Notes From The SA

The Sustainable Archaeology Newsletter

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Sustainable Archaeology: Western’s ability to generate informative and detailed images has greatly improved in 2015. Our microCT is busy capturing images in our Ancient Images Lab. Figure 1 and 2 are some of the most exciting scans to date. The first is a Babylonian clay tablet that, when scanned, revealed an inner tablet with Cuneiform writing that can be isolated for translation. The second is a ceramic lamp from the Canadian Arctic manufactured from both fired and unfired clays.

Kayley Sherret, a student in Dr. Ferris’s UWO Digital Archaeology course, has been working with the 3D scanners. Light-colored, matte materials create better images than their darker equivalents, evident in Figure 3. Kayley has experimented mediating this issue by either coating the object in a powder, or hand correcting the scans through image editing software. Figure 3 are 3D scans of 17th C. Jesuit Rings. Despite the left ring’s excellent condition, the ring on the right scanned more clearly and required less post-processing enhancement because it is not as dark or shiny as the one on the left.

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Update from SA McMaster

Our on-going work processing McMaster’s legacy collections is progressing and is now focused on material that requires research to determine or clarify provenience. Recently accessed artifact catalogues for the early 20th century collections of E. J. Case, Rutherford Smith, and Frank and A. E. Wood have allowed us to re-associate many artifacts with the site, farm, township or county where they were found. These original records also include details about site visits dating to the 1920s and 1930s, many in the Hamilton and Niagara regions.

Our efforts to make McMaster’s collections more accessible to the public include a display currently in the McMaster Innovation Park (MIP) atrium. Artifacts excavated in the 1970s from the Mannen Site (AhHb-6) were selected to highlight the range of material found through archaeological excavation in the area. SA McMaster also participated in the 1st Annual Researchers’ Night at MIP in October. The evening, modelled after a popular event held at universities across France, included a range of researchers from McMaster and had a great turn out. We took the opportunity to display and answer questions about artifacts from several sites from the Hamilton area as well as examples of thin sections in various stages of preparation and analysis.

A new polarizing microscope in our dry lab has greatly expanded our capabilities in the analysis of the mineral content of a range of archaeological materials. We are breaking in the new microscope by taking images of thin sections of ceramic, chert, and tooth samples. A note of thanks to the hunters from Howe Island, Ontario and volunteers from the archaeology lab on campus for their assistance in creating our reference sample of teeth from deer of known date of death as we test the capabilities of determining season of death. We look forward to sharing the images we capture as we move forward.
**Update from SA: Western**

**Personnel**

The autumn months brought a significant turn-over in SA personnel. We welcomed Alex Ray and Katie Singer to help with Digital Collections Management. Dr. Jennifer Morgan returned to our Ancient Images Lab as our micro-CT Digital Imaging Technician. This winter we have also welcomed two UWO work study students, Connor and Kayley, who have helped research and digitize associated records and assist in collection processing.

**Collections**

As of January, SA has been accepting collections. The majority of the collections already transferred are Legacy Collections, however, with the 2015 field season commencing, we expect an influx of Anticipatory Collections.

**Equipment**

Since our last newsletter, we have obtained a Nikon SMZ25 Research Stereo Microscope complete with Camera Control Unit. This equipment can be used for all sorts of micro-analysis and imaging including use-wear analysis on lithic and glass artifacts, floral identification and speciation of small faunal remains such as fish scales. We also added a videoconferencing station to our always popular Collaboration Room allowing this meeting space to connect to outside contributors in a personal way using large video monitors, Vidyo conference software and an audio conferencing system. In the next few months the last pieces of our equipment will arrive. This is specialized technology for augmented reality and immersive display.

Our most popular piece of equipment in 2014 was actually our floatation machine! This is due to a few CRM firms certifying their own employees to operate the machine at SA and its unique water-recycling design that allows it to be used year round. Samples could still be processed even in the snow and sub-zero temperatures. Other regularly used equipment is our Geophysical technology including a Ground Penetrating Radar, Dual Array Magnetic Gradiometer and Resistivity Meter. It has been useful in identifying unmarked grave locations at several locations across Ontario this past year. We expect that as researchers and CRM firms get wind of our new microscope, it will compete with the flotation machine in popularity in 2015.
Research Grant Opportunities

Note: Please verify all application criteria and deadlines with the appropriate granting organization.

MITACS Accelerate Research Internship Program

Through Mitacs Accelerate, graduate students and post-doctoral fellows from over 50 universities apply their specialized expertise to business-related research challenges.

Interns spend approximately half of the time on-site with the industry partner; the remainder is spent at the university advancing the research under the guidance of a faculty supervisor.

The program is open to all disciplines and all industry sectors.

Each 4-month internship project receives $15,000 in direct funding, with the partner organization and Mitacs each providing $7,500

Application Deadline: Applications are accepted throughout the year, and projects may begin at any time.

For specifics on the program, funding, application criteria and more, visit www.mitacs.ca/accelerate

MITACS Elevate

Mitacs Elevate supports post-doctoral fellows and Canadian companies and partners to collaborate on cutting-edge research projects and build capacity for the next generation of R&D management leaders.

The two-year program provides fellows with an opportunity to lead a long-term research project with a partner organization while developing professional skills and benefiting from leadership training.

Application Deadline: The next call for applications is scheduled for Spring 2015.

