UPCOMING MEETINGS

NATIONAL MEETING OF THE GEOLOGICAL SOCIETY OF AMERICA
October 22-25, 2017
Seattle, Washington
http://community.geosociety.org/gsa2017/home

GSA Archaeological Geology Business Meeting & Awards Ceremony:
Monday, October 23, 2017. 5:45 – 8:00 PM
Washington State Convention Center - Room 3B

ARCHAEOLOGICAL GEOLOGY SESSIONS:

Session 53 Sunday, October 22 (1:30-5:30pm)
Washington State Convention Center - Room 3B
T197. No Dates: No Rates—Utilizing Geochronometers to Quantify Rates of Geomorphic Processes or Archaeological Development over a Wide Range of Temporal and Spatial Scales

Session 63 Sunday, October 22 (9:00am-5:30pm)
Washington State Convention Center - Halls 4EF
T196. Advances in Geoarchaeology (POSTERS)

Session 64 Sunday, October 22 (9:00-5:30pm)
Washington State Convention Center - Room 4EF
T197. No Dates: No Rates—Utilizing Geochronometers to Quantify Rates of Geomorphic Processes or Archaeological Development over a Wide Range of Temporal and Spatial Scales (POSTERS)

Session 92 Monday, October 23 (8am-12pm)
Washington State Convention Center - Ballroom 6A
P2. Landscapes in the Anthropocene I

Session 112 Monday, October 23 (8am-12pm)
Washington State Convention Center - Room 3B
T196. Advances in Geoarchaeology I

Session 125 Monday, October 23 (1:30-5:30pm)
Washington State Convention Center - Ballroom 6A
P2. Landscapes in the Anthropocene II

Session 145 Monday, October 23 (1:30-5:30pm)
Washington State Convention Center - Room 3B
T196. Advances in Geoarchaeology II

Session 243 Tuesday October 24 (1:30-5:30pm)
The Conference Center - Chelan 4
T189. Landscapes in the Anthropocene

Session 295 Wednesday October 25 (8am-12pm)
Washington State Convention Center - Room 6C
D22. From Processes to Stratigraphy

Session 309 Wednesday October 25 (8am-12pm)
Washington State Convention Center - Room 307/308
T96. Understanding African Environmental History through Continental Scientific Drilling: Past Successes and Future Opportunities

Session 359 Wednesday October 25 (9am-6:30pm)
Washington State Convention Center – Halls 4EF
T189. Landscapes in the Anthropocene (POSTERS)

CONFERENCES AND WORKSHOPS

2018 Society for American Archaeology 83rd Annual Meeting
Washington, DC
April 11-15, 2018

2018 Archaeological Institute of America Meeting
Boston, MA; January 4-7, 2018
https://www.archaeological.org/annualmeeting
XX INQUA Congress  
July 25–31, 2019  
Dublin, Ireland  
http://www.inqua.org/inquaCongress.html

Landscape Archaeology Conference  
17-20 September 2018  
Newcastle Upon Tyne and Durham (United Kingdom)  
Abstracts due: April 15, 2018  
http://www.ncl.ac.uk/mccordcentre/lac2018/

GEOLOGICAL SOCIETY OF AMERICA  
REGIONAL SECTION MEETINGS  
https://www.geosociety.org/GSA/Events/Section_Meetings/GSA/Sections/Home.aspx

2018 GSA South-Central Section  
52nd Annual Meeting  
12–13 March • Little Rock, Arkansas  
Abstracts Due: December 5  
https://www.geosociety.org/GSA/Events/Section_Meetings/GSA/Sections/sc/2018mtg/home.aspx

2018 GSA Southeastern Section  
67th Annual Meeting  
12–13 April • Knoxville, Tennessee  
Abstracts Due: January 16  
https://www.geosociety.org/GSA/Events/Section_Meetings/GSA/Sections/se/2018mtg/home.aspx

2018 GSA Northeastern Section  
(52nd Annual Meeting)  
18–20 March 2018 • Burlington, Vermont, USA  
Abstracts Due: December 12  
https://www.geosociety.org/GSA/Events/Section_Meetings/GSA/Sections/ne/2018mtg/home.aspx

