to do the work. The resulting non-normalized, or 'raw' OSL measurements are not corrected for factors influencing the optical signal, such as moisture content, grain size, dose rate, mineralogical differences, or grain sensitivities, and do not provide 'absolute' chronometric dates like you would get for contemporary radiocarbon dates, or lab-processed OSL dates. However, they are very useful as a quick method of characterizing sediment depositional histories, and may be used to infer relative ages, assess suitability for formal OSL dating, detect stratigraphic breaks in homogeneous-looking profiles, and interpret the dynamics of sedimentary processes over time. In short, OSL reader information can step past the "educated guessing" you often get when looking at profiles in the field, producing information that points the way to much more comprehensive analysis, especially when coupled with standardized profile characterization that is usually done in the field as part of archaeological profile study.

Collecting Data

Data collection is not overly complicated and requires no special training. The goal is to collect soil samples at regular intervals (or from targeted sediment layers) in a cleaned profile in such a way that they are not exposed to sunlight. This is done by hammering small (1.9 cm diameter, 12-13 cm long) segments of plumbing grade copper tubing into a vertical profile at regular 5 cm intervals. Tube ends are then sealed with copper caps (or a couple of layers of duct tape), labeled with a marking pen, photographed in situ, extracted, and the other end of each tube capped following extraction. Once recorded, pulled and sealed, the samples can then be taken out of the field. Usually, other kinds of data are collected from the profile as well; sometimes OSL dating samples are collected, and depending on the results of the reader, may be sent off for formalized absolute dating. Depending on the number of samples collected, the process usually takes about an hour, plus any extra time needed to adequately clean, draw and characterize the profile.

Figure 1. Samples placed for optical profiling (right) and formal optical dating (left) in a typical northern Alberta sediment profile on an archaeological site.

Measuring Samples

The collected samples can be processed anywhere under safe light conditions (using a photographer's red bulb) in a darkened location such as a hotel room. The instrument used by WH is a portable optical reader system developed by the Scottish Universities Environmental Research Centre operated jointly by the University of Glasgow and Edinburgh University. It is custom-built on a one-off basis by request. The three basic components of the portable optical reader include a detector head containing a photomultiplier tube mounted over a sample drawer system, a control box that triggers the stimulation sources, and a laptop, which provides a user interface and means of logging the data (Figure 2).

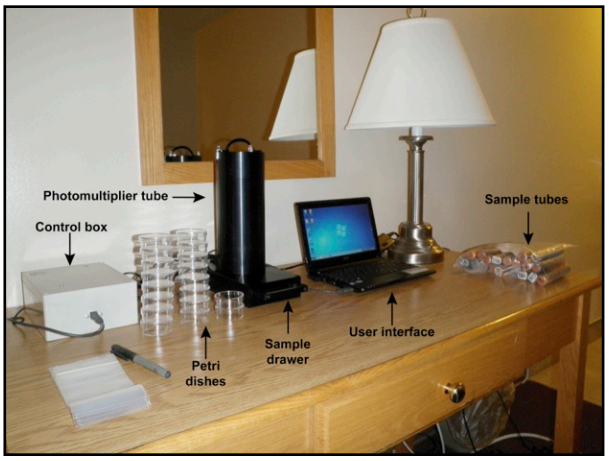

Figure 2. Portable optical (OSL) reader and equipment in a field lab setting.

Sample tubes are uncapped and the middle portion or inside end of the sample is used in analysis. Samples are emptied to fill 50 mm round polystyrene Petri dishes and then placed in the sample drawer for processing. Without becoming too technical, the OSL reader records the number of photon counts detected during stimulations of the mineral grains using different wavelengths of light. Minerals vary in their response to stimulation from the two types of irradiation and this is used to account for mineralogical differences that may occur due to sedimentological changes or weathering.

Interpretation of portable OSL data

Analysis of the luminescence profiles is performed primarily through visual examination and interpretation of a graph derived from the numerical data. Fluctuations in the number of photon counts recorded can reflect a diverse range of sediment properties and should be interpreted using known sediment characteristics, such as those obtained from stratigraphic descriptions or knowledge of geomorphological processes. Additionally, photon counts from a single sample must be interpreted within the context of the optical signals of adjacent samples and of the entire stratigraphic profile. Often, this process results in conceptualizing groups or 'packages' of sediments with similar field characteristics and/or with similar optical signals for interpretive purposes.

An example of these fluctuations is shown in the profile in Figure 3, sampled on a site located near Ft Mackay in northern Alberta. In this profile, variation in the number of optical counts is interpreted such that, although the decrease or increase in counts between samples within a group may reflect differences in age, increases or decreases in counts between groups or 'packages' of sediments may represent changes in sediment properties. These property changes reflect deposition processes. In the example, as interpreted in Table 1, differential depositional processes indicating significant changes in the environment are suggested.

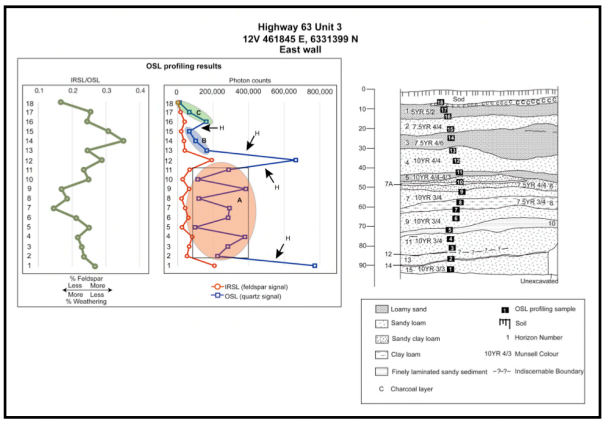

Figure 3. Results and interpretation of optical profiling, Unit 3.H=halt in deposition (hiatus). The gray box around Group A samples illustrates the similarity of the number of counts that correspond to fluctuations in grain size, suggesting relatively rapid accumulation of these sediments. See Table 1 for interpretation.

Group	Layer	Sample	Interpretation of OSL Profile
C	Sod	18	Stratigraphic integrity; sediments accumulated over a period of time.
	1	17	
		16	
	2	15	
B	3	14	Stratigraphic integrity; sediments accumulated over a period of time.
		13	
	4	12	Higher counts than Group A likely reflects increased luminescence sensitivities due to reworking during aeolian deposition.
A	5	11	Fluctuations in the number of counts correlates closely with variations in grain size. Sediments are interpreted as fluvial and of roughly the same age with depth, suggesting rapid deposition.
	7A	10	
	7	9	
	8	8	
	9	7	
		6	
	10	5	
	11	4	
		3	
	13/14	2	
	15	1	Represents a number of discrete influxes of thin layers of fluvial sediment; followed by period of non-deposition and/or erosion

Table 1. Interpretation of optical profile, Unit 3. See Figure 3.

Conclusion

Sediment-based archaeological analysis changes the way archeologists look at sites, even those only examined in a cursory manner as part of preliminary shovel testing. An afternoon spent exposing a site's profile, mapping and describing it, and collecting OSL reader samples (and an evening running up the results) can provide more baseline information about a site's character than weeks of excavation, which in the north often produces only flakes of indeterminate age in uncertain contexts. The key is to get the data that archaeologists have been routinely throwing away. Emerging methods and techniques are now salvaging these data, and will very likely transform our knowledge of Alberta's past much more profoundly in the next five years than during the past five decades that have just passed.

