The Geological Society of America will hold its 2003 annual meeting at the Washington State Convention and Trade Center in Seattle, WA. The Division business meeting and awards ceremony will be held Monday, November 3, 2003, from 5:30-7:30 pm in room 2A of the Convention Center. A cash bar and snacks will be served. Please plan to attend. The division will also sponsor a field trip, a Pardee symposium, and several technical sessions. Please preregister before the September 26th deadline. Details are provided below.

Saturday, November 1.
Field Trip: “Recent Geoarchaeological Discoveries in Central Washington”. Contact: Gary Huckleberry (ghuck@wsu.edu), Dept. of Anthropology, Washington State University, Pullman, WA 99164-4910, (509) 335-4807, fax 509-335-3999; Cost: $80 (1L, R, vans). Visit recently studied geoarchaeological sites that provide insight into late Quaternary environments and early human prehistory. These include Columbia Park in Kennewick, where the controversial Kennewick Man skeletal remains were found, and Pleistocene-Holocene transition sites adjacent to the Columbia River, including the recently excavated Sentinel Gap site that contains a stratigraphic record complete with Paleoindian cultural material, paleosols and volcanic tephra.

Sunday, November 2.
T1: The Peopling of the New World: Geology, Archaeology, and Paleoenvironments. Vance Holliday presiding. 8am-12 pm, Ballroom 6A.
Session 36: Archaeological Geology I. Cynthia Stiles and Floyd McCoy presiding. 1:30-5:30 pm Room 2A.

Monday, November 3.
Session 91. Archaeological Geology II. Scott Pike and Joe Schudlenrein presiding. 1:30-5:30 pm Room 2A.
Special note: the Quaternary Geology and Geomorphology Division’s Kirk Bryan award presentation will be the last paper in this session.
ARCHAEOLOGICAL GEOLOGY

STUDENT AWARD

The Archaeological Geology Division encourages students to apply for a travel grant to attend the GSA’s Annual Meeting in Seattle, WA. The competitive grant is awarded based on an abstract and a 1,500-2,000 word summary paper prepared by the student for presentation in the Division’s technical session at the GSA meeting. The summary paper may include one figure and must be single authored. The application deadline has been extended to September 20, 2003. For details, please consult the division website: <http://rock.geosociety.org/arch/>.

DIVISION AWARD NOMINEES SOLICITED

The Division requests nominations for its annual Rip Rapp Archaeological Geology Award, given for outstanding contributions to the interdisciplinary field of archaeological geology. Nominations should include a biographical sketch, a statement of outstanding achievements, and a selected bibliography of the nominee. The deadline for nominations is February 15, 2004. Please consult the Division website or fall newsletter for details.

CLAUDE ALBRITTON FUND FOR ARCHAEOLOGICAL GEOLOGY

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 (see March, 1991 Newsletter). Initially, the fund was set up with a gift of several thousand dollars. Members of the GSA Archaeological Geology Division, GSA members, and those who knew Claude Albritton are being asked to consider contributing to this fund. The Albritton Fund will provide scholarships and fellowships for graduate students in the earth sciences and archaeology. Recipients of these awards will be students who have (1) an interest in achieving a MS or PhD 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 geoarchaeology.

Money donated to the Douglas C. Kellogg Fund is not to be used for the annual award. Instead, the interest generated each year will be awarded on an annual basis to the recipient. Initially, a minimum of $500 will be awarded; the amount of the award will increase as the fund grows and the amount of annual interest increases.

The first Douglas C. Kellogg Award was made to Aleksander Borejsza (UCLA). The title of his research is "Land Use and Land Tenure in Prehispanic Tlaxcala, Mexico: A Geoarchaeological Study of Agricultural Terraces and Soil Erosion." The award was made in Milwaukee at the 68th Annual Meeting of the SAA (Spring, 2003).

For more information, please contact Dr. Rolfe Mandel, Chair, Committee for the Douglas C. Kellogg Fund, Dept of Geography, University of Kansas, Lawrence, KS 66045-2121, <mandel@ku.edu>. The award competition is normally held in the Spring of each year.