2018 GSA North-Central Section  
(52nd Annual Meeting)  
16–17 April • Ames, Iowa  
Iowa State University  
Abstracts Due: January 16  
https://www.geosociety.org/GSA/Events/Section_Meetings/GSA/Sections/nc/2018mtg/home.aspx

Rocky Mountain (70th Annual Meeting)  
& Cordilleran (114th Annual Meeting)  
GSA Joint Section Meeting  
15–17 May • Flagstaff, Arizona  
https://www.geosociety.org/GSA/Events/Section_Meetings/GSA/Sections/rm/2018mtg/home.aspx

AWARDS

THE DOUGLAS C. KELLOGG AWARD FOR GEOARCHEOLOGICAL RESEARCH

The Douglas C. Kellogg Award provides support for dissertation research, with emphasis on the field and/or laboratory aspects of this research, for graduate students in the earth sciences and archaeology. Under the auspices of the SAA’s Geoarchaeology Interest Group, family, friends, and close associates of Douglas C. Kellogg formed a memorial in his honor.  
Eligibility: Recipients of the Kellogg Award will be students who are (1) actively pursuing the Ph.D. degree in earth sciences or archaeology; (2) applying earth science methods to archaeological research and (3) seeking to engage in a career in geoarchaeology.

Materials Required: The application should consist of a research proposal no more than three pages long that describes the research and its potential contributions to American archaeology, a curriculum vita, and two letters of support, including one from the chair that certifies that the student is conducting the proposed research along with the expected date of completion of the degree. Electronic submissions as pdfs sent to the committee chair are preferred. File names must include the applicants surname or last name and the award (Douglas C. Kellogg Fund for Geoarchaeological Research) must be clearly indicated in the proposal.

For more information contact:  
Cynthia Fadem (fademcy@earlham.edu)

Application guidelines:  

Submission Deadline: November 1, each year

Congratulations to our 2017 awardee: Justin Nels Carlson (University of Kentucky)!

GEOARCHAEOLOGY INTEREST GROUP  
PAUL GOLDBERG RESEARCH AWARD  
(formerly the M.A./M.S. RESEARCH AWARD)

The Geoarchaeology Interest Group Paul Goldberg Research Award provides support for thesis research, with emphasis on the field and/or laboratory aspects, for graduate students in the earth sciences and archaeology.

Eligibility: Recipients of the Geoarchaeology Interest Group Paul Goldberg Research Award will be students...
who are (1) actively pursuing the M.A. or M.S. degree in earth sciences or archaeology (please indicate which on application); and (2) applying earth science methods to archaeological research.

**Materials Required:** The application should consist of a research proposal no more than three pages long that describes the research and its potential contributions to American archaeology, a curriculum vita, and two letters of support, including one from the committee chair that certifies that the student is conducting the proposed research along with the expected date of completion of the degree. Electronic submissions as pdfs sent to the committee chair are preferred. File names must include the applicants surname or last name and the award you are applying for must be clearly indicated in the proposal.

**For more information contact:**
Cynthia Fadem (fademcy@earlham.edu)

**Application guidelines:**
http://saa.org/AbouttheSociety/Awards/GeoarchaeologyInterestGroupMAMSResearchAward/tabid/1505/Default.aspx

**Submission Deadline:** November 1, each year

**Congratulations to our 2017 awardee:**
Heidi Van Etten (University of Wyoming)!

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**SOCIETY FOR ARCHAEOLOGICAL SCIENCES STUDENT RESEARCH INTERNATIONAL TRAVEL AWARD**

The Society for Archaeological Sciences is pleased to announce the creation of the SAS Student Research International Travel Award. Up to $1000 is now available to help with costs of international travel for laboratory or field research to students who have been SAS members for more than one consecutive year.

**Eligibility:** Applications will be accepted from undergraduates in their final year of study who are planning to attend graduate school as well as Masters degree and PhD students. Research must be undertaken in a different country than that of their home institution. Funds may not be used to attend at conferences, field schools, classes and/or training courses.

