



SAS Bulletin

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From the General Secretary

This summer I took over the reigns as General Secretary of the Society for Archaeological Sciences. Erv Taylor had been General Secretary of the SAS since its beginnings in 1977. I feel a bit daunted trying to fill Erv's shoes (or perhaps he wears sandals in California), but I'll do the best I can.

Erv has labored long and hard on behalf of our organization. I am thankful to him for that service, as well as for helping my professional development by providing societal infrastructure to support the kind of work I most love to do.

I have enjoyed being a member of the SAS for over 20 years, and I've served as Secretary/Treasurer, Vice-President, President, associate editor (meetings calendar) for the *Bulletin*, and editor of the *Bulletin*. I look forward now to serving the membership and elected officers as General Secretary.

I have been in the Department of Geosciences at F&M for 20 years. My research specialties are archaeomagnetism and geophysical surveys. I have also worked on modeling of atmospheric radiocarbon fluctuations. As I currently am teaching an undergraduate course on archaeometry for the third time, I'm also interested in pedagogical approaches to the teaching of archaeometry—when should it be taught to students, in what departments, with what approaches? I hope to co-organize a symposium on this topic at a future SAA meeting.

Another transition that the SAS has made is to move most responsibilities for banking and membership to my office. So if you have any questions about membership, address corrections, subscriptions to the *Journal of Archaeological Science* and *Archaeometry*, I'll be your primary contact. Email is my favorite form of communication, although the occasional phone call or old-fashioned letter still works (as do phonograph records).

Over the past few months I have been getting familiar with our bank accounts, our *Paradox* databases, working with representatives of Academic Press (*JAS*) and Blackwell (*Archaeometry*), and sorting out miscellaneous subscription issues. I have been slow to learn *Quicken*, but that's still to

come. Many thanks to previous and current SAS officers Christine Prior and Felicia Beardsley for setting up our databases, credit card and banking systems, providing instructions, and moral support.

There are several goals I'd like to see the SAS continue to work on. I'd like to update our email database so we have an effective way of rapidly communicating with our membership. We should continue the R.E. Taylor student poster awards at the SAA and Archaeometry Symposia, and to sponsor at least one symposium per year at the SAA. SAS currently has 354 members. Let's get that above 400, and focus on new members outside the United States. We should also strengthen our international presence via relationships with the Symposium on Archaeometry and the major journals of archaeological science. We need to re-evaluate where our series on *Advances in Archaeological and Museum Science* is going. Perhaps as part of this series, I'd like to see us consider the possibility of an edited undergraduate/graduate level textbook in archaeometry.

Please let me know your thoughts on how we can improve our organization to better serve your needs as members and the archaeometric community as a whole. I hope to see you in Milwaukee and Hefei.

Rob Sternberg

12 November 2002

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IGERT Award to University of Arizona for Archaeological Science

The Integrative Graduate Education and Research Traineeship (IGERT) Program of the National Science Foundation has awarded a five-year grant for graduate training in Archaeological Science to the University of Arizona. Final budget details are still being worked out, but they expect to have about \$2.4 million over 5 years, more than 80% of which is allocated to direct graduate student support in the form of stipends, full tuition and other expenses. Funding is also provide for student internships in archaeometric laboratories and for short courses to be taught by visiting specialists in archaeological sciences.

The full title of the proposal is "Archaeological Sciences: An Integrated Approach to Graduate Training in the Human Use of Ancient Landscapes through Chronometry, Paleoecology and Technology." The PI is John Olsen (Chairman, Department 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 for 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 PhD degree in that discipline. All IGERT-funded students must be U.S. citizens and would typically receive an initial two years of full funding with a possibility of a third.

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

The participating individuals and their relevant interests are as follows: Jeffrey Altschul (CRM archaeology, integrating diverse chronometric techniques, provenance of materials); Lane Beck (bioarchaeology, human osteology); Julio Betancourt (paleoecology, paleoclimatology, plant macrofossils); Dunbar Birnie (materials science, ceramics); Robert Butler (paleomagnetism, archaeomagnetism); Gary Chandler (electron microscopy); Gary Christopherson (geographic information systems); Andrew Cohen (paleolimnology, stratigraphy); William Davenport (extractive metallurgy); Owen Davis (paleoecology, palynology); Jeffrey Dean (dendrochronology, dendroclimatology); William Doelle (CRM archaeology, integrating diverse chronometric techniques, provenance of materials); Douglas Donohue (accelerator mass spectrometry of radiocarbon and other cosmogenic isotopes); Suzanne Fish (ancient agriculture; pollen, phytoliths, macrobotanical remains); Vance Holliday (archaeological geology, stratigraphy, soils); Takeshi Inomata (tropical agriculture and paleoecology);

Timothy Jull (accelerator mass spectrometry of radiocarbon and other cosmogenic isotopes); David Killick (ancient mining and metallurgy, ceramic materials, provenance); Steven Kuhn (lithic analysis, statistical analysis); Barbara Mills (technology and provenance of ceramics, seriation); Nancy Odegaard (conservation of organic and inorganic materials); John Olsen (landscape archaeology, remote sensing); Jay Quade (radiometric dating, stable isotopes, quaternary geomorphology, soils); Joaquin Ruiz (geochemistry, heavy isotopes); Michael Schiffer (archaeological method and theory, experimental archaeology, ceramic technology); Ronald Towner (dendrochronology and dendroclimatology); Daniela Triadan (provenance of ceramics; statistical analysis) and Maria Teresa Velez (Associate Dean, Graduate College).

For further information please contact the IGERT coordinator, Dr. David Killick at (520) 621-8685 or through email (killick@u.arizona.edu), or visit the IGERT website: <http://datamonster.sbs.arizona.edu/IGERT/>

MIT's Summer Institute in the Materials Science of Material Culture [SIMSMC] 9-20 June 2003

MIT will convene the second annual Summer Institute in the Materials Science of Material Culture [SIMSMC] during the two week period, 9 - 20 June 2003. The job of the Summer Institute is to encourage and assist faculty at liberal arts colleges in introducing materials science and engineering to their undergraduate curricula.

Summer Institute participants are a group of fifteen faculty members drawn primarily from undergraduate liberal arts institutions that do not offer engineering. They are chosen each year to represent a broad range of fields, including: anthropology, archaeology, art history, biology, chemistry, classics, earth sciences, environmental science, geography, history, physics. A few engineering faculty members may round out the group.

Working together with these colleagues, the four MIT faculty members who designed the SIMSMC - two materials archaeologists and two materials scientists - demonstrate how undergraduate teaching can incorporate the subject matter of materials science in imaginative and intellectually stimulating ways that are congruent with and relevant to the pursuits of the wide spectrum of disciplines common to liberal arts institutions. Archaeological science is the vehicle through which the SIMSMC instructors accomplish this educational goal.

The Summer Institutes concentrate on the materials processing technologies that transform natural and synthetic materials into cultural objects. Because the research of the MIT instructors has focused heavily on the manufactures of ancient and pre-industrial societies, the discipline of archaeology has become a vehicle and context for integrating materials science and engineering fully into our study of the material

world of the past. The SIs also consider the production of material culture by contemporary societies, including that category of objects we denote as “art”.

Each week of the two-week SI is organized as a specific materials science & engineering/material culture module, with morning lectures and afternoon laboratory sessions. No more than two modules are considered during the course of any SI so that participants gain intense exposure to the materials science, social science/humanities, materials processing, and laboratory analytical components of the subject matter.

The two modules offered during the June 2002 SIMSMC were: (1) Building Bricks and Monumental Glue (Prof. Linn Hobbs), and (2) The Power of Metal in the Ancient Andean World (Prof. Heather Lechtman). Other modules that may be offered in June 2003 include: Acoustics and Culture in Mesoamerica (Prof. Dorothy Hosler and Prof. Samuel Allen); Glass in the Mediterranean World (Prof. Linn Hobbs); Rubber Processing in Ancient Mesoamerica (Prof. Dorothy Hosler and Prof. Christine Ortiz); Damascus and Pattern-Welded Steels (Prof. Samuel Allen).