ARCHAEOLOGICAL GEOLOGY DIVISION MANAGEMENT BOARD, 2002-2003

Chair: Vance T. Holliday, Dept of Anthropology, Univ of Arizona, Haury Bldg, Tucson, AZ 85721-0030; (520) 621-4734; vthollid@email.arizona.edu

Vice-Chair: David L. Cremeens, GAI Consultants, Inc, 570 Beatty Rd, Monroeville, PA 15146; (412) 856-6400 x3234; d.cremeens@gaiconsultants.com

Secretary-Treasurer: Andrea Freeman, Dept of Archaeology, Univ of Calgary, Calgary, AB T2N 1N4, Canada; (403) 220-2792; freeman@ucalgary.ca

Past Chair: Christopher L. Hill, Dept of Anthropology, Boise State Univ, 1910 University Drive, Boise, ID 83725-1950; (208) 426-2625; chill2@boisestate.edu

Division Website: <http://rock.geosociety.org/arch/>
MEETING ANNOUNCEMENTS

FRIENDS OF THE PLEISTOCENE
FIELD CONFERENCES

Rocky Mountain Cell, September 5-7, 2003:
The 2003 Rocky Mountain FOP will take place in scenic central Idaho. Highlights will include major debris-flow and flash-flood deposits, a variety of erosional features resulting from recent fires and storms, interpretation of alluvial fan stratigraphy, Pleistocene and Holocene terrace sequences, large-scale Quaternary landscape features, landscape evolution in the Idaho batholith region, and the glacial geology and Quaternary paleoclimatology of the spectacular Sawtooth Mountains.

Storm events following recent fires in the South Fork Payette and North Fork Boise basins have produced new deposits and have exposed Holocene fire-related debris flows and other fire-related sedimentation events in alluvial fan stratigraphy. They also provide an opportunity to examine post-fire responses of hillslopes and channels to storm events. The spectacular topography of the nearby Stanley Basin contains a myriad of glacial features, including moraine sequences and geomorphic and pedologic records of late Pleistocene glaciations.

Fall is a beautiful time of year in central Idaho, and the numerous hot springs along the trip route provide an excellent venue to discuss valley incision rates and the role of debris flows in long-term sediment yields.

If you are interested in participating and would like to be added to the email list, please email Jennifer Pierce <jpierce@unm.edu>. The trip will begin in the South Fork Payette/ North Fork Boise River area, an ~2 hour drive from Boise, Idaho. A campsite for the group will be reserved for Thursday, September 4th, and the trip will officially begin on the morning of Friday, September 5th. The trip will end on Sunday the 7th in Ketchum, Idaho (also ~2 hour drive from Boise). Details will be posted soon on Grant Meyer's website at <http://epswww.unm.edu/facstaff/gmeyer/>.

Northwest Cell, September 26-28, 2003:
The 2003 Northwest Cell FOP will focus on Holocene river processes in the Columbia River cell. Camping has been reserved at Fort Stevens State Park in Clatsop County. The first day of the fieldtrip will consist of an overview of Columbia River watershed, estuary, and offshore. On Saturday, September 27th there will be an overview of the Clatsop Co. dunes landscape at the group campground and then the group will travel to Camp Rilea to discuss dune sequence, shoreline changes, and sedimentation and erosion history. There will be a Ground Penetration Radar "demonstration" and a "demonstration" of use of the Australian sand auger. We will look at a dune sequence from modern to pre-jetty to about 2,000 yrs BP. There will be an evening session at a shelter along Coffenbury Lake starting about 19:00. On the final day of the trip, the group will travel to Warrenton to visit the site of the deepest bore hole on the West Coast to the Pleistocene. The stratigraphy of the Holocene at this site will be discussed. We will also visit a marsh site and view vibracore locations and cores along the Columbia River to reflect Holocene stratigraphy. To register for the field trip, please contact Frank Reckendorf (950 Market St. NE, Salem, OR 97301) or by fax (503 399-9421).

Pacific Cell, October 3-5, 2003:
The 2003 Pacific Cell Friends of the Pleistocene field trip will visit the southern Sierra Nevada in and around Sequoia and Kings Canyon National Parks. We'll examine the climatic and geomorphic processes that have shaped this dramatic landscape, as revealed by a diverse set of archives. We'll discuss (and visit) some of the caves in the region that are being used to constrain Quaternary river incision rates and test hypothesized late Cenozoic uplift of the Sierra Nevada. Several stops will address Quaternary climate change in the region, as recorded in speleothems, Sequoia and Foxtail Pine tree rings, and alluvial fan sequences in the eastern Great Valley. Finally, we'll review dating of geomorphic surfaces using lichenometry, including rockfall in Kings Canyon associated with paleoseismic events. One-day lichenometry short courses will bracket the FOP weekend.

As yet there are no restrictions on group size, but please be aware that some good sites may have to be bypassed if we have >40 cars. It's not too early to start thinking about carpooling!

For more information, please contact Greg Stock: <gstock@es.ucsc.edu>.