**For more information contact:**
Dr. Michael W. Gregg (greggmic@sas.upenn.edu)

**Application guidelines:**
http://www.archaeological.org/grants/6473

**Submission deadline:** February 1 & September 1, annually

**FRYESELL AWARD FOR INTERDISCIPLINARY RESEARCH**

The Fryxell Award is presented in recognition for interdisciplinary excellence of a scientist who need not be an archaeologist, but whose research has contributed significantly to American archaeology. The award is made possible through the generosity of the family of the late Roald Fryxell, a geologist whose career exemplified the crucial role of multidisciplinary cooperation in archaeology. The award cycles through zoological sciences, botanical sciences, earth sciences, physical sciences, and general interdisciplinary studies. The Fryxell Award for 2018 will be presented in the “Earth Sciences” category.

**Eligibility:** Any professional archaeologist may submit nominations for this award. Nominees must be SAA members by the time of their nomination.

**Materials Required:** Nominators must submit a letter describing the nature, scope, and significance of the nominee’s contributions to American archaeology, as well as the nominee’s curriculum vita. Support letters from other scholars are helpful. 4-6 are suggested. Please send submissions to the committee chair.

**For more information contact:**
Ben Fitzhugh (fitzhugh@uw.edu)

**Application guidelines:**

**Nomination/Submission Deadline:** March 1, 2018

**Congratulations to our 2017 awardee:**
Naomi Francis Miller (University of Pennsylvania)!

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**RIP RAPP AWARD**

George "Rip" Rapp, Jr. was one of the primary individuals responsible for establishment of the division and generously established a division award fund with the GSA Foundation. The award is given for outstanding contributions to the interdisciplinary field of archaeological geology.

**Materials Required:** Nominations should include a biographical sketch, a statement of outstanding
achievements, and a selected bibliography of the nominee.

For more information contact:
Rolfe D. Mandel (mandel@ku.edu)

Nomination deadline: February 15, annually

Congratulations to our 2017 awardee, Dr. Panagiotis (Takis) Karkanas, Malcolm H. Wiener Laboratory for Archaeological Science of the American School of Classical Studies at Athens!!

**CLAUDE ALBRITTON, JR. AWARD**

Under the auspices of the Archaeological Geology Division, family, friends and close associates of Claude C. Albritton, Jr., have formed a memorial fund in his honor at the GSA Foundation.

Eligibility: Recipients of the award are students who have (1) an interest in achieving a Master's or Ph.D. degree in earth sciences or archaeology; (2) an interest in applying earth science methods to archaeological research; and (3) an interest in a career in teaching and academic research.

For more information contact:
Rolfe D. Mandel (mandel@ku.edu)

Application guidelines:
http://www.geosociety.org/arch/studentawards.html

Submission deadline: March 5, annually

Funding & Contributions: Initially, the fund was set up with a gift of several thousand dollars. Members of the division, other GSA members, and those who know Claude are being asked to consider contributing to this fund. To contribute to the Albritton Fund, send your gift to the GSA Foundation, indicating that the gift should go toward this award.

Congratulations to our 2017 awardee, Leila Donn, an M.A. student in the Department of Geography and the Environment, University of Texas at Austin. The title of her thesis research is *Long-Term Human-Environmental Contributions to Landscape Formation in the Belize-Guatemala Transboundary Area.*

**R.E. TAYLOR STUDENT POSTER AWARD**

This prestigious award acknowledges innovative student contributions to archaeological research through the use of scientific methods, and has enhanced the careers of prominent young scholars and professionals for more than a decade. The award is named in honor of Professor Emeritus R. Ervin Taylor of the University of California at Riverside for his outstanding contributions in the development and application of radiocarbon dating in archaeological research and his dedication to the founding of the Society for Archaeological Sciences; his leading role as President (1980) and General Secretary (1981-2002) of the Society; and his committed service as editor of the SAS Bulletin. Professor Taylor's many valuable contributions were recognized by the SAA in 2004 with the Fryxell Award for Interdisciplinary Research. The award consists of $100 US, a one-year SAS membership and subscription to the SAS Bulletin.

Eligibility: Entries will be judged on the significance of the archaeological problem, appropriate use of methods, soundness of conclusions, quality of the poster display, and oral presentation of the poster by the student, who should be the first author in order to be considered.