The broad aim of the Summer Institutes in the Materials Science of Material Culture is to promote infrastructure at liberal arts institutions that will dramatically affect the educational experience of undergraduate students by stimulating teaching that links science, engineering, social science, and humanities. We aim to accomplish this broad objective by providing a template for such experience.

Our template joins the fields of archaeology and materials science and engineering to provide an integrated educational experience for students as they explore the relations between people and their material world. Art history, classics, environmental science, geography, history and other fields are all excellent vehicles for achieving this goal. The SIMSMC is a liberal arts guide to planning effective integration of these areas with materials engineering.

Participant expenses are fully paid by SIMSMC: round-trip travel to MIT, housing on campus, and meals.

Visit the SIMSMC web site [<http://web.mit.edu/materialculture/www>] for an on-line application form and detailed information on Requirements for Applicants, the 2003 Modules, the Instructors, Travel & Housing, and how to contact us with inquiries about the program.

The MIT Summer Institute in the Materials Science of Material Culture is supported by an educational grant from the Division of Materials Research of the National Science Foundation.

Updates on Science at the Smithsonian, the British Museum, and in Australia

Charles C. Kolb

The report from Jerry Sabloff's “blue ribbon” committee regarding “science at the Smithsonian” (and particularly the SCMRE) will not be presented until early 2003. However, there is good news based on two other studies summarized in an

article in The Washington Post, “Revered Science: Panels Back Smithsonian Funding Setup,” by Jacqueline Trescott (Washington Post Staff Writer), Friday, November 1, 2002, Page C01. The scrutiny of the Smithsonian's science budget came after the Office of Management and Budget (OMB) suggested shifting the money to the National Science Foundation. Under the proposal, Smithsonian researchers could apply for grants from the NSF but wouldn't be guaranteed anything. Ordered by the White House, the two studies, by the National Academy of Sciences and the National Academy of Public Administration, considered the strategy and reached identical conclusions that this was a “bad idea.” The withdrawal of core funding would probably disrupt the Smithsonian's science work. Shifting the money to the NSF would undercut the Smithsonian's basic mission and jeopardize the reputation of the institution's science operations, the studies said. The two reports also agreed that the Smithsonian's administration should champion its scientists and their work. “Important and often unusual research is being conducted by the National Museum of Natural History, the National Zoo, the Smithsonian Center for Materials Research and Education [SCMRE] in Suitland, the Smithsonian Astrophysical Observatory in Cambridge, Massachusetts, the Smithsonian Environmental Research Center in Edgewater and the Smithsonian Tropical Research Institute in Panama,” the studies concluded.

The new undersecretary of science at the Smithsonian, David L. Evans, endorsed the recommendations of the two boards. “Each [board] commented that Smithsonian science is one of the best-kept secrets in town,” Evans said. Among the specific examples cited was one about the SCMRE, where “Smithsonian scientists have developed ways to conserve all sorts of artifacts, from pottery to photographs.” Evans said the endorsements did not consider whether the Smithsonian would expand its scientific research. That question is to be addressed in a blue-ribbon report that is due early next year. This third assessment of science at the Smithsonian was organized by the Smithsonian Board of Regents after initial moves to cut some of the research divisions by Smithsonian Secretary Lawrence Small were criticized by members of Congress and international scientists, as well as the institution's scientific staff. However, the two studies recommended that the Smithsonian correct inconsistencies in the way it reviews its research and its individual scientists, and urged the Smithsonian to set up external committees to scrutinize all six science centers on a regular basis.

On 24 October, Louise Joyner (ljoyner@british-museum.ac.uk) Department of Scientific Research, The British Museum, reported the results of budget cuts that result, according to the British press, in the overall loss of 15% of the British Museum's staff and the curtailing of gallery hours. She wrote “we heard last week about the affected posts in Scientific Research here at the BM. It has come as something as a blow to us even though we knew it was going to happen. We are to lose 4 posts, one of which is a vacancy. We will lose 2 x Band 3 posts (one analytical and the other [in] metals) and our only Environmental Archaeologist, who will, with the support of the Union, be fighting this closure of this post and area of specialism (all scheduled to go by end March 2004). The admin[istrative]

structure will change as from January 2003. These closures amount to the full 28% cut in our staffing budget. We are still keeping a vacancy open, but when this will be advertised I don't know. Conservation fared much better and had something of a reprieve in terms of keeping on bench conservators. This has saved 8 posts and effectively gives Conservation the same percentage cut as other departments in the BM."

On 30 October 2002 Jock Churchman (Jock.Churchman@csiro.au) from CSIRO, Australia's Commonwealth Scientific and Industrial Research Organization (<http://www.csiro.au/>) wrote to the Clay Minerals Listserv (clayminerals-l@purdue.edu) to report the demise of the largest and oldest laboratory in Australia that conducted primary research on clays and clay minerals. He wrote, in part, "yesterday [29 October 2002], the managers of CSIRO Land and Water killed off the largest and oldest lab doing research on clays and clay mineralogy in Australia. This lab was the successor of the Mineralogy Section of CSIRO Division of Soils (which merged with CSIRO Division of Water Resources to form CSIRO Land and Water a few years ago). The lab has been one of the major centres of clay research in the world for more than 50 years. It is the lab in which Keith Norrish did his pioneering work on the chemistry and mineralogy of micas and on clay swelling and much else besides in mineralogy and X-ray studies. It is also the lab where Ted Radoslovich developed the idea of rotations of silica tetrahedra to explain how kaolinites can have a flat morphology when there is an inherent mismatch between octahedral and tetrahedral sheets. In this lab, Reg Taylor developed world-class expertise on iron oxides and Reg McKenzie likewise on manganese oxides, and it is here that Phil Slade has done so much careful and pioneering work on the structures of clay-organic complexes. This lab has a collection of clay mineral samples that may be unmatched anywhere. Nonetheless, it is to be closed down as a research facility."

What more can LA-ICP-MS do for archaeology? A short-term visitor program at California State University-Long Beach

Laser ablation-inductively coupled plasma-mass spectrometry (LA-ICP-MS) is a relatively new technique for chemical characterization of materials that has a great deal of potential for archaeological research. The technique is an extremely sensitive microprobe that can detect most elements of the periodic table in solid samples, with a minimum of sample preparation. Archaeological materials analyzed to date include ceramic slips, paints, and glazes, obsidian, jade, turquoise, chert, and metals. However, due to restricted access to instrumentation, archaeologists have yet to explore the full range of potential applications of LA-ICP-MS.

With funding from NSF, the Department of Anthropology and microanalysis facility at California State University-Long Beach will host short-term visits by archaeologists who wish

to explore new and potentially innovative archaeological applications of LA-ICP-MS. Projects are solicited from the US archaeological research community without restriction as to academic level (undergraduate through professional). Visits should be planned for one to two weeks, preferably during winter break, or during the summer months. Successful applicants will receive support for room and board and four to eight hours of instrument time per day during the project. Visiting investigators will work in collaboration with CSULB faculty and students.

To apply, send a brief (3–6 page) proposal outlining the project to: Hector Neff, Department of Anthropology, California State University-Long Beach, 1250 Bellflower Blvd., Long Beach, CA 90840-1003. Attached email submissions to hneff@csulb.edu are preferred. Proposals will be evaluated approximately every two months. Additional information may be requested based on review of the initial proposal. Any proposal will be considered acceptable if it contains a convincing statement of an archaeological question that potentially can be answered by LA-ICP-MS analysis, and the investigator demonstrates that he/she has access to the samples proposed for analysis. Beyond the basic criteria, proposals will be ranked in terms of their innovativeness, how important a contribution the project might make to the investigator's overall research program, and how important a contribution the project might make to anthropology/ archaeology generally. The overall goal of the program is to explore the broadest possible range of potential applications of LA-ICP-MS in archaeology.



George Bass Receives National Medal of Science and Technology

President George W. Bush presented a National Medal of Science and Technology to 20 of the nation's premier scientists and innovators, including George Bass, with Texas A&M University's Institute of Nautical Archaeology, for creating the field of nautical archaeology and thereby improving understanding of the histories of economics, technology, and literacy.