Please direct comments or questions to:
Krista Gilliland kgilliland@westernheritage.ca
Terry Gibson tgibson@westernheritage.ca

Call for Papers

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May 10-12, 2013 in Medicine Hat, AB

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Please contact Janice Andreas at Banjomh1@telus.net for more information or to submit an abstract. Submission deadline has been extended to March 1, 2013. Also visit www.arkyalberta.com for more information.

ASA February and March 2013 Events

Contact Christie Grekul at cgrekul@shaw.ca for detailed information on any of these events

Feb 8 South Eastern Alberta Archaeological Society Supper & AGM, Krista Gilliland, Western Heritage
"Diggin' it: How Dirt can be an Archaeologist's Best Friend," at the Esplanade Studio Theatre.

Feb 21 Brian Vivian, Lifeways of Canada Limited
"Glenbow Quarry and Townsite - A Hundred Years On," at the Galt Museum and Archives.

Feb 21 Pamela Willoughby, University of Alberta
"The Middle Stone Age in southern Tanzania," at the U of A.

March 9 Jason Roe, Lifeways of Canada Limited & Tim Rast, Elfshot Sticks and Stones
Introduction to Flintknapping course, hosted by the ASA - Calgary Centre at the U of C.

March 10 Jason Roe, Lifeways of Canada Limited & Tim Rast, Elfshot Sticks and Stones
"Knap-In Day," hosted by the ASA - Calgary Centre at the U of C.

March 16 Tim Rast, Elfshot Sticks and Stones
Lithic Workshop, hosted by the Strathcona Archaeological Society at the U of A.

March 21 Sandra Garvie-Lok, University of Alberta
"Hippocrates' Ladder and Other Tales: Reconstructing Lives from Ancient Remains at Helike, Greece," at the U of A.

To comment or contribute to this newsletter, please contact the ASA Provincial Coordinator, Christie Grekul, at cgrekul@shaw.ca.

ARCHAEOLOGICAL NEWSLETTER

Issue No 3: April & May 2013

ARCHAEOLOGICAL SOCIETY OF ALBERTA

A Potter's Journey through Archaeological Material Culture

by Sheila Macdonald, Department of Geography, University of Lethbridge

As a practicing potter for over 10 years, I have developed a relationship with ceramics that continues to evolve. Hand building pinch pots in high school art class led to a two year diploma in Visual Arts at Red Deer College. At this time, throwing pots on a wheel did not feel like homework, it was my passion. The pieces I made inspired me to develop other shapes and create more elaborate styles. These experiences have stayed with me. In 2004, I visited the archaeological site of Ban Chiang in Northeast Thailand. This site is famous for its decorative pottery, which the modern, local people have adopted as their own. Not only was I fascinated with the 4000 year old pottery, but I was amazed by this thriving potting community.

Sheila making an Ethridge ware style vessel in Bodo, AB (2007). Photo courtesy of Kimberly Jankuta.

When I returned home to Edmonton, I started taking as many archaeology and anthropology classes as possible at the University of Alberta. I was intrigued with the early methods of pottery manufacture and the development of its use. I was fortunate to take part in the Bodo field school in 2007 under the supervision of Elizabeth Mann, Jason Gillespie, Katie Biittner, and Peter Kirchmeir. I was even more excited when we discovered that my unit had so many pottery sherds! I couldn't be stopped at this point. My free time in the evenings was spent in the lab wedging out clay we had augured at the site in the afternoon. Before anyone knew what was going on, I had made a hand built pot in the style of the Bodo vessels. Thinking back, my pots were likely a combination of Ethridge and Mortlach style pottery, but hey, it was my first attempt.

After graduating with my BA, living abroad, and working in consulting for a few years, I decided to continue with my education at the University of Lethbridge in the hope of understanding this versatile material in the archaeological record. I have chosen to look at Ethridge ware pottery found here in Alberta and the Northwestern Plains. The problem with the pottery in this region is that it is fragmentary and poorly preserved which makes it difficult to visualize complete vessels as well as identify stylistic patterns. This ware is associated with the terminal portion of the Avonlea horizon and the Old Women's phase, with dates ranging from 1200-200 years ago. It is recognized by its globular form, shouldered profiles, thick walls, and cord impressed surfaces. The number of Ethridge ware pieces has now grown to the point that regional and temporal variability may be identified.

I am excited to share my research on Ethridge ware with the Archaeological Society of Alberta and anyone who is interested. Should you have any ceramic pieces you have acquired from the Northwestern Plains, please let me know. I would love to analyze them, and include this information in my thesis. I also welcome any feedback and thoughts on this project.

Hope to see you at the ASA Conference in Medicine Hat!

Please direct comments or questions to: Sheila.macdonald@uleth.ca

Pottery from Ban Chiang, Thailand (2004).

Upcoming April & May 2013 Events

Contact Christie Grekul at cgrekul@shaw.ca for detailed information on any of these events

April 2 Alyssa Hamza, MA student, University of Lethbridge
"Typological Variability in the Late Middle Prehistoric Period on the Northwestern Plains," at the Lethbridge Public Library, Main Branch.

April 25-28 Saskatchewan Archaeological Society - 2013 Annual Gathering and AGM
Regina, SK http://www.saskarchsoc.ca/agm-conference-2/

May 10-12 Archaeological Society of Alberta - 2013 Conference and AGM
Medicine Hat, AB http://www.arkyalberta.com/annual_conference.html

May 15-19 Canadian Archaeological Association - 2013 Annual Conference
Whistler, BC http://canadianarchaeology.com/caa/annual-meeting

History of a Special Kind

by Phyllis McLaughlin, ASA Southeastern Centre

Webster's dictionary defines '*archaeology*' as "t*he science of antiquities especially prehistoric antiquities which investigates the history of peoples by the remains belonging to earlier periods of their existence."* It is indeed a history of a special kind and one which interests many who participate in the Southeastern Alberta Archaeological Society of Medicine Hat and district.

Most people associate archaeology with mere digging. All one needs is a shovel, much strength and some leisure time and the hope that one will find treasure. There is a fascination and kind of romance attached to catching glimpses of man's past adventures, misadventures and lifestyle shining through the dust and trash of an archaeological site. In fact, this fascination for collecting objects of the past has led to the ruin of many an archaeological site.

An archaeologist is a trained scientist and keen observer who sees relationships and is able to interpret what is being found. Since archaeology is an activity that destroys as it preserves, careful records must be kept as these records serve to fill out the story told by

the artefacts and their relationships to one another while *in situ*. Essential skills for an archaeologist include surveying, mapmaking and photography. He is most concerned with relationships, analysis and interpretation *not* with the objects found.

Though archaeology is one of the more recent additions to the 'Sciences', it has developed a technical vocabulary as confusing to the layman as to other branches of the sciences. Fortunately for us in Medicine Hat, the Archaeological Society of Alberta conference will be held here on the weekend of May 10th, 2013. Many authentic archaeologists will be here on Saturday, May 11th to tell us about the sites they are presently working on and the stories of the past that these excavations can tell us.

The culmination to the speaker agenda occurs on Saturday evening at the banquet. It will be of special interest to Medicine Hatters. Butch Amundson, a Saskatoon archaeologist, will take us back to the early 20th century and to the dreams of Captain Horatio Hamilton Ross. The ship Ross designed was christened and launched from Medicine Hat in the spring of 1907. During that summer season she floated down the river on pleasure cruises and shipping ventures.