For more information contact:
Destiny Crider (cridde01@luther.edu)

Application guidelines:
http://www.socarchsci.org/awards.html

Submission deadline: TBA

Congratulations to our 2017 awardees, Sean W. Hixon (Department of Anthropology, Pennsylvania State University), Emma A. Elliott Smith (Department of Biology, University of New Mexico), Brooke Crowley (Departments of Geology and Anthropology, University of Cincinnati), George Perry (Department of Anthropology, Pennsylvania State University), Richard Bankoff (Department of Anthropology, Pennsylvania State University), Douglas Kennett (Department of Anthropology, Pennsylvania State University), Seth D. Newsome (Department of Biology, University of New Mexico): "Patterns in Amino Acid $\delta^{15}$N Values of Lemurs Are Inconsistent with Aridity Driving Megafaunal Extinction in Southwestern Madagascar"!

**RICHARD HAY STUDENT PAPER/POSTER AWARD**

Richard Hay was a long-standing member of the Archaeological Geology Division and had a long and distinguished career in sedimentary geology, mineralogy, and archaeological geology. He is particularly well known for his work on the Olduvai Gorge and Laetoli hominid-bearing sites and was awarded the Division's Rip Rapp award in 2000. The
grant is competitive and will be awarded based on the evaluation of the scientific merit of the research topic and the clarity of an expanded abstract for the paper or poster prepared by a student for presentation in the Division's technical session at the meeting.

**Eligibility:** The Richard Hay Student Paper/Poster Award is a travel grant awarded to a student presenting a paper or poster at the GSA's annual meeting.

**For more information contact:** Rolfe D. Mandel (mandel@ku.edu)

**Application guidelines:**
http://www.geosociety.org/arch/studentawards.html

**Submission deadline:** September 1, annually

**Funding & Contributions:** To contribute to the Hay Award, send your gift to the GSA Foundation, designating the gift for the Archaeological Geology Division Fund.

**Congratulations to our 2016 awardee, Michael Aiualasit, (Southern Methodist University)!!**

**GEOARCHAEOLOGY: AN INTERNATIONAL JOURNAL**

Geoarchaeology is an interdisciplinary journal published six times per year that presents the results of original research at the methodological and theoretical interface between archaeology and the geosciences. It remains the premier peer-reviewed publication emphasizing our discipline. Virtual issues are currently accessible on-line at the journal’s website - all virtual issue articles are free for downloading.

You are invited to submit your research to Geoarchaeology. There are three submission categories: research articles, short contributions, and review papers. Manuscripts should examine the interrelationship between archaeology and the various disciplines within Quaternary science and the Earth Sciences more generally, including, for example: geology, geography, geomorphology, pedology, climatology, oceanography, geochemistry, geochronology, and geophysics. We also welcome papers that deal with the biological record of past human activity through the analysis of faunal and botanical remains and palaeoecological reconstructions that shed light on past human-environment interactions.

The journal also welcomes manuscripts concerning the examination and geological context of human fossil remains as well as papers that employ analytical techniques to advance understanding of the composition and origin or material culture such as, for example, ceramics, metals, lithics, building stones, plasters, and cements. Manuscripts reporting on research conducted in Africa, Australia, and South America are especially encouraged.

Manuscript submission and review is fully electronic and processed through Manuscript Central, a web-based program for managing documents in the peer-review process.

**Journal Website & Submission Guidelines:**

**Co-editors:** Gary Huckleberry & Jamie C. Woodward

**For more information contact:**
Gary Huckleberry (ghuck@email.arizona.edu)

****RECENT PUBLICATION**

*The Encyclopedia of Geoarchaeology* was released in September 2016. The handy electronic and print editions of the encyclopedia are available. The 1000 page encyclopedia is your first stop for specialists who need geoarchaeological information. The book is edited by Allan S. Gilbert, with associate editors Paul Goldberg, Vance T. Holliday, Rolfe Mandel, and Robert S. Sternberg.