SOIL MICROMORPHOLOGY WORKSHOP
BOSTON UNIVERSITY, SARGENT CENTER
OCTOBER 10-13, 2003

Boston University will host a soil micromorphology workshop in the fall. The workshop will bring together researchers carrying out micromorphological research to share ideas, problems, results, frustrations, and thin sections. This is the first workshop of its kind. It will be interactive and will involve both students and professionals. For additional information, contact Paul Goldberg <paulberg@bu.edu> or Trina Arpin <tarpin@bu.edu>, Boston University, or Sarah Sherwood <scs@utk.edu>, University of Tennessee.
OTHER MEETINGS

The 18th International Radiocarbon Conference.  
Web pages currently posted include contact details for the organizing committee and information and photos of Te Papa, the conference venue. Please bookmark the site and check for updates. Conference timetable, information about submitting abstracts, and descriptions of the social program will be posted later this year. In 2002, abstract submission, registration and accommodation booking will be available though the web site as well as by mail. For now, the local organizing committee invites you to submit ideas for workshops, sessions, and program suggestions.

13th Goldschmidt Conference: Frontiers in Geochemistry.  
Conf website: http://www.ics-inc.co.jp/gold2003/  
Of interest to Division members is the special session on Quaternary Geochronology.

Archaeometallurgy in Europe.  
Conf website: http://www.fast.mi.it/aim/archaeo.htm  
Organized by the Associazione Italiana di Metallurgia.

October 3-5, 2003, Binghamton, NY.  
34th annual Binghamton Geomorphology Symposium.  
Conf website: http://continuinged.binghamton.edu/geo/  
Joint meeting: American Association of Stratigraphic Palynologists, Canadian Association of Palynologists, SEPM North American Micropaleontological Section.  
Conf site: <http://www.geology.utoronto.ca/aasp2003/>  
Co-Organizers: Francine McCarthy <francine@craton.geol.brocku.ca>  
Kevin Gostlin <gostlin@geology.utoronto.ca>

Contact: Allan Gilbert <gilbert@fordham.edu>  
Columbia University will host 19 researchers for a weekend program of free public presentations and discussions. The conferees include archaeologists, earth scientists, and marine geologists from several countries who are involved in exploratory research into landform changes or prehistoric human occupation of the Black Sea region. The presented papers will review geological and archaeological evidence for Quaternary transformations in the Black Sea basin, with specific focus on the sixth millennium BC inundation.

American Geophysical Union.  
Conf website: <http://www.agu.org/meetings/fm03/>  

Hawaii International Conference on Sciences.  
Conf website: <http://www.hicsciences.org/>

March 11-13, 2004. INSTAAR, University of Colorado, Boulder, CO.  
34th Annual International Arctic Workshop.  
<http://instaar.colorado.edu/meetings/AW2004/>  
This workshop has grown out of a series of informal annual meetings sponsored by INSTAAR and other academic institutions worldwide. In keeping with this tradition, there are no formalized topics, and the workshop is organized around themes developed from abstracts submitted for presentation and poster display. In 2004, we hope to build upon the increasing interdisciplinary breadth of previous years by encouraging additional contributions in glaciology and snow sciences. Previous Arctic Workshops have included presentations on Arctic and Antarctic climate, archeology, environmental geochemistry, anthropology, geomorphology, hydrology, glaciology, soils, ecology, oceanography, Quaternary history, and more. Submission deadline: Feb. 22, 2004.

34th International Symposium of Archaeometry.  
Conf site: <http://www.archaeometry2004.info>  
Originally scheduled for Hefei, China, the 34th was moved to its 2005 venue. This symposium will include a special session on the evolution and technology of glazes as well as six other technical sessions. The deadline for abstracts is December 2003, and the deadline for early registration is February 2004.

International Palynology Congress.  
Conference website: <http://www.11ipc.org/>

32nd International Geological Congress.  
Conference website: <http://www.32igc.org>  
The theme of the conference will be “From the Mediterranean Area Toward a Geological Renaissance: Geology, Natural Hazards and Cultural Heritage.”
TO ALL VOTING MEMBERS OF GSA’S ARCHAEOLOGICAL GEOLOGY DIVISION:

This is the ballot for officers for the Archaeological Geology Division for 2003-2005; starting with these officers, all AGD officers will serve two-year terms, in keeping with the AGD bylaws changes approved by AGD voters and the GSA Council in 2003. Please vote immediately by marking your ballot and mailing it to GSA, postmarked no later than October 6, 2003. You may vote online instead at <http://rock.geosociety.org/balloting/agd.asp> by October 6, 2003. Once at that site, you can log on using either your GSA member number or your e-mail address (if it is in your GSA records). If you need assistance, please contact GSA Services at gsaservice@geosociety.org or (303) 447-2020, ext 3 or tollfree at (888) 443-4472. Brief biographies for this year’s candidates follow.