CalPal Upgrade

A new version of the program CalPal (The Cologne Radiocarbon Calibration & Paleoclimate Research Package, still called "Ghost of Edinburgh") is available on the web at <http://www.calpal.de>. The new version is designed to run under WIN2K/XP, as well as bug-fixed to run under WIN95/98. As in the past, CalPal allows the calendric age conversion of large 14C data sets, which are shown in graphic context with selected climate proxies, in the age range 0-50 ka (14C) resp. 0-500 ka (climate), with numeric precision 1 yr.

The new features include: enhanced graphic conversion (graphic export under different formats); 14C-data entry via ASCII or spreadsheet; graphic export in postscript quality via clipboard; radiocarbon database management (xls-import and SQL-dialogs); Climate Composer (mouse-controlled visual fine-tuning of climate proxies); extension of the palaeoclimate data base; 14C database cartography via PanMap (with courtesy of <http://www.pangaea.de>). The upgrade also includes a number of new radiocarbon analysis routines & dialogs, as well as some recently integrated climate proxies & archaeological 14C-databases:

Palaeoclimatology. 78 climate proxies (www.calpal.de/calpal/proxies.htm), including dust and 18O from Kilimanjaro and Huascarán Ice Cores (www.ngdc.noaa.gov/paleo/pubs/Thompson2002/Thompson.html).

Prehistoric Archaeology. Integration of Stage Three Project Palaeolithic 14C-Database (www.esc.cam.ac.uk/oistage3/Details/Homepage.html); Integration of Radon European Neolithic & Bronze Age Database (www.jungsteinsite.de/radon/radon.html).

General Radiocarbon Analysis. Completion of Dialogs for RealTime 14C-Calibration; First Edition CalCurveComparer; Historical CalDataSets INTCAL93, INTCAL86, SUESS (www.calpal.de/calpal/composer.htm).

Old/unchanged features are:

The manual remains in the traditional beta-state. The program output is referenced to the cal BC/AD scale. 14C Age conversion beyond 24 ka remains dedicated to the keen in heart. CalPal is scientific freeware.

We continuously acknowledge the support of many colleagues, institutions, and data centers, whose scientific results are redistributed in CalPal for the purpose of additional research in palaeoclimatology and prehistoric archaeology. When using CalPal and the data incorporated in CalPal, please always cite the original authors and the original references.

ICAZ 2002

David B. Landon, Associate Editor

The 9th Conference of the International Council of Archaeozoology (ICAZ) was held August 23-28, 2002, at the University of Durham, Durham, UK. The conference featured a wide range of papers on all aspects of zooarchaeological research, with many of interest to bioarchaeologists. Full text

abstracts of all of the sessions, papers, and posters are available as a downloadable PDF file at <http://www.dur.ac.uk/ica2002/index.html>. The conference organizers are also planning a series of publications of the session papers through Oxbow Books.

ICAZ 2002 Sessions included: 1) The role of zooarchaeology in wildlife conservation issues; 2) Beyond calories: The zooarchaeology of ritual and religion; 3) Human and animal migration and colonization; 4) Ageing and sexing; 5) Beyond 'interesting specimens': palaeopathology and its contribution to the study of animal husbandry; 6) Milk, milking and dairying; 7) Recent advances in the analysis and interpretation of animal diet and management; 8) Palaeoeconomics of animal fats; 9) Integrating zooarchaeology; 10) Archaeo-malacology; 11) Marine mammals; 12) Taphonomy; 13) General session; 14) Dogs and people in social, working, economic or symbolic interaction; 15) Behavioural variability in the so-called marginal areas: A zooarchaeological approach; 16) New methods and the first steps of mammal domestication; 17) Neanderthal Ecology; 18) Equations for Inequality. The Archaeozoology of Identity, Status and other forms of Social Differentiation in former Human Societies; 19) Archaeozoology and archaeological heritage management; 20) Equids in time and space; 21) Beyond 'Affluent Foragers': the development of fisher-hunter societies; 22) The contribution to zooarchaeology of fossil and modern non-anthropogenic bone accumulations; and 23) Coastal adaptations in arid environments.

Workshop on Geophysical Methods in Archaeology

Contributed by Prof. Dr. Mary Kovacheva, Geophysical Institute, Bulgarian Academy of Sciences, Block 3, Acad. Bonchev str.1113, Sofia, Bulgaria. Email: Marykov@geophys.bas.bg

Under the framework of the 3rd Balkan Geophysical Congress and exhibition held in Sofia, Bulgaria (24-28 June, 2002), a workshop "Geophysical Methods in Archaeology" was organized. In four sessions, 15 oral presentations and 2 posters were discussed comprising two main geophysical fields connected with the archaeological sciences: archaeomagnetism, and all kinds of geophysical methods used in archaeological prospecting. Participants in the workshop were mainly from the Balkan countries (Turkey, Greece, Bulgaria, Romania, Yugoslavia and Albania) with valuable contributions from eminent archaeomagnetists from France, Switzerland and Germany.

The contributions in archaeomagnetism can be divided into three groups:

Methodological problems. *Philippe Lanos*: Bayesian estimation of archaeomagnetic reference curves: Applications to dating and chronological interpretation; *Mary Kovacheva and Yavor Bojadziev*: Towards archaeomagnetic reference curves elaboration for the prehistory; *Maria Kostadinova et al.*: The influence of impregnation of archaeomagnetic

samples with water glass on the magnetic susceptibility and remanence.

New results. *Elisabeth Schnepf*: Direction of the EMF obtained from multi-level fireplaces of the Bronze age site Rodenkirchen (Germany); *Elisabeth Schnepf and Philippe Lanos*: The EMF in Lübeck (Germany) between ~1300 and ~1800 AD.

Archaeomagnetic dating. *Mary Kovacheva, Ian Hedley, Neli Jordanova, Maria Kostadinova and Valentin Gigov*: Archaeomagnetic dating of Swiss and Bulgarian archaeological sites.

Years of accumulated experience in archaeomagnetic studies revealed the major methodological problems connected with a reliable recovery of past geomagnetic field variations. These are: inaccuracy in archaeological dates given to the reference sites, and the methods in smoothing the raw data with a variable density over time. The new Bayesian hierarchical model (Philippe Lanos) using penalized maximum likelihood leads to smoothed reference curves with functional confidence envelopes on them. They are used for dating purposes in archaeology. The calendar dates of undated archaeological features are presented in the same way as those that arise from ^{14}C dating.

The newly studied dated archaeological materials from Germany (Elisabeth Schnepf) for determining the past geomagnetic direction and intensity valuably adds to the European archaeomagnetic database.

The large variety of geophysical methods used for discovery of the rich archaeological heritage of the Balkan Peninsula was presented in three sessions. Special attention was given to large-scale electrical surveys carried out in Greece during rescue excavations (*Gr. Tsokas et al.*: A large scale electrical survey to map concealed antiquities in Marathon; *Vas. Karastathis, M. Arvanitis and E. R. Jones*: 3D structure of the Xerxes Canal. New data bolster the existence of the ancient canal.)

The geophysical exploration of the Bulgarian Black Sea coast enables its geomorphological reconstruction (*Mihail Georgiev, Kiril Velkovski and Dimitar Stoev*: Development of southern Bulgarian Black Sea coast during the last 8000 years). This reconstruction is very important in connection with many the Bronze Age sites (3000-1000 BC) recently discovered underwater. The application of different geophysical tools such as sidescan sonar and geo-radar for the discovery of sunken archaeological sites is quickly developing.

Along with the classical methods used in archaeological prospecting such as resistivity, seismic tomography survey, magnetic gradiometry, and so on, some new ideas were reported such as the spectral induced polarisation method (*Norbert Schleifer et al.*: Applying the spectral induced polarization (SIP) method for the detection of a Bronze-Aged Plankway (1500-1400 BC)).

In conclusion, the workshop on Geophysical Methods in Archaeology was a very fruitful meeting among the geophysicists from Europe dealing with different archaeological problems. It proves once more the mutual benefit of such interdisciplinary studies for revealing the rich human heritage in southeastern Europe – the Balkans.

PALANTH - A New Online Journal

The editors are very pleased to announce the arrival on the Web of a new scientific journal called PALANTH - International Journal of Palaeoanthropology, and in so doing, to come up with their first, preliminary call-for-papers.