Sadly, this beautiful ship with its ornate oak and brass decoration and its many amenities was destined to a short life. It was Ross' plan to sail her to Winnipeg, Manitoba. On June 7, 1908, as Ross tried to navigate through the rail bridges at Saskatoon, the ship's rudder became entangled in submerged telegraph wires and she crashed into the southernmost pier of the bridge. No human casualties were reported but the ship was unsalvageable. The sands of time covered her and she was gone but, as it turned out, not forgotten.

In 2006, during a routine training session, Saskatoon Fire and Protective Services divers discovered a large kedge anchor. From photographs of the ship's anchors, it was presumed to be from the SS *City of Medicine Hat* and is now on display beneath the Traffic Bridge at River Landing in Saskatoon. This find led to further underwater excavations and by 2012 over one thousand artefacts had been recovered and archaeologists believe that this is indeed the wreck of the *City of Medicine Hat*. Butch Amundson, the senior archaeologist with Stantec Consulting and the man at the centre of the discovery will be our after dinner speaker on Saturday evening, May 11th.

To learn more about history and prehistory from an archaeological perspective, plan to attend all or parts of the conference which will be hosted by the Medicine Hat chapter of the Archaeological Society of Alberta. It begins with a gathering on the evening of Friday, May 10, continues with sessions and a banquet on Saturday and concludes with a field trip on Sunday.

Please direct comments or questions to: pjmclaugh10@gmail.com

Archaeological Society of Alberta 38th Annual Conference and AGM
May 10-12, 2013

hosted by the Southeastern Archaeological Society of Alberta, Medicine Hat, AB

EVENTS SCHEDULE

Friday, May 10th 6 – 9 p.m. – Registration and reception hosted by the Esplanade Arts and Heritage Centre, Studio Theatre, 401 First Street SE, MH. *Tour of the Esplanade Museum exhibits included.*

Saturday May 11, Medicine Hat College Foyer: 8:30 a.m., Registration continued. 9:00 a.m. Presentations in Room 159.

9:10 Malcolm Sissons, *From Mud unto Mud, the 127 year history of brickmaking beside the Ross Creek"*

9: 30 Cathy Linowski, (Biology instructor, Medicine Hat College). *Discovering the landscape – the plants and ecosystems associated with Archaeological sites in SE Alberta.*

9:50 Margaret Kennedy, Associate Professor, (University of Saskatchewan). *The Cabri Lake Archaeological Project.*

10:15 Coffee Break

10:40 Dale E. Boland, M.A., (Stantec Consulting). *Telling Tales Around the Campfire: Recent Research at Selected Stone Circle Sites in Eastern Alberta.*

11:00 Alyssa Hamza, (M.A. candidate, University of Lethbridge). *Raw Material Utilization on the Northwestern Great Plains during the Besant Phase.*

11:20 Patrick Rennie, (State Lands Archaeologist, Montana). *The Surprise Creek Site: Late Period Bison Hunting in Central Montana.*

11:40 Sheila Macdonald, (M.A. candidate, University of Lethbridge). *New Opportunities to Examine Ethridge Pottery Ware from Sites on the Northwestern Plains.*

12:00 Lunch

1:00 Brian Vivian and Janet Blakey, (Lifeways of Canada Limited). *Wintering on Pigeon Lake and the Evidence for Fish and Furs at FgPm-05.*

1:20 Nancy Saxberg and Amanda Dow, (AMEC Environment & Infrastructure). *Results of 2012 Excavations at Fort Augustus/Edmonton House.*

1:40 Brian Reeves, Professor Emeritus, (University of Calgary) **and Margaret Kennedy, Associate Professor**, (University of Saskatchewan). *Naming the Stones: Rediscovering 19th Century Niitsitapi Place Names in the Bow-Red Deer Rivers Grasslands.*

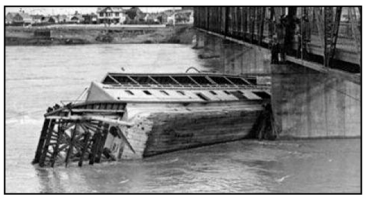
2:30 Dean Wetzel, Land Use Planner, Archaeological Survey, *Stone Alignments Revisited*

2:50 Coffee Break

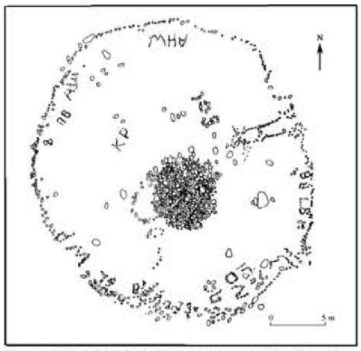
3:15 AGM

Saturday Evening, May 11th 5:30 – 6:30 Cocktails, cash bar, 6:30 Banquet, Medicine Hat College

Banquet Speaker: Leslie J. (Butch) Amundson, M.A., RPA (Principal/Senior Archaeologist Stantec Consulting Ltd.) *The Wreck of the S.S. Medicine Hat*



SS "CITY OF MEDICINE HAT"
Wrecked at Saskatoon June 7, 1908
Photo courtesy of Saskatoon Public Library, Local History Room



Plan map of EdOp-1, British Block, Subgroup 1 medicine wheel (from Walde 1976)

ASA 2013 CONFERENCE FIELD TRIP DETAILS.

Sunday Morning, May 12. Bus tour to the British Block Medicine Wheel, EdOp 1, located on the Suffield Military Reserve.

This is one of the oldest and largest Medicine Wheels in Alberta and visiting it is a rare opportunity. A Napi figure, 51 stone circles and an alignment are associated with this feature.

Due to CFB Suffield security requirements pre-registration is required with name and affiliation. Photo id will be required at the gate. *All participants must be on our list by May 6th.*

Limited seating, please register early with contact information (email or phone Janice) so that we can notify you of any changes. Due to possibility of cancellation due to bad weather the tour fee will not be collected until Friday evening (May 10). An alternate field trip to the Medalta National Historic Site and IXL brick plant, ($10), will be available if the field tour is cancelled.

Name(s) _____
(These names will be on your Conference Tags)

Centre Affiliation _____

Address _____

Phone _____ Email _____

Full Registration ($50) x _____ (# attending) = $_____ ***OR***

Session Only ($20) x _____ = $_____ Banquet Only ($30) x _____ = $_____

Field Trip - YES x _____ (this is for Lunch Numbers, As above, contact Janice to be on the list)

Please make Cheques payable to
South Eastern Alberta Archaeological Society
or SEAAS c/o Phyllis McLaughlin.

Archaeological
Society of Alberta
38th Annual
Conference and AGM

Addition to Archaeological Newsletter Issue No. 2: February & March 2013:

Citations within the article by Gilliland and Gibson were unintentionally left out, and should have included the following:

Aitken, M., 1998. *An Introduction to Optical Dating*, Oxford University Press, Oxford.

Sanderson, D.C.W., Murphy, S., 2010. Using simple portable OSL measurements and laboratory characterisation to help understand complex and heterogeneous sediment sequences for luminescence dating, *Quaternary Geochronology* 5, 299-305.

ARCHAEOLOGICAL NEWSLETTER

Issue No 4: June & July 2013

ARCHAEOLOGICAL SOCIETY OF ALBERTA

Promontory Caves, Utah: Holy! It's Totally Hafted!

by Courtney Lakevold (M.A. Candidate), Reid Graham (M.A. Candidate), Aileen Reilly (M.A. Candidate) and Jennifer Hallson (B.A. Honours Student)

Institute of Prairie Archaeology, Department of Anthropology, University of Alberta

May was an exciting month for the members of the Institute of Prairie Archaeology (IPA) based in the Department of Anthropology at the University of Alberta. One of IPA's key activities is a Social Sciences and Humanities Research Council of Canada funded project under the direction of Dr. Jack Ives, involving interdisciplinary researchers from the University of Alberta, Oxford University, Brigham Young University (BYU), the Natural History Museum of Utah, Weber State University and the Desert Research Institute of Nevada. Entitled "Apachean Origins: New Explorations of the Canadian Heritage of A. D. 13th Century Dene at Promontory Point," this research involves excavation of dry caves with incredible preservation along the shores of Great Salt Lake.