For more information on eligibility, how to apply, and more, visit www.mitacs.ca/elevate

The Leakey Foundation Research Grants

The Leakey Foundation funds research related to human origins, including paleoanthropology, primate behavior, & studies of modern hunter-gatherer groups.

Research Grants to doctoral students range from $3,000 to $15,000; larger grants to senior scientists and post-doctoral students may be funded up to $25,000. No citizenship restrictions.

Application Deadline: July 15 and January 5 yearly

For more information visit www.leakeyfoundation.org/grants-overview/

Ruggles-Gates Fund for Biological Anthropology

Fund administered by the Royal Anthropological Institute that provides grants for graduate research in biological anthropology. No nationality restriction.

Application Deadline: March 31 annually

For more information on the nature of the award, and how to apply, visit www.therai.org.uk/awards/research-grants/ruggles-gates-fund-for-biological-anthropology/
Research Grant Opportunities

Note: Please verify all application criteria and deadlines with the appropriate granting organization.

Sigma Xi Grants-in-aid of Research Program

Grants of up to $1,000 to students from all areas of the sciences and engineering. Grants are used to pay for travel expenses to and from a research site, or for the purchase of non-standard laboratory equipment. Membership of Sigma Xi is not a requirement. No citizenship restrictions.

Application Deadline:
March 15 and October 15 annually.

For more information on the program, and how to apply, visit www.sigmaxi.org/programs/grants-in-aid

Raymond Davis Scholarship

This scholarship is given to an advanced level undergraduate or graduate student with an academic and/or research focus in a field related to imaging. The applicant must be an undergraduate who has completed two academic years of study or a graduate level student, and must be a full-time student at an accredited institution.

A certificate and grant of at least $1,000 are given to recipients of this award. One or more awards are made annually, depending on available funds.

For more information, visit: www.imaging.org/ist/membership/davis.cfm?AwardCode=RS

Wenner-Gren Foundation

A variety of the Foundation's grants support students enrolled in doctoral programs leading to a Ph.D. (or equivalent), including grants for dissertation research.

For more information on specific grants available, the application criteria and application deadlines, visit www.wennergren.org/

Picture This! Continued from Page 1

Our DSLR photography station uses computer software to take pictures and adjust camera settings. This significantly speeds up our ability to generate consistent artifact photos. Figure 3 demonstrates the detail captured on a nickel-sized devotional Medallion.

Our imaging goal for 2015 is to set up more imaging stations. The information gained through imaging artifacts sustainably advances our archaeological practice and research.

Figure 4: Photograph of detail on Jesuit Medallion undiscernible by eye
**Sustainable Archaeology’s Mission Statement**

Sustainable Archaeology is dedicated to advancing a transformative practice of archaeology that integrates the many forms of the discipline – commercial, academic, avocational – by consolidating the extensively recovered archaeological record from a region of the world and converting that material and contextual data into broadly accessible and integrated digital information. This compiled and converted record will allow for ongoing and innovative research advancing the knowledge, conception, appreciation, and engagement of this compiled and rich archaeological heritage left by the countless previous generations of those who loved, lived, and died in this place, by all those today who draw awareness, meaning, value, and identity from this human heritage.

## Upcoming Events and Conferences

**Events**


**Western University Department of Anthropology: Graduate Research Seminar Series.** Fridays at 2:30pm, Social Sciences 2257. [anthropology.uwo.ca/about_us/Events.html](http://anthropology.uwo.ca/about_us/Events.html)

**The Franklin Expedition:** two talks at the London Public Library. March 23 and May 4 at 7:00pm. [http://tinyurl.com/odwy9bs](http://tinyurl.com/odwy9bs)

**Conferences**

**Western Anthropology Graduate Society Conference.** March 6-8, Western University, ON. [#UWOAnthroCon](https://www.sustainablearchaeology.org)

**American Association of Physical Anthropologists 84th Annual Meeting.** March 25-28, St. Louis, MO. [http://physanth.org/annual-meetings/84th-annual-meeting/](http://physanth.org/annual-meetings/84th-annual-meeting/)

**Computer Applications & Quantitative Methods in Archaeology 43rd Annual Conference.** March 30-April 3, Siena, Italy. [http://caaconference.org/](http://caaconference.org/)

**Society for American Archaeology 80th Annual Meeting.** April 15-19, San Fransico, CA. [www.saa.org](http://www.saa.org)


**Canadian Archaeological Association 47th Annual Meeting.** April 29-May 2, St. John’s, NL. [www.mun.ca/caa2015/intro.html](http://www.mun.ca/caa2015/intro.html)


**North American Theoretical Archaeology Group (TAG),** May 22-24, New York University, NY. [www.tagusa.org](http://www.tagusa.org)

**Digital Humanities 2015.** June 29-July 3, Sydney, Australia. [dh2015.org](http://dh2015.org)

**Ontario Archaeological Society 2015 Symposium:** “Huronia - Before and After Champlain,” October 16-18, Midland, ON. [www.ontarioarchaeology.on.ca/](http://www.ontarioarchaeology.on.ca/)

**Conference on Cultural Heritage and New Technologies:** “Urban Archaeology”, November 24, Vienna, Austria. [www.stadtarchaeologie.at/](http://www.stadtarchaeologie.at/)

**Chacmool 2015:** Shallow Pasts, Endless Horizons: Sustainability & Archaeology, November 7-9, University of Calgary, Calgary, AB. [https://antharky.ucalgary.ca/chacmool2015/](https://antharky.ucalgary.ca/chacmool2015/)