**CHAIR:** David L. Cremeens. Educ: AA Life Sci, St Louis Comm Coll; BS Agric -Soil, Univ of Missouri; MS Pedology, Michigan State Univ; PhD Pedology, Univ of Illinois. Prof Exp: GAI Consultants, Inc., Sr Staff Soil Scientist (96-present), Staff Soil Scientist (89-95); Chatham Coll, Adjt Faculty Lect (98-pres); Univ of Illinois, Post-Doc Rsrch Spec (88-89). Prof Affil: GSA member since 1984; SSSA, AMQUA, SSA (Assoc), PA Assoc Prof Soil Scientists, WV Assoc Prof Soil Sci. GSA Service: AGD First Vice-Chair (02-03), Second Vice-Chair (01-02); co-orgnzr topical session GSA 2000 annl mtg; guest co-edtr for issue of Geoarchaeology. Addtnl Service: WV Assoc Prof Soil Scientists, President (98-99); co-orgnzr symp & co-edtr proceedings, Geoarchaeology of Glaciated Landscapes in the Northeast US, NY State Museum (00); orgnzr/leader SE Friends of the Pleistocene mtg & field trip (99); orgnzg comm chr, Pedological Perspectives in Archaeological Research symp, SSSA (93); orgnzg comm chr and proceedings co-edtr, Whole-Regolith Pedology symp, SSSA (92). Rsrch Int: Geoarchaeological context in geomorphic and pedological environments, upland geoarchaeology, precise time-calibration of pedological processes utilizing archaeological data.

**VICE-CHAIR:** Gary A. Huckleberry. Geoarchaeology; geomorphology, soils. Educ: BS Geography, Northern Arizona Univ; MA Geography, Univ of Wyoming; PhD Geosciences, Univ of Arizona. Prof Exp: Washington State Univ, Dept Anthropology, Assoc Prof (01-present), Asst Prof (95-01); Ariz Geol Survey, Geologist II (92-95); Soil Systems Inc., Staff Geoarchaeologist (86-89). Prof Affil: GSA member since 1988; SAA, AMQUA. GSA Service: Nominating Comm, Arch Geol Div, 99-02; fieldtrip coordinator, Arch Geol Div, 02-03. Rsrch Int: Surficial processes, climate change, human ecology.

**SECRETARY-TREASURER:** Andrea K. Freeman. Educ: BA Anthropology, BBA Business Admin, Southern Methodist Univ; MA Anthropology, PhD Anthropology, Univ of Arizona. Prof Exp: Univ of Calgary, Asst Prof (97-present); Desert Archaeology, Inc, Project Director & Geoarchaeologist (94-97); Consulting Geoarchaeologist (93-98). Prof Affil: GSA member since 94; AMQUA, Society for American Archaeology, Canadian Archaeological Assoc. GSA Service: AGD Secretary-Treasurer (01-03), website manager (01-03), newsletter editor (00-03). Addtnl Service: Co-Chr, Geoarchaeology Intersest Group, Society for American Archaeology. Rsrch Int: Geoarchaeology, hunter-gatherer archaeology, fluvial geomorphology, American Southwest and Northern Plains.

Ballot for the Election of 2003-2004 Officers for the GSA Archaeological Geology Division

Vote for no more than one candidate for each office by checking the appropriate box or by filling in the write-in space to vote for an individual not listed on this ballot. Your ballot must be postmarked by October 6, 2003, must be signed in the space provided, and must include your GSA member number in order to be valid. Election results will be announced at the AGD Management Board meeting at the GSA Annual Meeting in Seattle and will be posted on the Division website at <http://rock.geosociety.org/arch/>.

Chair:

- [ ] David L. Cremeens
- [ ] Write-In ________________________________

Vice-Chair:

- [ ] Gary A. Huckleberry
- [ ] Write-In ________________________________

Secretary-Treasurer:

- [ ] Andrea K. Freeman
- [ ] Write-In ________________________________

Your Name (printed) __________________________ Your GSA Member Number* _____________

Your Signature (required) __________________________ Ballot must be postmarked by October 6, 2003.