The encyclopedia defines terms, introduces problems, describes techniques, and discusses theory and strategy, all in a format designed to make specialized details accessible to the public as well as practitioners. It covers subjects in environmental archaeology, dating, materials analysis, and paleoecology, all of which represent different sources of specialist knowledge that must be shared in order to reconstruct, analyze, and explain the record of the human past.
Geoarchaeology: From Space to Subsurface
Surveys with a New Laboratory

A facility for a new science in Athens, Greece, announces the opening of the new Malcolm H. Wiener Laboratory for Archaeological Science. Set within the beautiful gardens of the American School of Classical Studies at Athens (ASCSA), this c. 850 square meter laboratory shares library facilities, staff and students with the ASCSA. It represents a significant advance for the geoarchaeological sciences at an especially critical time for deciphering not only past human impacts on the earth and its resources and climate, but cultural response and survival following these impacts. Archaeological research provides the temporal scale that records the conterminous consequences, in a stratigraphic record that also documents the repercussions.

Facilities incorporate a library focused on geoarchaeology (an extension of the Blegen Library of the ASCSA), eight laboratories for analytical chemistry, soil/sedimentology with digital and polarizing microscopes and thin-sectioning equipment, x-radiography, x-ray fluorescence (pXRF), osteology, 3D scanning, and an SEM with electron probe x-ray microprobe microanalyzer (EDS). A Collections Center incorporates space for working with the large reference collections of specimens, thin sections, and microscope mounts of pollens, seeds, phytoliths, charcoal, minerals, rocks, animal, and human skeletal remains.

Close ties with a vibrant community of geological and archaeological laboratories in Greece make for a lively and exciting setting for numerous disciplines that contribute to the uniqueness of geoarchaeological research. Cooperative laboratories include the Fitch Laboratory at the adjacent British School at Athens, the University of Athens, Demokritos Archaeometry Laboratory, the Institute for Geology and Mineral Resources, the Institute for Aegean Pre-History East Crete Study Center, and the Greek Ministry of Culture and Archaeological Service. This combination creates a busy assembly of talks, seminars, colloquia, field courses and trips, with a spirited social aftermath.

Current and past research conducted at the Wiener laboratory includes geology, geophysics, geochemistry, palaeoanthropology and micropalaeontology, palaeoanthropology, oceanography, climatology, geoenvironmental, and the material sciences. This comes at a time when it is such research that contemporary society needs to understand a past cultural heritage that have been influential on its success and future, from climate alteration to natural disasters. The new laboratory is a gift of Dr. Malcolm H. Wiener who has generously seen a new facility planned, constructed, and equipped. For an overview of the laboratory and its staff, facilities, fellowships, grants, bench fees, and opportunities, as well as an archive of past research efforts, go to: www.ascsa.edu.gr/index.php/wienerlaboratory.

NOTES FROM THE FIELD

STUDENT NEWS

Luisa Aebersold (University of Texas), Fred Valdez Jr. (University of Texas), David Burns (LCRA), Samantha M. Krause (University of Texas), and Anastasia Kotsoglou (Cornell University) conducted field research at the ancient Maya site of Colha in Northwest Belize. The research focuses on human-environment interactions on a wetland periphery site during a time of climatic and cultural change (8,000 to 2,000 cal. B.P.). Sediments were sampled for microcharcoal and phytolith analysis. Characterizing stratigraphy, soil properties, and microbotanical remains will contribute to a better understanding of anthropogenic manipulation and long-term impacts on similar neotropical environments.

Mathew Fox (University of Arizona) has been conducting fieldwork in the Hanzhong and Luonan Basins of the Qinling Mountains of central China. In collaboration with Nanjing University and the Chinese Academy of Science’s Institute of Vertebrate Paleontology and Paleoanthropology, this group is interested in reconstructing monsoonal and environmental variability associated with mid-Pleistocene H. erectus occupations. Working under the direction of Jessica Tierney (University of Arizona), Mathew is currently processing samples taken from Paleolithic loess-paleosol sequences for biomarker and isotopic analyses. More specifically, he is examining if changes in the East Asian Monsoon and local vegetation regimes had an impact on subsistence activities and Paleolithic technologies.