As archaeologists from Alberta, the first thing we needed to do was learn the ropes of archaeology in Utah. Utah has a standard recording system, called the Feature System, developed by Dr. Jesse Jennings, a giant figure in 20th century Great Basin archaeology. Word on the street is that Dr. Jennings was a no-nonsense kind of guy who did not even allow talking while excavating. Luckily we had some very good teachers (Professor Emeritus Joel Janetski, Katie Richards and Lindsay Johannson from Brigham Young University). In this system, the term "feature" is used very broadly and can be assigned to anything that might require description, such as a geographic area, an excavation area, a trench, a single unit, a depression, a stratigraphic layer or any other distinct cultural or natural phenomenon that is part of the site. It is more common in Alberta to excavate using arbitrary 5cm or 10cm levels. When excavation of a unit is complete a stratigraphic profile is drawn and distinct cultural and natural layers are identified. Alternatively, in the feature system, it is important to identify the strata as excavation is taking place. When a change in the cultural deposits or natural sediment is noted, a new feature number and level is assigned to that layer. While arbitrary levels can be still be

used with this system, it is much more common to excavate using natural levels.

In addition to getting used to a new recording system we also had to adapt to a completely different kind of archaeology than any of us had previously experienced. The first aspect of this new experience was digging in a cave environment that offers incredible preservation. The second aspect of this was very complicated stratigraphy in both caves. The project has amassed more than 60 AMS radiocarbon dates so that we know that the thick Promontory Phase deposits in Cave 1 likely accumulated in just 20-50 years of occupation. The deposits are dense enough in some places that we have yet to find the bottom. Everything is so well preserved that sometimes we would come across faunal remains that still had hide and fur attached to them. It appeared as though the animal had died no more recently than the cow we had to hike by to get to the site every day!

Previous excavations in Cave 1 were carried out by Julian Steward in the 1930s, and in 2010 and 2011 by Dr. Ives of the IPA and various project members. These excavations yielded incredible finds including moccasins, arrowshafts, mats, ceramics, hafted scrapers and arrows, hide, leather, cordage, and lithic and faunal remains, all dating to ca. A.D. 1250-1300. It was a bit nerve racking pulling back the thick compact layers of juniper bark that were laid down as bedding and matting, as it was very easy to damage any of the organic artifacts. After a while though we got accustomed to the deposits and soon enough amazing artifacts started to appear. Like the previous excavations, moccasins were common as well as fragments of basketry and mats, porcupine quills used for decoration on clothing, and arrowheads still hafted to the foreshaft (Figures 1 and 2). There were numerous ceramic sherds, scraps of discarded leather and hide, and plenty of faunal remains scattered throughout the caves and in the excavations. Lithics on the other hand, were not nearly as common, only showing up as small waste flakes and the occasional formed tool.

Figure 1. Arrowhead still hafted to the foreshaft.

Archaeologists seldom find sites like this, and definitely not in Alberta, where preservation is usually relatively poor, especially in the boreal forest. Needless to say we were all thrilled with the experience and most of the time simply couldn't believe what we were finding —a dream come true! We closed out the excavation, having made significant progress but did not reach the bottom of the Promontory Phase deposits in the cave. When we closed the units, we had spent the last few days working on a dense faunal bone bed (mainly bison), that was still yielding a large number of artifacts. All in all, it was an incredible experience and with any luck we will get the chance to go back and try to reach the bottom of the Promontory deposits in Cave 1.

Dr. Janetski also carried out further excavations at Cave 2, which is smaller and down slope from Cave 1. This cave had

Promontory Phase deposits as well, but also deeper deposits stretching farther into prehistory. Previous excavation by Steward in the 1930s showcased the breadth of the materials, but failed to capture the full depth of the site. When returning in 2011, Dr. Janetski and Lindsay Johannson attempted to redefine Steward's stratigraphy by excavating a small 1m by 50cm unit into the wall of Steward's trench. They quickly found that the cave deposits were much deeper than Steward indicated. At almost 3 meters deep, initial radiocarbon dates indicate that there is an Early Archaic occupation of Cave 2, and possibly an underlying Paleoindian component. The amazing preservation seen in Cave 1 is limited to the top portion of the deposits in Cave 2, but we still found remarkable artifacts. This included a complete bone needle in the deep, earlier deposits. Dr. Janetski, who follows the Dr. Jesse Jennings style of excavation (in other words, no getting excited about artifacts), actually cracked a smile. It was an incredible end to excavations at this equally amazing site.

However, it was not only the sites that were amazing. The landscape is something to remember for a lifetime. We were treated to epic sunsets over the Great Salt Lake every evening, a stunning view from both the cave and our camp and an array of wildlife including frequent rattlesnakes and many types of lizards. There were also a great many different birds, including ravens, pigeons, and turkey vultures who liked to circle us on very hot days. In addition to the wildlife there were also, the not so wild, cattle (who invaded our camp) and sheep (who sometimes need help keeping lambs with mothers). Like every good archaeological project, it is the people who make it or break it. We were fortunate enough to have a fantastic, hard-working, musically talented, porta-potty stirring, and iron chef worthy crew. We are all deeply indebted to George and Kumeroa Chournos, the landowners who have protected the caves since Steward's era, and who worked with us every day during our excavations.

Figure 2. A fragment of basketry.

While we may not have sites like this to work on in Alberta, the experience we gained is invaluable and the things we seen have provided us a glimpse into past lifeways that we can apply to all sites for the rest of our careers. We finished off our trip to Utah with time spent at the museums in Provo and Salt Lake City. The Natural History Museum of Utah in Salt Lake City was opened in a new and beautiful facility in November of 2011. If you would like to get a look at the Promontory Collection, the museum has some of the artifacts on display as well as many other interesting and interactive exhibits. Definitely worth a visit!

You can see more about the Natural History Museum of Utah and the Institute of Prairie Archaeology at these web sites:

http://www.nhmu.utah.edu/

http://www.anthropology.ualberta.ca/en/The-Institute-of-Prairie-Archaeology.aspx

2013 ASA Distinguished Service Award: Awarded to Janice Andreas!

The South Eastern Alberta Archaeological Society of Medicine Hat hosted the Archaeological Society of Alberta's 38th Annual Conference and AGM on May 10-12, 2013. It was a huge success with over one hundred participants. President of the South Eastern Alberta Archaeological Society, Janice Andreas, was honoured with the Society's Distinguished Service Award in recognition of her many years of dedication to the local society and to the provincial body. Congratulations Janice!

Photo by James Marshall.

The Distinguished Service Award is granted to an individual(s) who has provided a distinguished, long-term record of services to their local centre of the Society, participated in the provincial level of the Society, contributed to the discipline of archaeology in the province, increased awareness and/or education on public issues of archaeology, and contributed to the promotion of the Society.

March 2013 Calgary Lithics Workshop - Review

by Kai Sunderland, ASA Calgary Centre

Over the weekend of March 9th and 10th, a classroom in the University of Calgary's Department of Archaeology was filled with enthusiastic flintknappers and tool manufacturers. The two-day flintknapping workshop was led by Tim Rast and Jason Roe. This is the second consecutive year that the popular workshop has been offered using this format.