* Printed near the top of your GSA Today label.
Archaeological Geology Division
Geological Society of America
PO Box 9140
Boulder, CO 80301-9140
FUNDING OPPORTUNITIES FOR GRADUATE RESEARCH

Jonathan O. Davis Scholarship Fund.
Jonathan O. Davis, a prominent Quaternary geologist and geoarchaeologist (and active member of the Archaeological Geology Division), was tragically killed in an auto accident in December, 1990. His family, colleagues, and friends have established an endowment which provides 1) a $3,750 annual national scholarship plus 2) a $1,475 stipend for a University of Nevada, Reno, student. The national scholarship, administered by DRI's Earth and Ecosystem Sciences, is open to graduate students enrolled in a MS or PhD program at any U.S. university. The stipend is open to graduate students enrolled in a MS or PhD program at the University of Nevada, Reno. Applicants must be pursuing research with a geologic component or that demonstrates a strong reliance on geological techniques. Applicants must submit a description of the thesis/dissertation research that clearly documents its geologic orientation. Applications must be postmarked by February 2 so that the scholarship can be used during the subsequent summer. For more information contact: Dr. Michael Auerbach, Executive Director, Division of Earth and Ecosystem Sciences, 2215 Raggio Parkway, Reno, NV  89512. To help the endowment grow, contact Michael Auerbach <auerbach@dri.edu>.

GSA Sectional Grants.
Four of the six GSA sections offer grants to student members of GSA who are enrolled in institutions within their respective section geographical boundaries. Contact the section secretaries for the North-Central, South-Central, Northeastern and Southeastern sections for application information or consult the website: www.geosociety.org/profdev/grants.htm

University of Arizona IGERT Award for Archaeological Science.
The University of Arizona is pleased to announce that the Integrative Graduate Education and Research Traineeship (IGERT) Program of the National Science Foundation has awarded the University of Arizona a five-year grant for graduate training in Archaeological Sciences. The award is for $2.95 million over 5 years, more than 80% of which will be allocated to graduate student support in the form of stipends, full tuition, medical insurance, funds for travel, and student internships in laboratories elsewhere. The program will also fund short courses by visiting specialists in archaeological sciences and internships for high school science teachers and minority undergraduates in University of Arizona laboratories.

The full title of the program is “Integrated Graduate Training in Archaeological Sciences”. The PI is John Olsen (Head, Dept of Anthropology); co-PI’s are Jeff Dean (Laboratory of Tree Ring Research) and Joaquin Ruiz (Dean of Science). The proposal was submitted on behalf of a group of 28 individuals from five academic units (Anthropology, Physics, Geosciences, Materials Science and Engineering, Laboratory of Tree-Ring Research), the University of Arizona Graduate College, two private companies (Desert Archaeology Inc. and Statistical Research Inc.), and the U.S. Geological Survey.

The first graduate student intake will be in August 2003. Students may be admitted through any of the participating academic departments and would receive their doctoral degree in that discipline. The due dates for applications for admission vary by Department. All IGERT-funded students must be U.S. citizens or permanent residents. Awards to incoming students will be for one year, with a second year of funding contingent upon satisfactory progress. Students already enrolled at the University of Arizona may also apply for support. No student will receive more than two years of full funding. We expect to be able to support between 12 and 15 students per year.

The program will have three major foci, to which all students will be exposed before specializing in one or more of them. They are: (1) chronometry, (2) past environments and (3) ancient materials and technologies.

A website at http://datamonster.sbs.arizona.edu/IGERT/ is under construction. It will include a list of all participating faculty and their areas of research as well as links to the websites for participating Departments.

For further information, please contact the IGERT coordinator, Dr. David Killick at (520) 621-8685; <killick@u.arizona.edu>.

Research Awards for Graduate Students in Archaeology.
The Laboratory for Archaeological Chemistry, University of Wisconsin-Madison.

The Laboratory for Archaeological Chemistry at the University of Wisconsin-Madison is initiating an annual program of research award grants to graduate students in archaeology programs around the world. The Laboratory for Archaeological Chemistry has been involved in the study of questions of archaeological interest for many years. The primary focus of research in the laboratory is on the characterization of prehistoric bone, soils, and pottery. A variety of other materials including stone, dyes, organic residues, metals and glass are also investigated. Instrumentation in the lab includes a (1) Inductively Coupled Plasma - Atomic Emission Spectrometer for the...
rapid elemental characterization of a variety of materials with a resolution in parts per million, and (2) Finnigan Element Inductively Coupled Plasma High-Resolution Mass Spectrometer for isotopic and elemental characterization of many materials, often at the parts per billion level. This instrument incorporates laser ablation as a sample introduction technique appropriate for many solids and for small or fragile samples. In addition, the lab has access to a variety of other instrumentation and equipment on campus that is often used in our research.