Clicking on <http://www.palanth.com/preview/> will give access to a poster-like presentation of what the *Journal* is all about in terms of its goals and purposes, its scope and structure, and its original presentation and design. In addition, they have made available a downloadable (PDF) version of the poster that can be passed around to colleagues, students and other interested parties.

As indicated in the poster, the regular (quarterly) publication schedule (to begin early in the year 2003) will be preceded by an Inaugural Issue - a demonstration of the Journal's overall demarche or approach - that will be freely accessible to all individuals interested in palaeoanthropological international discourse and ongoing developments. This issue was scheduled to be online by mid December 2002.

The only means of subscription presently available through the poster (PDF subscription form) is by regular mail. An electronic version that will allow credit card payments is now undergoing tests and will soon be circulated.

The members of the Editorial Committee of PALANTH are Margherita Mussi, Raymond Le Blanc, Nicolas Rolland, Greg Laden, Ken Antanaitis-Jacobs, and Jacques Cinq-Mars.

For further information, please send an email to: info@palanth.com or Jacques.cinqmars@sympatico.ca

Archaeological Ceramics

Charles C. Kolb, Associate Editor



This issue includes eleven topics: 1) SAA announcement; 2) summaries about new books related to archaeological ceramics; 3) other books; 4) a new e-journal and newsletter; 5) exhibitions and catalog; 6) research opportunities; 7) professional meetings held; 8) forthcoming professional meetings; 9) databases; 10) lost type collections; and 11) miscellaneous news.

SAA Announcement: Nominations for the Award for Excellence in Ceramic Analysis

The Society for American Archaeology has called for nominations for the Award for Excellence in Archaeological Analysis; there is a *6 January 2003 deadline* for nominations. This award recognizes the excellence of an archaeologist whose innovative and enduring research has made a significant impact on the discipline. Nominees are evaluated on the basis of their demonstrated ability to successfully create an interpretive bridge between good ideas, empirical evidence, research, and analysis. The award rotates on a cyclical basis with unrestricted or general, lithic analysis, and ceramic analysis.

The award in 2003 will be for ceramic analysis. A letter of nomination, curriculum vitae, and other relevant documents (such as letters of support) are required. For additional information, contact Nancy Benco, Department of Anthropology, 2110 G Street NW, George Washington University, Washington DC 20052, telephone 202/994-6075 or e-mail benco@gwu.edu

New Books

Archaeometry Issues in Greek Prehistory and Antiquity, I. Bassiakos, E. Aloupi and Y. Facorellis (editors), Athens: Hellenic Society for Archaeometry and the Society of Messenean Archaeological Studies, 2001, 820 pp., was published in late June 2002. There are ten chapters each containing from 2 to 28 papers: Chapter 1: Dating - Authenticity (6 papers, 2 on ceramics); Chapter 2: Paleoenvironment - Anthropological Studies (5 papers); Chapter 3: Geophysical Prospection (5 papers); Chapter 4: Materials Characterisation: Technology - Provenance - Weathering - Conservation (Part A: Marble and other stones, [5 papers]; Part B: Wall Paintings, Plaster and Glass [7 Papers, 1 on faience]; Part C: Ceramics [6 papers]; Part D: Metal Artefacts [6 papers, 2 on ceramics]; Part E: Organic Materials [4 papers]); Chapter 5: Ancient Quarries (4 papers); Chapter 6: Ancient Mines - Metallurgy (9 papers); Chapter 7: Technology and Trade in the Eastern Mediterranean during Prehistory (5 papers); and Chapter 8: Mathematical and Statistical Methods (2 papers). Among the 64 papers, 22 are written in English and the remainder in Greek followed by an English abstract and key words. Additional information about the structure and the contents of the book is provided in the website: <http://www.archaeometry.gr/publication/sybosio/index-eng.htm> Eleven of the 64 papers concern ceramic topics and five of the 11 are in English. I have included the authors' affiliations and their paper abstracts, as well as page numbers in the following summary of these contributions and indicated the language in which the article is written.

"Optical Luminescence: A Review of the New Dating Method for Ceramics for Archaeologists" by I. Liritzis (formerly: Research Center for Astronomy and Applied Mathematics, Academy of Athens, 14 Anagnostopoulou Street, 106 73 Athens, Greece; current address: Department of Mediterranean Studies, Aegean University, 1 Demokratias Ave., Rhodes 85 100), pp. 37-46, in Greek. Abstract: "The dating method of optical luminescence of ceramics and burnt clays is briefly described. This is a relatively new method for archaeologists, based upon the irradiation of the sample with monochromatic light rather than heat, as is the case with thermoluminescence (TL). The novel application of optical stimulation of sand minerals, used so far for the determination of the 'Total Dose' of Quaternary sediments, has been developed especially for novel application to small quantities of ceramics. It is a fast, accurate enough method, which requires very small samples for dating. We present a series of dates by OSL from Greece."

"Spurious Thermoluminescence Signals of Recently Fired Ceramics: The Advantageous Use of the Foil Technique" by

N. Zacharias¹, C. Michael¹, K. Polykretii¹, and S. Dimotikali² (¹Laboratory of Archaeometry, Institute of Materials Science, N.C.S.R. "Demokritos", 15 310 Aghia Paraskevi, Attiki; ² Materials Science and Engineering Division, Department of Chemical Engineering, National Technical University of Athens, 9 Hiron Politechniou Street, 157 73 Zografou, Athens, Greece), pp. 47-54, in Greek. Abstract: "One of the most important problems in authenticity testing is the high level of spurious TL, which in the case of low natural dose or sensitivity makes up most of the TL signal. By using the new foil technique a very good heating contact between sample and heater plate is achieved, making the use of a heat conducting gas unnecessary. This has two main advantages: a) measurements can be made in a vacuum (better than 10-1 mbar), avoiding the use of very pure nitrogen, making the procedure cheaper and resulting in a significant reduction of spurious TL (mainly in cases of insufficient N₂ purity). The use of N₂ is based on the assumption that spurious TL is usually the result of oxidation. b) We avoid a possible shift of the glow curve due to a delay in heating. This technique is quicker than the classical fine grain method, with the additional advantage of avoiding the use of toxic acetone. Another advantage is the use of high heating rates. Measurements were performed at increasing heating rates, starting from 14° C/sec to 50° C/sec, giving an increasing TL signal. In order to test the effect of the powder preparation technique in the creation of spurious TL, samples from a two year old ceramic vase were prepared using two different techniques: a) by using a hand drill with a common steel edge and b) by crushing a piece in a vice. Measurements at a heating rate of 50° C/sec were taken for both preparation methods. Thus, two values for P (palaeodose) were obtained resulting to two different age determinations when divided by the same mean value for the total dose rate. The age estimation for the drilled sample is about 157 years and for the mortar prepared sample 30 years. In conclusion, the foil technique for a better accuracy in TL measurements is recommended, while drilling during sampling must be avoided especially in authenticity tests of recently fired ceramics."

"Early Bronze Age Faience Beads from Aghios Mamas, Chalkidiki: A Short Note" by E. Mirtsou¹, M. Vavelidis², D. Ihnatiadou¹, and M. Papa¹ (¹16th Ephorate of Prehistorical and Classical Antiquities; ² Department of Mineralogy, Petrology and Economic Geology, Aristotle University of Thessaloniki, 540 06 Thessaloniki, Greece), pp. 309-316, in Greek. Abstract: "In 1992, during a rescue excavation at the cemetery of the prehistoric settlement of Agios Mamas in Chalkidiki, a vase containing faience beads was unearthed among other funeral gifts. The beads are dated to the Early Bronze Age and are possibly the earliest faience objects ever found in Macedonia. The aim of the study was to determine the chemical composition of the beads and the method of their manufacture. Analysis was carried out by atomic absorption spectrometry (AAS), while the optical characteristics were studied with a polarizing microscope and a scanning electron microscope. The chemical analysis showed that the composition of the beads is characterized by a very low percentage of almost all the elements identified, except silica. Microscopic examination revealed the beginning of the formation of interstitial glass,

while on the whole the material presents characteristics indicative of an early technology.”

