UPCOMING MEETINGS

NATIONAL MEETING OF THE GEOLOGICAL SOCIETY OF AMERICA
November 1-4, 2015
Baltimore, Maryland
http://community.geosociety.org/gsa2015/home

GSA Archaeological Geology Division Business Meeting & Awards Ceremony: Monday, November 2, 2015, 5:15-8:00 PM, Baltimore Convention Center Room 318

ARCHAEOLOGICAL GEOLOGY SESSIONS:

T9. Developing Proxies for Human Impact on Soil and Sediment Mass Transfer throughout the Holocene
GSA Quaternary Geology and Geomorphology Division; (PAGES)—GLoSS Working Group; GSA Geology and Society Division; GSA Soils and Soil Processes Interdisciplinary Interest Group; GSA Archaeological Geology Division
Thomas Hoffmann, Timothy P. Beach, Gary Stinchcomb

T10. Frontiers in Geoarchaeology
GSA Archaeological Geology Division; GSA Quaternary Geology and Geomorphology Division
Laura R. Murphy, Justin A. Holcomb

T138. From the Caspian to Mediterranean: Environmental Change and Human Response during the Quaternary
Paleontological Society; Paleoceanography and Paleoclimatology Division; Avalon Institute of Applied Sciences, Canada; GSA Archaeological Geology Discipline
Valentina Yanko-Hombach, Tamara Yanina

T184. African Environments across Space and through Time: Integrating Modern and Ancient Climate Data for Insights into Terrestrial Ecosystem Dynamics
GSA Quaternary Geology and Geomorphology Division; GSA Archaeological Geology Division; Paleontological Society; GSA Sedimentary Geology Division; Geochemical Society; Paleoceanography/Paleoclimatology Discipline
David Patterson, Sophie B. Lehmann, Naomi E. Levin

T189. New Applications of Geochronologic Techniques to Quaternary and Archaeological Settings
GSA Quaternary Geology and Geomorphology Division; GSA Archaeological Geology Division; GSA Karst Division
Harrison Gray, Michelle Summa Nelson, Kerry Riley

T195. Paleoenvironmental Reconstruction of Hominin Sites: New Methods, New Data, and New Insights
SEPM (Society for Sedimentary Geology); GSA Limnogeology Division; GSA Sedimentary Geology Division; GSA Quaternary Geology and Geomorphology Division; GSA Archaeological Geology Division
Cynthia M. Liutkus-Pierce, Gail M. Ashley, Andrew S. Cohen

T200. Hillslope Dynamics: Integrating Soils, Hydrology, and Climatic Processes to Understand Weathering and Sediment Transport on Drainage Basin Slopes
GSA Soils and Soil Processes Interdisciplinary Interest Group; GSA Quaternary Geology and Geomorphology Division; GSA Hydrogeology Division
Eric V. McDonald, J. Bruce J. Harrison, Michael Young, Todd Caldwell

Session 233 Archaeological Geology
Tuesday, 3 November 2015: 1:30 PM-5:30 PM
Room 318 (Baltimore Convention Center)
CONFERENCES AND WORKSHOPS

4th Annual Sclerochronology Conference
Portland, Maine June 5-9, 2016
https://isc16.las.iastate.edu/

Landscape Archaeology Conference
Uppsala University August 23-26, 2016
http://www.arkeologi.uu.se/LAC_2016+

Symposium "Geoarchaeology, Man, and Territory
Tucumán, Argentina Aug 8-12, 2016
https://sites.google.com/site/iaggeoarch/announce/15091

International Symposium on Archaeometry
Kalamata, Greece; May 23-27, 2016
https://sites.google.com/site/saswiki/Home/announcements/conferences/internationalsymposiumonarchaeometry

Geological Society of America Regional Section Meetings

South-Central Section Meeting
March 21–22, 2016 Baton Rouge, Louisiana, USA
http://www.geosociety.org/Sections/sc/2016mtg/

Southeast Section Meeting
March 31-April 1, 2016 Columbia, South Carolina
http://www.geosociety.org/Sections/se/2016mtg/

Northeast Section Meeting
March 21-23, 2016 Albany, New York
http://www.geosociety.org/Sections/ne/2016mtg/

Cordilleran Section Meeting
April 4-6, 2016 Ontario, California
http://www.geosociety.org/Sections/cord/2016mtg/

North Central Section Meeting
April 18-19, 2016 Champaign, Illinois
http://www.geosociety.org/Sections/nc/2016mtg/

Rocky Mountain Section Meeting
May 18-19, 2016 Moscow, Idaho
http://www.geosociety.org/Sections/rm/2016mtg/

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:
Susan M. Mentzer (susan.mentzer@ifu.uni-tuebingen.de)

Application guidelines:

Submission Deadline: December 4, 2015

Congratulations to our 2015 awardee:
Bryn Letham!