Applications for the award should contain (1) a three-page letter from the applicant containing the specifics of the research and the analyses involved, (2) a curriculum vitae of the applicant, (3) a tentative table of contents for the dissertation, and (4) a letter of recommendation from the major advisor. The letter of application should contain detailed information on the research project, the kinds of analyses involved, the number of samples and analyses required, availability of samples with letter(s) of permission, if appropriate, and a discussion of the importance of the analysis to the proposed research. This letter should also provide a timetable for research and completion of the project. Discussions with the lab staff are recommended prior to application to ensure that the project meets award criteria and employs services available in the Laboratory for Archaeological Chemistry. There is no form for applications.

One award will be made each year consisting of analytical services involving elemental or isotopic measurements available with Laboratory for Archaeological Chemistry instrumentation. The lab encourages students to participate in analyses, where possible, in order to learn and understand the methods employed. The award will be made by the staff of the Laboratory for Archaeological Chemistry and major criteria for selection will be the significance of the research question, feasibility of the project, and impact on the student and the field.

Deadline: January 1st for awards beginning in September 1st of the same year. The award will be announced on March 15th each year. Awards should be appropriately acknowledged in any dissemination of results of the analyses and copies of resulting publications should be provided to the laboratory for the files.

Questions and Applications should be addressed to T. Douglas Price or James H. Burton, Laboratory for Archaeological Chemistry, University of Wisconsin-Madison, 1180 Observatory Drive, Madison WI 53706 USA. Phone: 608-262-2575 (tdp), 608-262-0367 (jhb), 608-265-4216 (fax). Email: tprice@facstaff.wisc.edu or jhburton@facstaff.wisc.edu. For further information on the Laboratory for Archaeological Chemistry, please see our web site at www.wisc.edu/larch/aclab/larch.htm.

**Geochron Laboratories.** Each year, Geochron Laboratories awards research grants to graduate students enrolled in academic institutions around the world. The awards consist of analytical services performed free of charge for the winner of each category. The deadline for applications is May 1st. Early application is suggested to assist us with prompt evaluation and notification of winners. The four separate awards are offered by Geochron Labs in an effort to encourage the application of isotopic analysis techniques to solve original and significant problems. The awards consist specifically of the following services:

**K-Ar age determinations:**
Up to five (5) age determinations using the K-Ar method.

**14C age determinations:**
Up to eight (8) conventional 14C age determinations or three (3) AMS age determinations or some combination of the two.

**Stable Pb or Sr isotopic analyses:**
Up to five (5) isotopic analyses of either stable Pb or Sr.

**Stable Isotope Ratio Analyses:**
Up to $1,500.00 in stable isotope analyses, of any variety or combination (except hydrogen and oxygen on silicates), based on our published prices.

There will be at least one award in each category receiving applications. We may select more than one winner in any category, at our option. The various categories cannot be combined in the same proposal, although separate proposals by the same applicant are welcome and will be judged independently in their respective categories. Contact us for further information about the exact nature of the services available.

**Competition Rules**

All applicants must be graduate students in good standing at U.S. or foreign accredited academic institutions.

Applicants must submit their name, address, telephone number, institutional affiliation, field of specialization, as well as their graduate supervisor's name, address, and telephone number. The category of analysis should be specified and the problem to which the analyses will be applied should be accurately described in less than 500 words, including evidence that the application of the analyses to be awarded is likely to solve the problem. Additional documentation, references, reprints, maps, etc., may be included separately. Supplementary material will not be returned, so please send copies. All entries must be written in English.
Applications must be received at Geochron no later than May 1st. All entries will be judged on the basis of originality, actual availability of appropriate materials for analysis, significance to the field of study, and probability of a solution by the analytical method chosen and the amount of work to be awarded.

Winners of each award will be notified by June 30th. Please give a summer address if you expect to be away from your school address in June. Samples for analyses must be submitted before the end of the calendar year and the analyses will be completed within approximately 90 days of receipt. Analytical results will be reported on our standard forms. It is expected that the award will be appropriately acknowledged in any thesis or subsequent publications that utilize data provided under the award, and that copies or reprints of such publications will be sent to Geochron for our records.

Send applications to: Research Awards, Geochron Laboratories, 711 Concord Avenue, Cambridge, MA 02138-1002 U.S.A.

DIVISION NECROLOGY LIST

In the last issue, we inadvertently left a name off the necrology list. Charles Vitaliano, one of the founding members of the Archaeological Geology Division, passed away in the Spring of 2001. Many thanks to Floyd McCoy for providing this information.