Ismael Sánchez-Morales (University of Arizona) directed archaeological survey and excavation at El Fin del Mundo, El Gramal, and El Tetebajo. These are late Pleistocene sites in north-central Sonora, Mexico, which have produced evidence of a significant Clovis and Archaic occupation in the area. This research is part of an ongoing geoarchaeological project co-directed by Guadalupe Sanchez (Universidad Nacional Autónoma de México) and Vance Holliday (University of Arizona), focused on the study of the adaptations of early human populations to the changing environment of Northwestern Mexico at the end of the Pleistocene and the development and setting of the Sonoran Desert during the early Holocene. This multidisciplinary project involves geoarchaeological, zooarchaeological, and lithic analyses to address changes in land use and mobility strategies of the Paleoindian and Archaic hunter gatherers of the region. Currently the team is planning the next field season of the project to be conducted at El Fin del Mundo in January and February.
Morgan Smith and Mike Waters (Center for the Study of the First Americans, Texas A&M University) directed underwater geoarchaeological excavations in the Silver River, Florida, in July 2017. The focus of this research was the Guest Mammoth site, first reported on in 1973 but largely dismissed due to its underwater context and an erroneous radiocarbon age obtained on unpurified mammoth bone collagen. Smith and crew conducted precise underwater excavations at the site in order to 1) determine the geologic unit from which the mammoth bones derived, 2) build a depositional history of the site to evaluate the stratigraphic integrity of the mammoth bone bed, 3) recover more mammoth bones to obtain more accurate radiocarbon dates through XAD collagen dating, and 4) find additional artifacts. The successful results of this excavation, including new radiocarbon dates and the association of the mammoths with the artifacts, will be available soon. Smith also plans to use sediment cores to reconstruct the local paleoenvironmental record. This research is part of an ongoing collaborative effort with Jessi Halligan, Shawn Joy, and Grayal Farr (Florida State University), Michael Faught (SEARCH, Inc.), David Thulman (George Washington University), Adam Burke (Texas A&M University), and Brendan Fenerty (University of Arizona). This research is being conducted through a partnership with the Felburn Foundation, with funding from Texas A&M University and the Center for the Study of the First Americans.

FEATURED RESEARCH

By: Timothy M. Schilling
Archeologist, National Park Service
Midwest Archeological Center
tim_schilling@nps.gov

Geoarchaeology at Pictured Rocks National Lakeshore

Pictured Rocks National Lakeshore, located on Michigan’s Upper Peninsula along the south shore of Lake Superior, is known for a stunning geological landscape. Archaeological resources at the park are poorly known. In the summer of 2017, the Midwest Archeological Center spent three weeks investigating the Miners Beach area. Past researchers noted the archaeological potential of Miners Beach but survey results have been sparse. In the recent research, we used a landscape scale approach to understand the chronology and processes that would affect archaeological deposits. This approach is useful for resource management since it is both retrodictive, looking for locations that would have been amenable to past cultural activity, and predictive, able to identify areas where resources may be endangered.

Miners Beach formed as a strandplain as water receded from the high water of the Nipissing Lake Phase (c. 4500-4000 B.P.). In its modern form, Miners Beach is one of the few places along the National Lakeshore where past people could have landed and easily accessed the interior but as the strandplain developed, the environment would have been dynamic and successional making long-term settlement unattractive and resources spotty. Past research demonstrated that archaeological materials are concentrated along the modern lakeshore and decline in abundance with distance. One of our research questions was to understand what processes created this pattern. Is it the result of a cultural pattern where people were using the landscape on after it had stabilized or have post-depositional processes removed all but those along the modern lakeshore?

Results from field survey show that archeological resources in the Miners Beach area are restricted to the swale between the first and second beach ridges. Sediments on the front side of
the first dune, while appearing to be very old buried A-horizons, are actually buried modern surfaces created by changing land use patterns over the past 50 years. Moreover, our research indicates that despite modern lake level fluctuations, the first beach ridge is stable and not actively eroding except in places where modern disturbance have removed vegetation consequently, archeological deposits in the landward swale are generally stable unless impacted by anthropogenic disturbance.

Figure 3. Side-notched point recovered in 2017