“New Mycenaean Pottery Production Centers from Eastern Central Greece Obtained by Neutron Activation Analysis” by H. Mommsen¹, A. Hein¹, D. Ittameier², J. Maran², and Ph. Dakoronia³ (¹Institut für Strahlen- und Kernphysik, Universität Bonn, Nussallee 14-16, 53115 Bonn, Germany; ²Institut für Ur- und Frühgeschichte, Universität Heidelberg, Marstallhof 4, 69117 Heidelberg, Germany; ³14th Ephorate of Antiquities, 35100 Lamia, Greece), pp. 343-354, in English. Abstract: “Neutron activation analysis results of a set of more than 120 shards and whole vessels, including misfired pieces from Locris, Phthiotis and Southwestern Thessaly, are presented. The material spans the time period Middle Helladic to Late Helladic IIIC. Several new patterns are detected, some of which can be assigned with high probability to that region. A special result concerns several fragments of pictorial craters depicting ships and sea battles found in LH IIIC Middle levels at Livanates-Kynos. As our data suggest that they originate from a ceramic warehouse in Eastern Locris.”

“Chemical Differentiation of Ceramics and Control Groups: Combined Application of Chemical and Petrographic Analyses on Proto-Minoan Ceramics” by A. Tsolakidou¹, E. Kiriati², P. M. Day², and B. Kilikoglou¹ (¹ Archaeometry Laboratory, NCSR “Demokritos”, 153 10 Aghia Paraskevi, Attiki, Greece; ² Department of Archaeology and Prehistory, University of Sheffield, Northgate House, West Street, Sheffield S1 4ET, UK), pp. 355-366, in Greek. Abstract: “Recent studies of Early Minoan pottery by petrographic analysis have revealed the complexity of production and exchange of pottery from the very first phases of the Bronze Age. The significance of these findings is not only archaeological, but also in terms of the methodology of chemical analysis. Compositional variation has previously been interpreted as an indicator of different sources. This project demonstrates the varied factors, technological, cultural and spatial, behind the variability in ceramic composition and reassesses the validity of control groups that have formed the basis of chemical analysis. Here groups defined by strict typological and petrographic criteria are analyzed by neutron activation analysis. The results indicate that pottery made from similar materials in different parts of the island was not easily distinguished by NAA. Moreover, some of the greatest differentiation was between technologically varied pottery from the same production area. Consequently, the validity of chemical control groups as indicators of spatial information only was challenged. It is further suggested that distinguishing between cultural/technological and spatial factors in the interpretation of chemical group is problematic and that an integrated analytical approach to ceramic material is advisable.”

“Petrographic Analysis of Middle Bronze Age Pottery from Lerna, Argolid” by I. K. Whitbread (formerly: Fitch Laboratory, British School at Athens, 52 Souedias Street, 106 76 Athens, Greece; currently: University of Leicester, Leicester, LE1 7RH, UK), pp. 367-378, in English. Abstract: “Lerna, on the coast of the north-eastern Peloponnese, was in contact with different areas of the mainland and the islands of the Aegean throughout the Middle Helladic period. Excavations at the site have thus produced a wide range of wares, both locally made and

imported. In an effort to clarify the confusing range of descriptive terminology for Middle Helladic pottery, study of the Lerna MH wares has placed emphasis on technological characteristics, in particular, differences in fabric based on petrographic analysis. The paper presents a brief outline of the results of this analysis, focusing in particular on Kytheran or Southern Peloponnesian imports (Lustrous Decorated ware), wares from Central Greece (Grey and Yellow Minyan, Dark Burnished and Matt Painted wares) and wares from the islands (especially Aegina).”

“Comparative Petrographic Analysis of Sherds from Five Minoan Sites in Western Crete” by G. M. Chandler (Fitch Laboratory, British School at Athens, 52 Souedias Street, 106 76 Athens, Greece), pp. 379-396, in English. Abstract: “Minoan coarse wares of western Crete lack extensive decoration and have therefore been difficult to classify by traditional means. A sample of 49 sherds from Chania Kastelli, Nerokourou, Drapanias, Samonas, and Debla in western Crete was chosen based upon classification by hand lens observation of the fabrics. They were analyzed petrographically to determine the different fabric groups represented and possible associations with pottery from outside the area. Periods represented range from Early Minoan to Late Minoan III. The results revealed 15 distinctly different fabric groups, suggesting that the hand lens classification method is an effective one for coarse wares from the region. By comparison with local geology and previous researchers’ descriptions, three of the fabrics were found to be very similar to fabrics from eastern and central Crete, and Cretan fabrics found at Mycenae.”

“Non-destructive Analysis and Visual Recording Survey of the Pottery Collection in the Nicosia Museum, Cyprus” by E. Aloupi¹, A. Karysas², P. Kojjinias², T. N. Paradellis², A. Lekka³, and V. Karageorghis⁴ (¹THETIS Hellas Ltd, 41 M. Moussourou, 11636 Athens, Greece; ²Institute of Nuclear Physics, NCSR “Demokritos”, 153 10 Aghia Paraskevi Attiki; ³Department of Archaeology, University of Athens, 157 84 Athens, Greece; ⁴Anastasios G. Leventis Foundation, 40 Gladstonos Street., P.O. Box 2543, 1095 Nicosia, Cyprus), pp. 397-410, in English. Abstract: “The project forms part of a large-scale multidisciplinary study of ancient ceramic technology in Cyprus from the Late Neolithic to the Hellenistic period. The aim is to establish a solid understanding of ancient Cypriot ceramic technologies and thus provide a complementary perspective to the archaeological research on Cyprus and the Aegean. The first stage of the study consisted of an in-situ survey of 75 objects of the Nicosia Museum Collection using non-destructive analytical techniques (XRF spectroscopy and stereo-microscopy), in conjunction with digital recording of visual information (digital camera, 3-D image recording system) and archaeological documentation. The analytical results show to a chronological interplay on the use of different black decoration techniques (iron reduction technique, manganese black technique) which ties up with the archaeological views towards an Aegean influence in Cyprus during the Middle and Late Bronze Age. They also shed new light for the period 1200-1000 BC on the role of Cyprus along the sea route from the Aegean to the Syro-Palestinian coast.”

“The Effect of Burial Environment on the Physicochemical

Properties of Ceramics” by K. Souvatzia and B. Kilikoglou (Laboratory of Archaeometry, Institute of Material Science, NCSR “Demokritos”, 153 10 Aghia Paraskevi, Attiki, Greece), pp. 411-421, in Greek. Abstract: “In order to examine the physicochemical behavior of ceramics during burial, burial conditions were simulated in a series of laboratory experiments, using several types of clay pastes. Experimental ceramic briquettes were made by mixing a non-calcareous clay with limestone of three different volume fractions; 0%, 10% and 30%. Both clay and limestone were in <30µm grain size. The experimental briquettes with fixed dimensions of 0.8 cm x 1.3 cm x 2 cm, were fired at 800° C and 1000° C in air. Then one burnished and one unburnished briquette from each type (defined by CaCO₃ concentration and firing temperature) was placed in two different types of aqueous solutions of H₃PO₄ - Na₃PO₄ buffers (acidic and neutral) containing various acids usually found in natural soils. The changes of pH with time were monitored and correlated with results of SEM-EDAX and XRD performed on the samples after their extraction from the buffers. Here we present the results using three different organic acids; oxalic, gallic and citric.”

“Tin-covered Pottery and Chemical Analysis: A Summary” by C. Gillis (Department of Classical Archaeology and Ancient History, Gothenburg University, S-405 30 Gothenburg, Sweden), pp. 451-458, in English. Abstract: “The phenomenon of tin-covered clay vessels found in rich Late Bronze Age tomb contexts on Crete, the Greek mainland and some of the Aegean islands for the period ca 1450 - 1100 B.C. raises many questions of both a social nature — why? — and a physical one — how? The search for some answers to these questions has led to a series of different experiments and chemical analyses, which will be summarized briefly in this short review. The social issues have been discussed elsewhere and will be taken up here only in relation to the analyses.”