On Saturday – the first day of the workshop – the instructors provided an introduction to a packed classroom about the basics of flintknapping. They discussed hard hammer and soft hammer percussion as well as pressure flaking techniques. They then provided the workshop participants with materials and time to try the methods for themselves. The careful guidance of the very knowledgeable instructors meant that Saturday's portion of the workshop was an

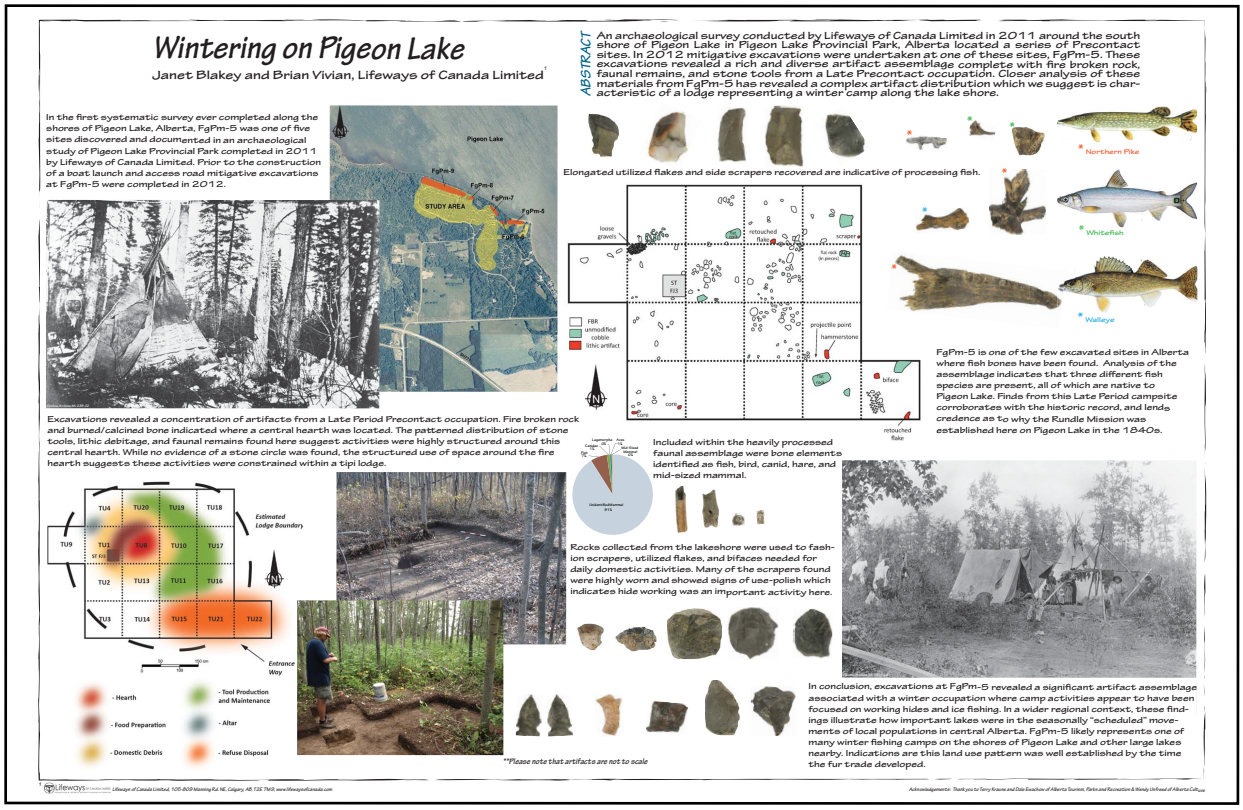
ideal opportunity for novice flintknappers – including your correspondent – to get a hands-on impression of the procedures and skill required to create stone tools. The first day was not just for the beginners, though, as it also offered the more-experienced flintknappers a chance to practice their technique and to receive feedback from fellow enthusiasts.

Sunday March 10th, the second day of the workshop, was organised as a “knap-in”. Day two offered the workshop participants an opportunity to try a variety of special projects. These special projects included the manufacture of metal points from old copper piping and barrel hoops, opportunities to try hafting points or flakes to shafts, instructions on the manufacture of arrows, learning about and using glues and mastics, ochre grinding, as well as interactive demonstrations of pressure flaking reduction strategies. Mastic of spruce gum and red ochre was prepared to be used for hafting many of the points created by participants during the course of the workshop.

The success of this workshop was due to the fantastic work and commitment of many individuals. Gratitude is owed to Mike Turney for organising and administrating the workshop. As well, thanks are due to Pete Truch for looking after lunch, snacks, and coffee during the event. In particular, however, special thanks are due to the fantastic instructors, Jason Roe and Tim Rast, who made the workshop an enlightening and exciting experience for all the participants.

2013 Association of Consulting Archaeologists (ACA) Poster Award

Janet Blakey and Brian Vivian of Lifeways of Canada Limited, were awarded the 2013 ACA Poster Award for their poster titled: “Wintering on Pigeon Lake.” This award was announced at the ASA 38th Annual Conference and AGM on May 10-12, 2013. The ACA Poster Award is a $200 cash award for the best poster (judged by the public) at the ASA Annual Conference.