A NOTE FROM THE NEWSLETTER EDITOR

The AG Division newsletter is always better with your contribution. The two sections titled “News from the Membership” and “Featured Research” are good ways of letting other members know about your current research. PLEASE SEND ME MATERIAL FOR THE NEWSLETTER!! My e-mail address is: <freeman@ucalgary.ca>

NEWS FROM THE MEMBERSHIP

A team of earth scientists from Canada, France, Italy, Switzerland and United States are presently studying submerged sites in Abu Qir Bay and Alexandria's Eastern Harbour off Egypt. The participants include petrologists (T. Jorstad, J.-D. Stanley), paleontologists (A. Bandelli, M. P. Bernasconi, R. Mellis, N. Pugliese), geochemists (J. Dominik, K. Hayes, F. Monna, E. Reinhardt) and geophysists (G. Schnep and others). The project, coordinated at the National Museum of Natural History, Smithsonian Institution, Washington D.C. by J.-D. Stanley, focuses on problems pertaining to the timing and natural processes that lead to the demise of Greek transit ports (Menouthis and Herakleion) in Abu Qir Bay, and Alexandria's royal quarters. The sites in Abu Qir Bay were active from the 6th century BCE to about the 8th century CE. The Smithsonian group is coordinating with Franck Goddio and his under-water exploration group, who are excavating the sites off the Nile delta. Work to date indicates that natural events, including major Nile floods, growth faults, and possible tsunamis likely played a role in site submergence to depths of 5 to 7 m. Ongoing projects include vibrocoring and high-resolution subbottom profiling, in conjunction with underwater archaeological excavation. Research results are presently being compiled as chapters in a series of books edited by Goddio and to be published, starting this winter, by Periplus in London.

GEOARCHAEOLOGY: AN INTERNATIONAL JOURNAL

Geoarchaeology is published bimonthly and has a broad interdisciplinary scope dealing with the understanding of archaeological sites, their natural context, and the material artifacts recovered from them. Manuscripts may include subjects from disciplines within the earth sciences (e.g., geography, pedology, climatology, geology, oceanography, geochemistry, geochronology, and geophysics) or those from biological sciences. The editors are particularly interested in manuscripts that bear upon site-formation processes. Members of AGD are encouraged to submit manuscripts. They should be sent to: Rolfe Mandel, Editor-in-Chief, Department of Geography, University of Kansas, Lawrence, KS 66045-2121 (tel.: 785-228-0571, fax: 785-228-0587).

Members of the Archaeological Geology Division and the Quaternary Geology & Geomorphology Division of GSA qualify for the group rate of $105/year. The rate for Division members outside North America is $153. The offer is for personal subscriptions only (subscription orders must include GSA membership number). Payment can be sent directly to: Subscription Dept, John Wiley & Sons, Inc, 605 Third Ave, New York, NY 10158. For subscription inquiries, please call 212-850-6645 or e-mail: SUBINFO@wiley.com. U.S. members should include appropriate state sales tax, and Canadian members should add 7% GST, which Wiley is obliged to collect.
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Notes and Resources

Directory of Graduate Programs in Archaeological Geology

The Directory of Graduate Programs in Archaeological Geology and Geoarchaeology is published by the Archaeological Geology Division of the Geological Society of America. It is accessible through the GSA Web site at: <http://rock.geosociety.org/arch/>. Rolfe Mandel took over the responsibility of updating Rip Rapp’s Directory. For a free hard copy of the Directory, contact Rolfe <mandel@falcon.cc.ukans.edu>.

Society for Archaeological Sciences

The SAS exists for the purpose of bringing together those concerned with natural science applications in archaeology. It sees its principal role as fostering
communication and interdisciplinary collaboration and cooperation. Regular membership in the SAS includes a subscription to the Journal of Archaeological Science (published by Academic Press) as well as subscription to the SAS Bulletin. Regular membership is now $75/yr. For more information, write: SAS, Membership, Radiocarbon Laboratory, Univ of California, Riverside, CA 92521.

**Miscellaneous Notes**

First published in 1974, "*The Benthos of Lakes*" by Ralph O. Brinkhurst provides a detailed review of the state of research into the fauna of lake bottoms for scientists and students of limnology. This book became a classic in benthic research and limnology, and still remains the only comprehensive review of the field on a world-wide basis. The Blackburn Press recently brought the book back into print with a new foreword from the author, making it again available to scholars, students, libraries and researchers who would like to own or replace a copy of this invaluable book. For more information, see: <http://www.blackburnpress.com/benthosoflakes.html>.