“Ancient Repairs on Bronze and Ceramic Vessels” by M. Lykiardopoulou-Petrou (Archaeological Museum of Eani, Eani, 500 04 Kozani, Greece), pp. 469-484, in Greek. Abstract: “The paper is part of an extensive research into ancient repairs on bronze and ceramic vessels. The examples collected so far exceed 150 and come from different archaeological museums and excavations all over Greece. In the case of ceramics artefacts, the mending of broken pottery was common practice in the past. Pure lead was used in the process, in the form of clumps, rivets, fastened through perforations on either side of the break. The method was steadily in use from Prehistoric to Byzantine times. In metallic objects, the cases collected refer only to bronze vessels and cover the period from Prehistoric to Hellenistic times. The cracks and holes on these vessels used to be repaired by applying pieces of bronze sheets on the interior of the vessel to reinforce the deteriorated areas. These pieces were round or square in shape and used to be attached by means of rivets and physical force such as hammering. The results obtained by the microscopic examination of archaeological objects and the application of analytical techniques are discussed in comparison to those collected from bibliography.”

The 22 English-language papers include: “Dietary Reconstruction of the Early Bronze Age Manika Population

(Euboea Island) by Bone Trace-element Analysis and Dental Pathology” by F. Bartoli, G. Tartareli, S. K. Manolis, F. F. Mallegni; “Peristeri I: A New Palaeolithic Cave in Epirus: Palaeoanthropological and Geophysical Investigations” by A. Bartsiokas; “Geophysical Investigation of the Early Christian Cemetery in Limori of Epanomi (N. Greece): The Implication of Spatial Aliasing and the Masking Effect of the Calcite Eyes” by G. N. Tsokas, G. Vargemezis, S. Kiliass and Th. N. Pazaras; “Greek Marbles in the Roman Province of Dacia” by H. W. Müller, B. Schwaighofer, M. Benea, I. Piso and Al. Diaconescu; “Stone Quality Assessment using Non-destructive Techniques. The Case of Sta Marija Ta Cwerra, in Malta” by V. Christaras; “Materials and Techniques of Ancient Monumental Paintings: Analysis of the Painted Throne from the ‘Tomb of Eurydice’, Vergina, Greece” by I. Kakoulli, A. Kottaridou and N. Minos; “A Method for the Evaluation of Icons and other Paintings based on Digital Processing of X-ray Images Produced by a Mammography-system” by V. Spyropoulos, G. Korkovelos, T. Panou and P. Kretikos; “A Study of Some Ancient and Prehistoric Plasters and Watertight Coatings from Greece” by E. Chiotis, E. Dimou, G. Papadimitriou and S. Tzoutzopoulos; “SEM and TEM Examination of Byzantine and Post-Byzantine Metal Threads in Greek Orthodox Ecclesiastical Textiles” by E. Photos-Jones, A. Hendry and P. Kavasila; “Geological Aspects of the Lakonian Marbles and New Evidence on their Quarrying in Antiquity” by E. D. Chiotis; “Facies Analysis of the Carbonate Sequence of the Moria Ancient Quarries in Lesbos Island” by M. Varti-Mataranga and G. Katsikatos; “Simulation Study of Ancient Bronzes: Their Mechanical and Metalworking Properties” by G. Papadimitriou; “Neolithic Craft: Evidence about Boat Types and Uses” by C. Marangou; “Characterization of Lithic Materials by Petrographic and SEM Techniques: Towards Suggestions on Chipped Stone Tool Provenance from Neolithic Sites of Northern Greece” by S. Dimitriadis and K. Skourtopoulou; “Prehistoric Tools and The Bronze Age Woodworking Industry” by C. J. Downey; “New Evidence on the Advanced Level of the Mycenaean Mathematics” by E. D. Chiotis; and “An Application of Markov Chain Monte Carlo Methodologies to some Common Archaeological Problems” by P. Dellaportas and A. Moundrea-Agrafioti. (The ceramic papers by H. Mommsen et al., Whitbread, Chandler, Aloupi et al., and Gillis are also in English.)

Dr. Yorgos Facorellis, President of the HAS (Laboratory of Archaeometry, Institute of Materials Science, N.C.S.R. “Demokritos”, 153 10 Aghia Paraskevi Attikis, Greece; tel ++30010-6503958, e-mail: yfacorellis@ims.demokritos.gr) has announced that the volume may be purchased online and recommends the following bookstores: Mrs Melina Korozi, The National Hellenic Research Foundation, 48, Vas. Constantinou Avenue, 116 35 Athens - Greece (tel +3010-7273700, fax +3010-7246618, e-mail mkorozi@eie.gr); International Booksellers, Hippokratous 8, 105 79 Athens - Greece (telephone +3010-3615156, fax +3010-3631100, e-mail: info@kardamitsa.gr, website <http://195.97.79.235/kardamitsa/en/>); and Leader Books, Koniari 62, Ampelokipoi, 115 21 Athens - Greece (telephone. +3010-6452825, FAX +3010-6449924, email: info@leaderbooks.com, website <http://www.leaderbooks.com/default.asp>).

Guðrún Sveinbjarnardóttir is the author of *Leirker á Íslandi/Pottery Found in Excavations in Iceland* (Reykjavík, Íslandi: Hid íslenska fornleifagélag, 1996. Rit Hins íslenska fornleifafélags og Þjóðminjasafnas Íslands 3. 184 pp., 46 figures, 7 tables, 2 appendices, bibliography, ISBN 9979-9120-1-4, \$24.95, paper). This bilingual treatise on 12th-20th century ceramics recovered from 43 excavations in Iceland begins with the Icelandic-language eight-chapter version (pp. 1-76), followed by an English version (pp. 77-133), accompanied by a bibliography with 192 entries (pp. 135-141), and a bilingual set of abbreviations and terminologies (pp. 12-15). The “Table of Contents” (pp. 5-7, 79-81) and “Preface and Acknowledgments” (pp. 17-18, 83-84), precede the initial chapter, “Introduction” (pp. 19-21, 85-86) in which the author provides an introduction to the study, cites previous scholarship, discusses research on clay and pottery manufacture in Iceland, and characterizes the 4 aims of the project: 1) provide an overview of pottery types used in Iceland since its settlement; 2) create a type series so that the volume can be used as a handbook for future research; 3) investigate changes over time and differences between sites and parts of the country; and 4) contribute to research already carried out in other countries on the patterns of distribution of pottery in northern Europe. The project began in 1991 when the author, excavator of two sites in Iceland, was awarded a research post at the National Museum of Iceland in Reykjavík; she also studied collections in the Reykjavík Museum at Árbaer. A portion of the research was funded by NSF’s Division of Polar Programs, allowing her to visit and study collections in London and in Denmark (Copenhagen and Ribe), Germany (Göttingen and Lübeck), Norway (Tromsø, Trondheim, and Bergen), and Amsterdam.

The author documents briefly the project’s “Methodology” (pp. 23-27, 87-89), pointing out the nature and limitations of the material (original recording problems, small fragments, etc.), analytical techniques (pottery types, fabrics, vessel forms, surface treatments, and selection for NAA), and the structure of the book. She designed a computer data form for characterizing ceramic attributes (Fig. 1, p. 24) which is not reproduced in the English-language section. In the third chapter she characterizes “The sites” (pp. 28-34, 90-94), providing brief descriptions of 44 sites by districts and type of sit. A map of the site distributions (Fig. 2, p. 28), not reproduced in the English-language section, shows that the majority of the sites are located along the south and west coasts (n = 24) and slightly inland (n = 5), while the north coast and east coast have 4 each with one site inland in the north. Most of the sites are farmhouses but other site types include an assembly house, trading center, storehouse, wool factory, and a smithy, plus several surface finds and a rubbish heap.