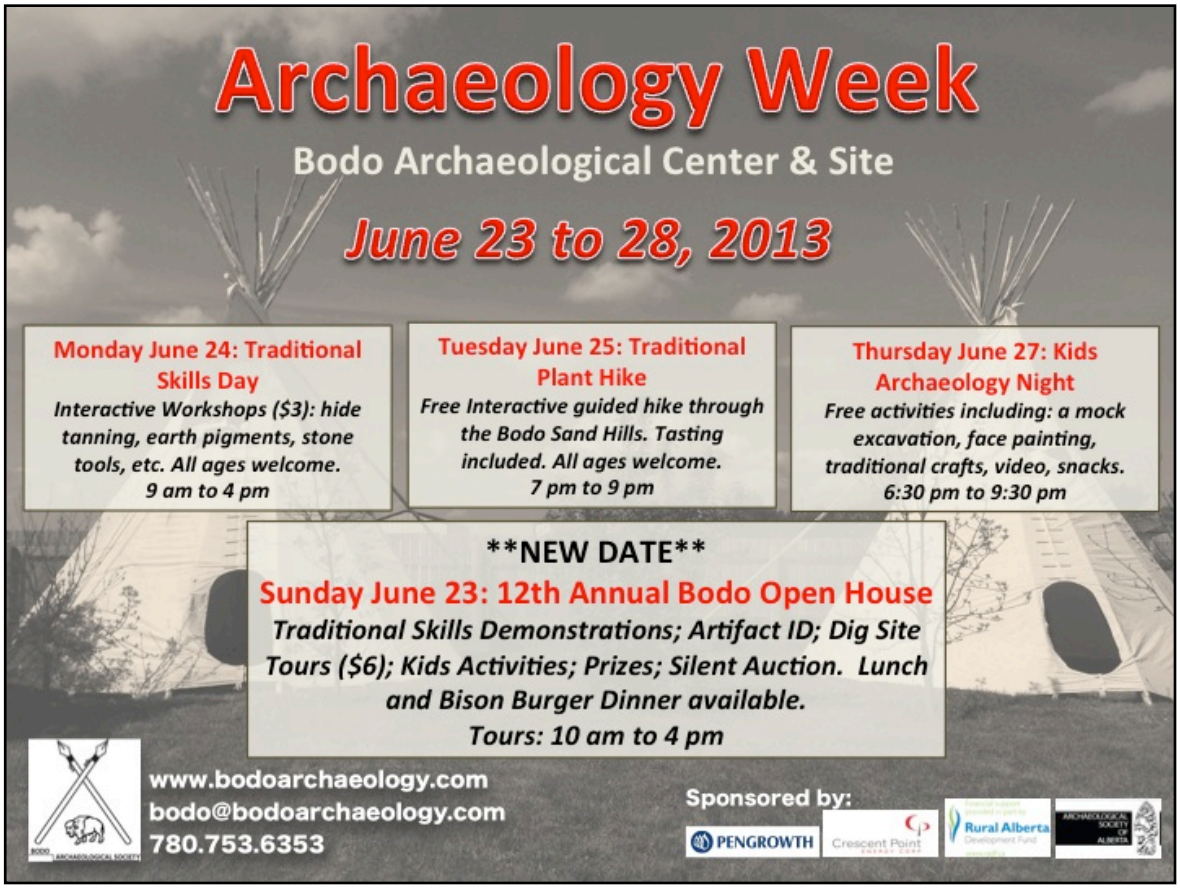
Archaeology School Tours in Bodo

by Tanya Chiynowski, Bodo Archaeological Society

The Bodo Archaeology Centre (located 20 minutes south of Provost, AB) is almost completely booked with school tours for the month of June. From kindergarten through grade twelve, students participate in activities such as flint knapping, mock excavations, laboratory work, site tours and traditional plant use. The Bodo Archaeological Site is located within a series of sandy hills, which contains kill sites and campsites occupied for thousands of years. Using open excavations at the site and artifacts recovered during excavations students learn the importance of archaeological context, the many disciplines that contribute to archaeological knowledge and the rich heritage of the province.

Given the number of potential activities, more and more classes are camping overnight in the tipis and getting additions experiences such as trying traditional foods including Saskatoon berries, pemmican and bannock. In the month of June the Bodo Archaeological Centre will welcome nine different school groups, giving nearly 200 students hands on archaeological experience. Teachers have observed previously disinterested students eagerly handling artifacts and showing an interest in the previously dreaded 'social' topics.

In addition to the benefits for students and teachers, this is a rewarding experience for the summer students and project archaeologist Christie Grekul. As a graduate student, answering 'Why does archaeology matter?', is relevant to my goals as a future instructor. Making archaeology pertinent and justifying public funding of heritage programs is creating a new generation of citizens informed about the potential of history. While highly energetic, the enthusiasm shown by the students is a reminder that I really do have the coolest job ever!



ARCHAEOLOGICAL NEWSLETTER

Issue No 5: August & September 2013

ARCHAEOLOGICAL SOCIETY OF ALBERTA

Sanisera Archaeological Field School: Underwater Archaeology

by Elenore Hood & Vincent Jankunis, Tree Time Services Inc.

Slipping into thick, full-length wetsuits still wet from the previous day's dive is not the most enjoyable experience first thing in the morning. But once the bulky gear is on, usually with some help in the form of physical contact which in other social situations may be considered a little too friendly, we are plodding down the rocks and beach to our dive site. Once you have recovered from the first splash of cold water and you slip below the waves the fun begins. This morning scene is one we were lucky to be a part of at the port of Sanitja this past April when we travelled to the island of Menorca, Spain, to participate in the underwater component of the Sanisera archaeological field school.

Menorca, the northernmost of the Balearic Islands, is located approximately 250 km off of the east coast of Spain. The island measures only 50 x 20 km but throughout recorded history has played a pivotal role due to its strategic location. The first habitants are thought to have island hopped from the Iberian Peninsula around 2500 B.C. This group is now called the Talayotic people, a name derived from the megalithic table-like structures still standing today. Not much is known about life on Menorca until the Iberian Peninsula became part of the Roman Empire and trade routes were established. The island was initially taken by the Romans to stem attacks on their trade vessels and was then fully conquered by 121 B.C.

During the Roman occupation of the island there were three main natural ports in use: on the west coast where modern day Ciutadella is, on the East coast where the city of Mahon is now located, and on the north coast at the port of Sanitja protected by Cape Cavalleria. The oldest known Roman occupation at the port of Sanitja is a military fort located at the mouth of a small stream that empties into the port established in 123 B.C. It has been fully excavated with such excellent preservation that the concrete lining the insides of wall cavities used for liquid storage can still be seen.

During the occupation of the Roman fort the Talayotic people were also a presence in the area. They were considered to be fierce warriors, especially skilled with sling shots, and were often hired by the Romans as mercenaries. A city and necropolis soon followed in the 1st century B.C. on the west side of the fresh water stream. The Port Sanitja continued to be occupied after the fall of the Roman Empire evident by excavated graves dated to the 6th century A.D., but it is difficult to trace the origins of the population and not much is known of the area from the 5th to 10th centuries. A subsequent Muslim occupation is also evidenced by the presence of a mosque, the first found in the Balearic Islands. Evidence of later cultural activities however, is present when you first arrive at the site. Five hundred meters north of the excavation of Sanisera there is a very large and thick watchtower built in 1800; one of eleven built along the entire coast of the island. It is a reminder of the turbulent 18th and 19th centuries when the island was ruled by the French, Spanish, and English at one time or another. Finally, if you look farther north you will see one of the first modern day lighthouses built in 1857 on the point of the cape. Being able to stand in this port and see the evidence of human life spanning two thousand years is not one we often get to experience in the Boreal forest of central and northern Alberta where we work.

At first glance the archaeological survey we took part in at the Sanisera field school seems very different from that done in Alberta. Yes, it is all done underwater but the basic principles were the same as used in an area with good exposure on land. One person would un-spool a rope with knots tied at 10 m intervals. Then it was our job to spread out at 5 or 10 m and slowly transect the seafloor looking for artefacts. To keep even spacing while slowly moving forward was difficult at times particularly when the sea floor would

View north of Port Sanitja from the Roman city of Sanisera.

rise and fall, often varying by many metres. Like exposure survey on land sight was the best tool for artefact identification. However, while under water one advantage was the ability to hover three to five metres above the bottom for a better view of the sea floor which was often covered in sea grass. But, like on land, sometimes it was best to get your face close to the action feeling for anything out of the norm within the vegetation.

Primarily we found fragments of amphorae, the versatile terracotta containers used to transport goods during the Roman era. These common artefacts are prevalent in the water and on the nearby beaches. They originate from the Roman trade ships which would carry hundreds of amphorae stacked on top of each other sometimes three rows high and packed securely with wood shavings.

Researchers are most interested in rims, bases, and handles. With these diagnostic pieces they can identify where the pottery was produced and give it an approximate age from typologies produced from historical studies. During our underwater surveys we were lucky enough to locate these diagnostics (mostly bases) and with practice begin to piece together a timeline of the area we were working in.

Not all the fun was going on underwater. While we were at Sanisera there were also two other groups excavating turf-side. One group was working on the Roman city, trying to locate additional buildings and recover artefacts and the other group was working in necropolis 6, associated with the late occupation of the Roman city, locating additional tombs and excavating multi-individual burials identified during a previous year's expedition. One of the advantages of working underwater, however, is that when you find amphorae it is in much larger sherds and some from the underwater site are nearly complete!

Vince Sketching an amphorae.