GEOARCHAEOLOGY INTEREST GROUP
M.A./M.S. RESEARCH AWARD

The Geoarchaeology Interest Group M.A./M.S. 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 M.A./M.S. 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:
Susan M. Mentzer (susan.mentzer@ifu.uni-tuebingen.de)

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

Submission Deadline: December 4, 2015

Congratulations to our 2015 awardee:
Alexander Delgado!

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

FRYXELL 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 2015 will be presented in the 'general interdisciplinary' 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: February 4, 2014

Congratulations to our 2015 awardee:
David Hurst Thomas!

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 2015 awardee, Dr. Francis (Frank) Brown! Dean, College of Mines and Earth Sciences and Distinguished Professor of Geology and Geophysics.
Nominated by: Thure Cerling & Richard Klein

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 2015 awardee, Rachel Cajigas (University of Arizona)!

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.

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 (destiny.crider@asu.edu)

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

Submission deadline: April 1, 2016

Congratulations to our 2015 awardee, Kara Fulton (University of South Florida) and Kristine Martirosyan-Olshansky (University of California Los Angeles)!

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 hominin-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 20, 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 2015 awardee, Alexander Brittingham (University of Connecticut)!
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.


Co-editors: Gary Huckleberry & Jamie C. Woodward

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

FEATURED RESEARCH

Glacial Geoarchaeology in Alaska
James Dixon, Maxwell Museum of Anthropology, University of New Mexico

During the past 13 years, Professor James Dixon has led a research program in three of Alaska’s largest National Parks. With funding from the National Science Foundation’s Office of Polar Programs and the National Park Service, Dixon and his students have searched for rare and well-preserved organic artifacts melting from glaciers. The research has led to a better understanding of the human use of glaciers and ice patches in high-latitude and high-altitude environments. The research has demonstrated that the accelerated melting of ancient ice correlates to recent trends in climate change and global warming. One of the results of the project suggests that if the global warming continues at or near its present rate, it is probable that most ice patches in Alaska will disappear by the end of this century.

Figure 1. Airborne Research in Alaska’s Remote Ice Patches.

The research discoveries and results have been reported in one book, an encyclopedia, several academic journals, more than 20 professional and public presentations, four videos and podcasts, and three museum exhibits. The project supported eight graduate students, some of whom are now conducting similar research in other areas of the world. The research also contributed to the establishment of a new peer-reviewed journal, the Journal of Glacial Archaeology, which released its first issue in 2014. Tribal members and representatives from several Alaska Native Tribes participated in the research. Tribal members of the Ahtna Heritage Foundation attended and spoke at museum exhibit openings in New Mexico and Alaska. Glacial archeology is now an established
scientific sub-discipline incorporating glacial geology, archeology, and paleoecology.

**Geoarchaeology and Site Taphonomy at Hurricane Bluff, Delta River, Alaska**

Julie Esdale, *Center for the Environmental Management of Military Lands, Colorado State University*

Josh Reuther, *University of Alaska Museum of the North, University of Alaska Fairbanks*

The US Army recently funded archaeological excavations at the Delta River Overlook and Hurricane Bluff archaeological sites located on Army managed lands in central Alaska. The location of the two sites is attractive both to modern soldier training and to ancient hunter-gatherers with a southwest facing aspect, clear views of game in the river valley below, and local access to water, raw materials in glacial outwash deposits. In modern times, bison use the site landforms as a corridor between grazing areas and frequently wallow in exposed sands on the. Bison bones have also been discovered buried deeply in multiple components of early to mid-Holocene age. Excavations at the site began in 2015 and are planned for 2016, in advance of landform stabilization measures. The area is very geologically active with frequent high winds that both erode and bury previously laid down sediments. The bison traffic prevents vegetation growth and promotes increased erosion.