A lengthy Chapter 4, “Types of pottery” (pp. 35-64, 95-121) documents the type series ordered under the headings of the different countries of origin. The major characteristics of each type are described (form, fabric, and decoration) and significant references cited, followed by select examples with references to illustrations (at 1:4 scale). Munsell color nomenclature is not used. Ten types are considered: 1) Baltic (?): one possible specimen; 2) England: Scarborough (pipkins), Grimston, and Creamware; and 3) France: Northern French

green-glazed, Saintonge, and Martincamp (flasks). The longest and most complex section considers specimens from 4) Germany. There are eight stonewares identified — Siegburg, Langerwehe, Raeren, Frechen, Westerwald, Dreihäusen/Waldenburg, Duingen, and various stoneware ointment bottles; Rhenish lead-glazed; Redware; Werra and Weser slipwares; White tin-glazed earthenware; and Lead-glazed whitewares. The German vessel forms include jugs, tankards, costrels, bottles, mineral water bottles, and Bartmann jugs. 5) Holland: Greywares and Tin-glazed earthenwares (jugs, tripod vessels, plates, and albarellos); 6) Scandinavia and/or northern Germany: Greywares (pots), Redwares, and Slip-decorated redwares (pots, jars, plates, and bowls). “Redwares in the northern German and southern Scandinavian tradition” comprise the largest segment of the study (pp. 110-119) and is organized into: 1) tripod vessels and other cooking vessels, 2) pans, and 3) bowls and platters. Twelve Redware rim forms, 7 handle types, and 4 types of legs are documented, as are five platter and bowl forms, and miscellaneous forms such as sieves and a “basket-shaped” handled vessel. The other types include: 7) Stove-tiles; 8) Floor-tiles; 9) Porcelain (Chinese coffee and tea cups); and 10) Miscellaneous (a cup/vase, jug, and crucible).

The “Discussion” of results (pp. 65-69, 122-126, Table 1) summarized evidence on the pottery types found in Iceland and also includes a comparison of the sites. A total of 4,433 sherds were studied and included 2,211 specimens of Redware, 867 Whiteware, 575 Stoneware, 184 Porcelain, 114 Faience, 70 Stove-tiles, 66 White earthenware, 22 Greyware, and 324 specimens included within nine other types. A bilingual table, “Table 1: Site gazetteer with pottery presence analysis charts” (p. 143), documents the 4,433 sherds and their distribution among 43 sites and 18 types. “Table 2: Analysis of stoneware into types” (p. 144) illustrates the distributions of the 575 Stoneware specimens into 8 types found in 26 of 43 sites. “Table 3: Abbreviations and terms used in the Icelandic computer database” (p. 145). Redware (red earthenwares) dominate the collective assemblages while stove-tiles have a limited distribution and Floor-tiles are associated with church floors. The largest numbers of specimens occur at Bessastaðir and Viðeg sites, which were “governing sites” and had assembly buildings. Bessastaðir has the most pottery: 1,985 specimens represented by nine types: 964 Redware, 552 Whiteware, 247 Stoneware, 108 Porcelain, 52 Faience, 33 White earthenware, 10 Greyware, and 3 Stove-tiles. The author also reports that the English types are all of recent import and she refers to the NAA report in Appendix II from which she infers that no definite places of origin can be determined for the Redware but the vessels seem to have been imported from the same geographic area during the 17th and early 18th centuries. The “Discussion” also incorporates a comparison of ceramics materials from Norway, Denmark, Germany, and Shetland.

An author’s brief chapter on “Chronological trends” (pp. 70-73, 127-130) reviews data on six sites: Stóraborg (11/12th-mid-19th century occupation, stratified site); Reykholt (17th-18th century, two building phases); Kópavogur (17th century, assembly house); Gautavík (14th-16th century, three structures); Viðey (10th-18th century, stratified site, several buildings); Bessastaðir (17th-19th century, rubbish heaps); and Svalbarð

(11/12th century, rubbish heap). Tabular information on ceramic types is presented for Gautavík and Viðey. Chapter 7, "Pottery as an indicator of trade" (pp. 74-75, 131-132), mentions the significance of the Hansa Association (1367 ff.) to northern European commerce. The author notes that trade occurred at Icelandic assembly sites and trading centers, and that German wares date since 1432 while English trade began during the 15th century. Pottery made in Holland, France, the Rhineland, and China was imported to Iceland via Dutch seaports but after 1602 the Danes imposed a trade monopoly on Iceland so that all goods went through Danish ports. Notably, a number of ceramic types are related to beer and wine consumption and she notes that after the Reformation in 1550 the use of pottery increased considerably. The "Conclusion" (p. 76, 133) provides a brief summary of major results and emphasizes the need for future research.

The conflated bibliographic references (pp. 135-141) include 15 unpublished sources (10 in Icelandic, 4 in English, and 1 in German); and 177 printed sources (40 in English, 38 in German, 34 in Danish, 20 in Icelandic, 10 in Dutch, and 5 others in Swedish [3] or Norwegian [2]). The 46 figures consist of two black-and-white biplots in Appendix II and 43 figures clustered at the end of the narratives. The 43 include three maps (Figs. 43-46), and the 40 others comprise 182 b-w line drawings, 14 black-and-white photographs, and 63 color images. The cartographic illustrations include "A map showing trade routes to and from Bergen [Norway] early in the 14th century" (Fig. 44); "A map showing the main trade routes of the Hanseatic merchants during the medieval period" [pre 1250 CE, 1250-1530, and 1350-1500] (Fig. 45); and "A map showing places of origin of pottery types so far identified in Iceland" [Germany 9, Low Countries 5, England 4, Norway 4, France 3, Denmark 1, Baltic area 1] (Fig. 46). The volume has no index.

Both appendices are published only in English. The first was by Níels Óskarsson (Nordic Vulcanological Institute, University of Iceland), "A chip of earthenware: Sample marked V 53956-690: Notes on mineralogy and origin" (pp. 147-148) [an imported Baltic origin specimen, No. 1 in Chapter 4] documents XRD and XRF analysis to characterize a kaolin-type clay with rounded grains of granitic rock fired at <800° C. The second appendix by M. J. Hughes (British Museum, Department of Scientific Research), entitled "Neutron Activation analysis of medieval and post-medieval pottery from Iceland" (pp. 149-157), includes 2 figures, 4 tables, and 8 references (7 in English and 1 in Icelandic). For the project, 25 samples of redware (legs or rims of tripods or bowls) were selected, including 4 representative 17th century samples from excavations in the marketplace of the medieval port of Ribe, Denmark. Three of the 25 specimens were outliers, while 22 grouped into five clusters; Clusters 1 and 2 contained all of the Ribe samples and demonstrated that Ribe was not a source for the excavated Icelandic redware. Sources of the clusters are discussed and include one Dutch source and a major cluster (Cluster 4) that supplied numerous Icelandic sites over a lengthy period.

A few minor errors have crept into the English version: Section 3.7 (p. 119) should be labeled Section 4.7; excavation = excavation (p. 127), tripod = tripod (p. 174, 175), and store

= stove (p. 179). Nonetheless, this first survey of ceramics recovered from excavations in Iceland through 1991 centers on fabric and form analysis and illuminates exchange systems for the 12th through 20th centuries and especially cultural interactions during the 16th and 17th centuries. Guðrún Sveinbjarnardóttir provides a landmark for further studies and future ceramic analyses and scholars should be grateful for her meticulous research and thoughtful assessments.

Al Luckenbach, C. Jane Cox, and John Kille are the editors of *The Clay Tobacco-Pipe in Anne Arundel County, Maryland (1650-1730)* (Annapolis, MD: Ann Arundel County's Lost Towns Project, 2002, ix + 122 pp., 79 color and 19 black-and-white illustrations, 16 tables, no ISBN, \$20.00). Luckenbach serves as the Anne Arundel County Archaeologist and has assembled a dozen reports on clay pipes excavated from sites in that county which is located on the western shore of the upper Chesapeake Bay and was settled initially in 1649 (the capital at Annapolis was established in 1695). The volume documents excavations at 11 sites that resulted in the recovery of more than 25,000 clay pipe fragments. There is an introductory essay and four parts containing a total of 12 highly illustrated articles. The prefatory essay by David Gadsby and Shawn Sharpe, "The Lost Towns Project Tobacco-Pipe Classification Scheme" (pp. 4-9, 4 color illustrations), considers and illustrates 36 pipe type specimens in color at a 1:1 scale.