One of the most interesting finds came, as they usually do, on one of our last days. Records from the government listed approximate locations for anchors discovered by recreational divers in the port. Our goal, to better the chronology of the area, was to relocate, photograph, assign a more accurate location, and classify if possible the previously found anchors. We un-spooled the rope and began our linear survey. Near the end of the transect, when air was running low, I spotted what looked like garbage attached to a rock. The rock looked unnatural, though, so I swam over to investigate. The garbage turned out to be a scuba mask left by recreational divers with keen eyes, who had evidently noticed the abnormal rock was actually part of a Roman Republican anchor which had over time concreted to the rock on the sea floor. It was an exhilarating find and an amazing experience we won't soon forget.

Now back in Alberta while we prepare for work by sporting bug jackets instead of wetsuits. We don't have to be cautious of air levels and are more worried about mosquitoes than jellyfish. But when discussing the differences between the archaeological record of the Mediterranean and western Canada there is one thing we both agree on. The archaeology may not be as obvious as a watchtower, Roman walls, and smashed amphorae but the human history is here to uncover and that is exciting to us.

2014 ASA Awards

The ASA has established two awards that may be awarded each year to recognize the work of an individual(s). Winners of these awards are honoured during the ASA annual general meeting.

Distinguished Service Award

The Distinguished Service Award is granted to an individual(s) who has provided a distinguished, long-term record of services to their local centre of the Society, participated in the provincial level of the society, contributed to the discipline of archaeology in the province, increased awareness and/or education on public issues of archaeology, and contributed to the promotion of the Society.

Johan (John) Dormaar Award

The John Dormaar Award is granted to an individual who, through production of a substantive piece of written work, has significantly advanced the understanding and appreciation of Alberta archaeology and related disciplines.

For more information on either of these awards or to nominate someone, please contact Jim McMurchy at jnemc@telus.net

Bodo Archaeology Centre gets "National" Press

by Andrea Karchewski & Tanya Chiykowski, Bodo Archaeological Centre staff

From July 17th to July 18th the Bodo Archaeology Centre played host to a *National Post* journalist and her photographer husband, thanks in large part to the coordination and cooperation of Travel Alberta. They partook in the Centre's *Ultimate Archaeology Experience*, providing them with two days of exposure to the Bodo Archaeology Site, Centre, and surrounding area. It also offered them the opportunity to participate in the excavation of Area 5 under the supervision of the project archaeologist, Christie Grekul. While excavating they uncovered numerous bison bone fragments and stone tools, which are part of the remains of a 500-year-old large communal bison kill site.

In addition to participating in the excavations at Area 5, the guests were treated to a public talk by Bruce Cutknife, Head of Cree Studies at Maskwachees Cultural College in Alberta, and member of the Samson Cree First Nation in Hobbema. The talk was centered around

Jakub (right) excavating at the Bodo Archaeological Site with volunteer archaeologist, Peter Kirchmeir (left).

Tamara flint knapping and making a stone arrowhead.

the history, impact, and continuing influence of the Residential schools in Canada, with a focus on those schools located within Alberta.

As part of their *Ultimate Archaeology Experience*, they also visited the nearby ancient bison rubbing stone, learnt to make their own stone arrowheads, and spent a morning at a bison ranch near Wainwright, Alberta, where they had the opportunity to get up close with these large majestic animals. The Travel Alberta guests were given the opportunity to spend their nights camped in one of the tipis located in Bodo. They were also treated to some delicious home-cooking, including sweet-and-sour bison meatballs, fried bannock, and fresh Saskatoon berry crisp.

As a result of the success of this venture, the Bodo Archaeology Centre will be welcoming a writer and photographer from Canadian Geographic magazine this coming August.

Barry Kaye (left) showingTamara (right) a bison robe at the Kaye Woods Bison Ranch near Wainwright, AB.

ARCHAEOLOGICAL NEWSLETTER

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ARCHAEOLOGICAL SOCIETY OF ALBERTA

ASA Field Trip to East Central Alberta

by Christie Grekul, Bodo Archaeological Society & Matthew Moors, Stantec

On September 21, 2013 Archaeological Society of Alberta members from Strathcona and Bodo enjoyed a great field trip to east central Alberta. First stop was at a large site complex near Hardisty, Alberta currently being excavated by the archaeological staff from Stantec, Calgary.

Stantec is excavating the processing area and campsite (FdOt-32) associated with the Hardisty Bison Pound (FdOt-31) excavated previously. FdOt-31 was discovered in 2008 and excavation of 40 square meters proceeded during the 2008 and 2009 field seasons. During the course of the mitigation several thousand bison bone were recovered in addition to numerous Avonlea projectile points, scrapers and other tools. There were also two bone features that were interpreted to be posts for the entrance to the pound. The Hardisty Bison Pound dates to approximately 1000 years ago. The site also had a second component containing a Country Hills Projectile Point.

Field trip participants pose for a group photo after the site tour.

One of many projectile points recovered from the site this summer.

Site FdOt-32 is the processing area and campsite associated with the Hardisty Bison Pound. It was discovered in 2009 and excavations of 120 square meters occurred during the 2009 field season and approximately 600 square meters during the 2013 field season. Several thousand bison bone were recovered in addition Avonlea projectile points, Avonlea pottery, as well as other tools. Approximately 30 features were recored, mostly comprising hearths and boiling pits, but also including a roasting pit, bone uprights, and a ochre stain. Radiocarbon dates from FdOt-32 overlap with those from FdOt-31.

Matthew Moors, the project archaeologist, and his excavation crew graciously took the time to show the 21 members from the ASA around the site and the excavation areas, as well as show off some of the artifacts recovered so far this summer.

After the tour, the group headed to the banks of the Battle River to enjoy a picnic lunch. Following that people who were interested headed north to visit the Viking Ribstones.

Matthew Moors showing everyone around the partially excavated bison processing site and campsite.

Jess (green shirt) and Paige (black shirt) get some hands on instruction on bison bone identification by archaeologist, Jennifer Gainer.

South Eastern Alberta Archaeological Society Update

by Janice Andreas, South Eastern Alberta Archaeological Society

Hello from the South Eastern Alberta Archaeological Society (Medicine Hat). We had high hopes of doing some interesting things this summer after having such a good time during our conference and visit to the British Block Cairn. The summer started well with a June 19th field trip to the Suffield Medicine Wheel. Now you know what happened in the next few days –" The flood!" Somehow it threw the whole summer askew and we didn't get out again until the September long weekend. There weren't many of us but we had a great time. We visited the Great Sand Hills, the Mud Buttes near Monitor. We also had an enjoyable and instructive time with Vern and Helen Johnson of Oyen who are so very knowledgeable about their area and have an amazing collection of artifacts.

On September 22 members and college instructor, Cathy Linowski, tutored us in GPS technology as we tried to locate a site in an area of native grassland overlooking the South Saskatchewan River within city limits. We knew we should find both rings and cairns and evidence of test pits. With a sketch map and a fair bit of trudging we finally oriented ourselves, found the features and used our GPS(s) to note the UTM locations. Talk about team work! The grass was thick and long and reading the prairie from a line drawing was a little more difficult than we anticipated but thanks to Cathy's immense patience we figured it out. It was so much fun! Cathy is also an expert in plant identification and she was generous with her knowledge. Although some rare prairie plants have been found here we weren't the ones who found them. (We had enough trouble finding the stone circles!) This is one project we should definitely repeat.