![Figure 2. Aerial view of exposed archaeological sites Hurricane Bluff (right exposure) and Delta River Overlook (left exposure).](image)

At the Hurricane Bluff site physical erosion has exposed close to 4 m of ancient deposits in vertical bluffs. The bluffs hold a record of windblown deposits dating from recent times to the early Holocene with less active periods of vegetation growth and soil development. Volcanic ash layers have also been trapped in the stratigraphy. These bluffs have attracted researchers from a variety of institutions interested in Holocene geology, pedology, and paleoecology. This has resulted in a multidisciplinary collaboration studying the site prehistory and chronology (Colorado State University and University of Alaska Fairbanks), depositional and site taphonomy (University of Alaska Fairbanks), soil development (University of Arizona), volcanology (University of Alaska Fairbanks), OSL and feldspar dating (University of Quebec at Montreal), and ancient soil DNA (Cold Regions Research and Engineering Laboratory).

![Figure 3. Magnetic susceptibility samples taken through the loess/sand and paleosols at Delta River Overlook.](image)

![Figure 4. Soil micromorphology samples excavated at Hurricane Bluff](image)
This wide range of concurrent research is working toward answering a variety of research questions concerning Holocene soil development, vegetation change, and environmental conditions in central Alaska. We hope these projects will come together to provide a rich context for theories concerning changes in large mammal habitat and its effect on human subsistence strategies.

Where Men Get There Meat:
The Grapevine Creek Buffalo Jump Complex, Crow Indian Reservation, Montana

Edward Herrmann, Department of Geological Sciences, Indiana University

Rebecca Nathan, Crow Tribal Historic Preservation Office and Anthropology Department, Indiana University

During the summer of 2015, the Crow Tribal Historic Preservation Office (THPO) began archaeological survey of the Grapevine Creek drainage basin in order to inventory prehistoric sites and landscape used there. The basin is located in an ecotonal landscape north of Bighorn Canyon National Recreational Area between the Pryor Mountains and the unglaciated Missouri Plateau. The Crow name for the basin is translated as “Where men get their meat,” and a number of Crow oral histories focus on Grapevine Creek as a region of buffalo jumps. Although a few drivelines had been reported as early as the 1960s, researchers since have been unable to locate bone beds associated with possible jump sites. Prior to entering the field, we used GIS to study the local geomorphology and topography of Grapevine Creek in order to target test areas beneath cliff exposures with colluvial and/or alluvial deposition. The goal was to highlight landscape contexts with higher than average potential for bone bed burial and preservation.

Our field crew included tribal monitors, a geoarchaeologist and a graduate student currently working for the THPO. We were able to locate an intact bonebed in a remote box canyon. The site was buried by two episodes of landslide activity, and exposed by slumping caused by an ephemeral drainage that cut through a portion of the deposits. Along with bison bones (mni = 4), two in situ late Prehistoric Plains Side Notched projectile points were recovered from a test 1 x 1 unit suggesting the jump was active between 650 BP and the historic period. At a second site we recovered...
small pieces of bone on the talus slope beneath a 10 meter cliff with drivelines above. Time constraints prevented us from excavating a test unit, but the drive lines prompted us to conduct additional survey above other cliffs in the drainage. In an area of about 4 km², the survey crew documented five drivelines that lead to different cliff exposures, a number of tipi circles and chert extraction locales in the Grapevine Creek drainage suggesting that additional jumps are present nearby.

With support from the Bureau of Indian Affairs and the Crow THPO, we plan to return to Grapevine Creek next summer to continue our inventory of archaeological sites, and focus on geoarchaeological methods to test our developing predictive model for buffalo jump sites in the region.

IN MEMORIUM
William R. Dickinson

University of Arizona Professor Emeritus Bill Dickinson died in his sleep on July 21, 2015 while conducting fieldwork in Nuku’alofa, Tonga. Professor Dickinson was the 2014 recipient of the Geological Society of America Archaeological Geology Division Rip Rapp Award. Professor Dickinson was a pioneer of ceramic petrology documenting the epic migration of Pacific Islanders through his knowledge of island geology and temper mineralogy. We were honored to hear him speak at the 2014 AGD Business Meeting and Award Ceremony in Vancouver, BC. Dickinson’s archaeological colleagues also honored him this spring with a tribute session at the Society for American Archaeology meetings in San Francisco. Professor Dickinson’s wife, Jackie, preceded him in death on May 7, 2015. Besides his research career, Professor Dickinson mentored 42 master’s students and 43 doctoral students in geology and archaeology.