Originally issued in 1948, "*Woody-Plant Seed Manual*" (Miscellaneous Publication No. 654 of the U.S. Department of Agriculture) was the first comprehensive handbook on the seeds of trees and shrubs in the U.S. The manual was developed in response to a need for reliable information, based on field practices and laboratory tests, to guide early reforestation efforts. This manual has been brought back into print by The Blackburn Press, making it available to libraries, archaeologists, foresters, horticulturists, nurserymen and others who would like to own or replace a copy of a classic work in the field. For more information, please see: <http://www.blackburnpress.com/woodplanseed.html>.

The journal JONAS (Journal of Nordic Archaeological Science) publishes papers within the field of archaeological science, with an emphasis on the Nordic-Baltic region. The aim is to solve archaeological problems through the integration of a wide range of scientific and technical methods, e.g. soil chemistry, bone chemistry/DNA, palaeopathology, archaeobotany, diet, metallurgy, textiles, analyses of the structure of various materials, prospecting, preservation of objects etc. The journal is addressed to archaeologists in general and any scientist working in an interdisciplinary context with an archaeological connection or interest. By placing this emphasis on problem solving and integration we hope to fill a gap between journals on general archaeology and those devoted exclusively to archaeological science. All articles are peer reviewed by distinguished scientists. Notes for Authors are found on the JONAS homepage, http://www.archaeology.su.se/arklab/jonas/authinfo.html

JONAS is published yearly, and the subscription fee is 125 SEK (c. 14 EUR/USD), excluding postage and packing. Students are offered a reduced subscription fee of 50 SEK (<6 EUR/USD). Order and subscription details can be found on the JONAS homepage, http://www.archaeology.su.se/arklab/jonas/subscribe.html

**On the Web**

**New oxygen isotope URLs:**
Oxygen isotope data: http://isohis.iaea.org/GNIP.asp
Global estimated mean annual d-D and d-18-O of precipitation: http://es.ucsc.edu/~gbowen/OIPC_Main.html

**Postglacial Flooding of the Bering Land Bridge: A Geospatial Animation**

Geographic Information Systems (GIS) were used to create movies showing how the Bering Land Bridge evolved after the Last Glacial Maximum, about 21,000 years ago. Global sea level at that time was approximately 120 m (400 ft) lower than today. The Land Bridge existed as a vast tundra plain connecting Asia and North America. As the world's glaciers and ice sheets melted over the following thousands of years, rising sea level flooded the Land Bridge - blocking migration routes for animals and humans.

The geospatial visualization was created to assist with scientific research, education, and outreach. It is based on the best available digital information, and reveals large-scale patterns of shifting coastlines and environments as the land bridge evolved. For more information, and to view the animation, see: http://instaar.Colorado.EDU/QGISL/bering_land_bridge

**Paleoecological Software Available**

Those of you interested in software for developing palaeoecological transfer functions or plotting stratigraphic diagram might want to take a look at the new program C2, which is now available for download at: http://www.campus.ncl.ac.uk/staff/Stephen.Juggins/software/c2home.htm

C2 Version 1.3 is a Windows 95/98/NT/2000/XP program for analysing and visualising palaeoenvironmental data. The main features are: (1) develop, diagnose and apply transfer functions using weighted averaging (WA), partial least squares (PLS), weighted averaging partial least squares (WAPLS), Imbrie & Kipp factor analysis,
correspondence analysis regression (CAR), principal component analysis regression (PCAR), modern analogue technique (MAT), and maximum likelihood regression and calibration (ML), all with leave-one-out, bootstrap or n-fold leave-out cross-validation and sample-specific reconstructions errors, (2) create x-y scatter, line and bubble plots to visualise species environment relationships and to diagnose fitted models, (3) plot stratigraphic diagrams with bar, line, silhouette and symbol graphs, overlay multiple series on the same axes, each with optional error bars, and the ability to combine multi-proxy data from different datasets measured at different time or depth intervals in the same diagram, (4) scale graphics in absolute units (mm) or fit to page, and cut & paste diagrams to a favourite drawing package, and (5) import / export data to / from a range of common formats including Excel, Access, Tilia and Cornell, and ability to edit, sort, transform and merge datasets. A more detailed description of the program and a user guide can also be found on Steve Guggins’ web pages. The program download consists of a single executable that will install the program, help files, user guide, tutorial, and example datasets. C2 replaces my previous programs CALIBRATE, WAPLS, MAT and PDP.

C2 is free to download and use, but the data analysis and graphics functions are restricted to a maximum number of 75 samples. A license file that removes this restriction must be purchased to use C2 with larger datasets. The data editing functions in C2 are not size-restricted.