Coming events:

October 9th (Yes, for this one time it is not the 3rd Wednesday), meet at 6 p.m. at the front entrance of Medalta Potteries. At 6:30 we'll move to the IXL plant. Dress warmly. On June 24th, 2013 flood waters entered the Medalta Potteries and the Medicine Hat Brick and Tile Co. It impacted many archaeological excavations that are on display at this National Heritage Site. Talva Jacobson, site archaeologist, will lead us on a tour of the site and discuss the damage that occurred, types of issues re: protected industrial remains and long term solutions. She says that a surprising aspect of this kind of project is learning how to work with other specialists who have been included in reconstruction and stabilization processes.

November 20th 7 p.m. Meetings resume at the Police Point Interpretive Centre. Lindsay Amundsen-Meyer will speak on *Nested Landscapes: Ecological and Spiritual Use of Plains Landscape during the Late Prehistoric.* The 2014 January – April events are almost all finalized. Stay tuned and don't hesitate to call or email me if you'd like more info. Have a great autumn.

Please direct comments or questions to:
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CANQUA-CGRG 2013 in Edmonton one of the best attended ever!

by Krista Gilliland, Western Heritage

The joint Canadian Quaternary Association (CANQUA) and Canadian Geomorphology Research Group (CGRG) meeting was held in Edmonton, Alberta between August 19-22. The meeting was a huge success, with over 200 papers and posters on various aspects of the Quaternary Period (the geological time period spanning the past approximately 2.6 million years). Special sessions covered topics such as tephrostratigraphy (using volcanic tephras as stratigraphic markers), the palaeoecology of extreme environments, paleolimnology (using lake sediment records to investigate environmental change), mapping and dating the Quaternary, the work of Arctic researcher John England, subglacial

processes, ice sheet hydrology, stable isotopes, the vertebrate fossil record, cold regions processes, and applied, aeolian, and coastal geomorphology. Of particular interest to archaeologists were sessions on the ice-free corridor, the contributions of cultural resource management studies in increasing understandings of the Quaternary, and geoarchaeology.

In *The Ice-free corridor connecting North to South for 2 million years - almost never closed? Records of gene flow and paleoenvironments*, chaired by Charles Schweger (University of Alberta) and Beth Shapiro (University of California, Santa Cruz), invited speaker Jack Ives (University of Alberta) presented on natural and social landscapes as related to the early archaeological record of the ice-free corridor. Mikkel Winther Pederson (University of Copenhagen) and colleagues presented their paleo-ecologial and DNA work, and Marten Geertsema (BC Forest Service) and colleagues presented radiocarbon data as related to ice cover in the Fort St. John area. Gabriel Yanicki (University of Alberta) and Jack Ives discussed fluted point reshaping strategies, and Lacey S. Fleming (University of Alberta) and Jack Ives presented work on Palaeoindian bird and egg exploitation.

In New insights into the Quaternary and historical past from Resource Management Studies), chaired by Robin Woywitka (Archaeological Survey of Alberta) and Nancy Saxberg (AMEC Environment & Infrastructure), invited speaker Brian Ronaghan (Archaeological Survey of Alberta) discussed the impacts of oil sands development on archaeological resources. Robin Woywitka (Archaeological Survey of Alberta) and colleagues discussed archaeological sites in the oil sands region, Michael Turney (Golder Associates) talked about the Quarry of the Ancestors in northeastern Alberta, and Darryl Bereziuk (Archaeological Survey of Alberta) presented on pre-contact stone quarries in the Swan Hills region. Aidan Burford (AMEC Environment & Infrastructure) discussed early Holocene occupation in the northern interior BC region, Lisa Bohach (Stantec Consulting) and colleagues examined early Holocene fossils of the Sturgeon River valley, Reid Graham and Jack Ives (University of Alberta) presented new information from the Muhlbach and Stelzer sites in central Alberta, and Petr Kurzybov and Krista Gilliland (Western Heritage) discussed new geoarchaeological

Field trip to the Fort McMurray region: Discussing stratigraphy and geomorphology at the side of the road.

Field trip to the Fort McMurray region: Robin Woywitka discussing geomorphology and human occupation of the landscape at the Quarry of the Ancestors site, northeastern Alberta.

Field trip to the Fort McMurray region: The warm August sun melted bitumen-rich deposits at the Bitumount Provincial Historic Site.

methods being used in cultural resource management projects in Alberta and Ontario.

In *Geoarchaeology: From Small Scale to the Big Picture*, chaired by Krista Gilliland (Western Heritage), Loren Davis (Oregon State University), and Alwynne Beaudoin (Royal Alberta Museum), invited speaker Rolfe Mandel (University of Kansas) discussed the role of soils and geomorphology in locating stratified Palaeoindian deposits in the central Great Plains region. Kathryn De Rego (University of British Columbia) and Russell Stafford (Indiana State University) discussed Holocene floodplain development along the lower Ohio River, Indiana, and Elizabeth Robertson and Lauren Stead (University of Saskatchewan) presented their palaeoenvironmental work at the Red Tail site in central Saskatchewan. Paul Adderley (University of Stirling) and Krista Gilliland discussed their geoarchaeological work at the Hodder site in Ontario, Loren Davis (Oregon State University) presented on the application of portable x-ray fluorescence at the Cooper's Ferry Site in Idaho, and Ken Munyikwa (Athabasca University) and colleagues introduced their work on portable optically-stimulated luminescence at the Bodo Archaeological Locality in southeastern Alberta. The final presenter was David Lowe (University of Waikato), who discussed using tephrochronology as a means of dating the earliest Polynesian settlement of New Zealand.

Field trips are frequently the most anticipated portion of a conference, and the 2013 CANQUA-CGRG meeting did not disappoint, with four field trips to choose from. The first two trips preceded the conference: a trip focusing on Quaternary landscapes from Edmonton to Jasper and the Athabasca Glacier, led by Nat Rutter (University of Alberta) and Dan Utting (Alberta Geological Survey), and an excursion to southern Alberta to discuss the geomorphology of palaeo-ice streams, led by David Evans (Durham University) and Mark Furze (MacEwan University).

The two field trips that took place following the conference were: a trip to the Fort McMurray

Field trip to the Fort McMurray region: The boathouse that is the resting place of the iconic Golden Slipper at the Bitumount Provincial Historic site.

Chacmool 2013

The Archaeology of Interaction, Migration and Exchange

University of Calgary, Alberta, Canada

November 7-9, 2013

The Chacmool Conference this year is focused on the understanding of cultures worldwide and across time through interpretation and context of the movement of people, materials and ideas. The theme allows for exploration of topics such as conflict and interaction spheres, landscape archaeology, trade, and of course, interaction, migration, and exchange. The interaction, migration, and the exchange of goods and ideas between people have been an effective adaptive strategy as well as being an integral part of human civilization, from hunter-gatherer groups to the metropolises that dot the globe today. These are undeniably important topics for future and current consideration in archaeology.

For more information visit the Chacmool website: http://arky.ucalgary.ca/chacmool2013/

region of northern Alberta, focusing on the stratigraphy of the Clearwater-Athabasca spillway and the geoarchaeology of the Oilsands region, led by Duane Froese (University of Alberta), Robin Woywitka (Archaeological Survey of Alberta/University of Alberta), and Nigel Atkinson (Alberta Geological Survey), and a day-long excursion around the Edmonton region discussing landscape, palaeoenvironments, archaeology, and fur trade history, led by Alwynne Beaudoin and Chris Jass (Royal Alberta Museum), and Heinz Pyszczyk (Archaeological Survey of Alberta).

Field trip to the Fort McMurray region: Excitement and interest surrounding the stratigraphy recorded in a gravel pit.

Congratulations to all who participated in this event, and thank you for making it such a success!

Please direct comments or questions to:
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