Part One: The Town of Providence contains five articles: Al Luckenbach and Paul Mintz, "The Broadneck Site (18AN818): A 1650s Manifestation" (pp. 12-16, 6 color and 1 b-w illustrations); David Gadsby and Rosemarie Callage, "Homewood's Lot through Four Generations: Tobacco-Pipes from 18AN871" (pp. 18-26, 10 color illustrations, 6 tables); Shawn Sharpe, Al Luckenbach, and John Kille, "Burle's Town Land (ca. 1649-1676): A Marked Abundance of Pipes" (pp. 28-39, 5 color and 2 b-w illustrations, 2 tables); Paul Mintz and Jason Moser, "Tobacco-Pipes from the Salvage Excavations at Town Neck (ca. 1661-1680)" (pp. 40-44, 4 color and 1 b-w illustrations, 1 table); and Al Luckenbach and C. Jane Cox, "Tobacco-Pipe Manufacturing in Early Maryland: The Swan Cove Site (ca. 1660-1669)" (pp. 46-63, 23 color and 2 b-w illustrations, 1 table). The numbers of specimens vary from site to site: Broadneck (18AN818), occupied for a short period in the 1650s, had 12 specimens but these included English, Dutch, Native American, and colonial types. Homewood (18AN871) produced 4,602 specimens, in the main from a 1660s cellar, and included locally produced terracotta pipes made by Emanuel Drue. The Burle's Town site yielded 15,000 fragments and permitted an analysis of makers' marks among the Bristol, English, and Dutch specimens, as well as a distribution assessment of terracotta and white clay pipes, North Devon Sgraffitto and North Devon Gravel Tempered ceramics. The Town Neck site, occupied from 1661 to 1680, is located on US Naval Academy property and produced 168 specimens that document that English and Dutch pipes dated by the Binford and Hanson methods yield dates that are too early. The Swan Cove site (18AN934), part of the Providence settlement, was the location of the production facilities of the pipemaker Emanuel Drue (1650s-1669). The authors relate the manufacture which involved the use of brass molds and muffles (similar to saggars),

and document the raw clays and construction of the pipe kiln with associated kiln debris, kiln furniture, and related features. Drue's tobacco pipe types are also elaborated, including specialty types, forms and decorations, and color variations (not related to Munsell color terminology). The Drue pipes, the authors conclude, were equal in quality to their European counterparts.

Part Two: Seventeenth-Century Homelots has four articles: C. Jane Cox, "Skipworth's Addition (1664-1682): Tobacco-Pipes from an Early Quaker Homelot" (pp. 66-71, 2 color illustrations); Rosemarie Callage, John Kille, and Al Luckenbach, "Tobacco-Pipes from the Chaney's Hills Site (ca. 1658-1686): Life on the Frontier" (pp. 72-77, 2 color and 4 b-w illustrations); Al Luckenbach and C. Jane Cox, "The Chalkley Site (1677-1685): Tobacco-Pipes of a Middling Planter" (pp. 78-79, 2 color and 1 b-w illustrations, 1 table); and C. Jane Cox, "Tobacco-Pipes from the Pyles Site (18AN542), South River Landing" (pp. 80-82, 2 color and 1 b-w illustrations, 1 table). Skipworth (18AN795), occupied from 1664 to 1682, had 294 specimens, including some made by Bristol manufacturers. The Binford and Hanson methods confirmed dates of 1650-1680. The Chaney's Hills site (18AN1084) yielded 1,689 specimens and permitted an analysis of makers' marks and a distribution analysis. Likewise, the 191 examples from the Chalkley allowed an analysis of makers' marks and bowl forms, while the Pyles Site (18AN542), occupied 1660 to 1675, also yielded specimens for a maker's analysis and documented that Binford and Hanson's formulae yielded dates that are too early.

Part Three: London Town contains two articles: Lisa E. Plumley, "Larrimore's Point (1864-1730): Tobacco-Pipes from an Early Urban Site at London Town" (pp. 86-91, 2 color and 3 b-w-illustrations, 1 table); and Carolyn L. Gryczkowski, "Tobacco-Pipes from Rumney's Tavern at London Town (ca. 1700-1730)" (pp. 92-99, 6 color and 1 b-w illustration, 3 tables). Part Four: Overview of Tobacco-Pipes from Anne Arundel County, Maryland contains Al Luckenbach and C. Jane Cox's "A View through a Smoky Past" (pp. 102-107, 1 color illustration). Larrimore (18AN1065) yielded 512 examples and permitted the author to analyze makers' marks, and bowl and stem forms. Rumney's Tavern (18AN48) produced 871 examples from the cellar, allowing makers' marks and decoration assessments and stem bore analysis. Gryczkowski also considers the problem of the minimum number of pipes in the assemblage — no other authors tackle this important issue. In the overview, Luckenbach and Cox comment that six of these 11 well provenienced sites have independent precise dating. They also review the physical characteristics of the pipes (bowl forms and makers' marks), "Chesapeake" pipes (handmade vs. moldmade variants, and Drue's locally produced pipes). Social and cultural issues are also reviewed, including the diachronic increase in bowl sizes as tobacco became cheaper and more widely available through time. The authors also comment on trends in the assemblages and evaluate several previously published hypotheses regarding sociocultural correlates and terracotta pipes and ceramic correlations. Origins, uses, and cultural contexts and inter- and intrasite distributions receive some minor discussion.

These narratives are accompanied by three appendices: Appendix A: Lost Towns Pipe Typology Chart (frequency distribution table of 9 attributes of specimens recovered at 11 sites); Appendix B: Pipe Type Distribution by Selected Features (six color coded pie charts of pipe type distributions by feature); and Appendix C: Pipe Type Distribution by Site (11 color coded pie charts of pipe type distributions by site). The "References Cited" (pp. 114-119) encompasses 100 entries and the volume has a list of Project Team Members. In the "Foreword," Ivor Noël Hume writes "The dating of tobacco-pipe fragments remains the cornerstone of sequencing on colonial sites" (p. vii). The reports in this volume document that fact and the research also illuminates the fact that there are insufficiencies in the standard pipe typologies for the Chesapeake Bay region. The essays provide chronological refinements and also provide compelling evidence that pipe stem dating (developed by Harrington and elaborated by Binford, Hanson, and others) is only marginally accurate. This unique detailed assessment is extremely valuable for the data reported and interpreted, the important quantification provided, the compelling essays, the critique of pipe stem dating formulae and hypotheses, and for its superb illustrations. The fact that a majority of the figures are color renderings gives added value to this publication. The volume is evidence as to what can be done at the county level of government and is evidence of the support that archaeological research has in Anne Arundel County and the State of Maryland. All those associated with the Lost Towns Project and this significant report are to be congratulated. This report is available from Anne Arundel County Trust for Preservation, Inc. (P. O. Box 1573, Annapolis, MD) or Anne Arundel County, Department of Planning and Zoning, Historic and Archaeological Programs (Annapolis, MD 21401) for \$20.00 (check or money order).

Other Books

The Science and Archaeology of Materials: An Investigation of Inorganic Materials by Julian Henderson (New York: Routledge, 2001, xvii +334 pp., 58 figures, 109 illustrations; ISBN 0-415-19934-4, paper, \$32.95; ISBN 0-415-19933-6, cloth, \$100.00) has been reviewed critically in *American Journal of Archaeology* 106(3):472-473 (July 2002) by Enzo Ferrara (Materials Department, Istituto Elettrotecnico Nazionale "Galileo Ferraris," Torino, Italy). Henderson's volume contains seven chapters and emphasizes four materials: Glass (pp. 24-108), ceramics (pp. 109-207), metals (pp. 208-296), and stone (pp. 297-317). A brief second chapter (pp. 8-23) "Techniques of Scientific Analysis" reviews X-ray diffraction, neutron activation and isotopic analyses, electron probe microanalysis, scanning electron microscopy, and PIXE.

Chapter 4, "Ceramics," has the following organizational structure: Introduction, The Raw Materials of Pottery, Pottery Manufacture, and four case studies. The latter documents unconventional rather than classical Greek and Roman case studies, so that examples are drawn from the production and distribution of British Iron Age and Medieval pottery, Chinese celadon manufacture, and the development of Iznik Ottoman fritware. Reviewer Ferrara comments that readers seeking a

broad approach to this topic will also have to consult M. Pollard and C. Heron's *Archaeological Chemistry* (London: Royal Society of Chemistry, 1996:134-144) and Zvi Goffer's *Archaeological Chemistry: A Sourcebook on the Applications of Chemistry to Archaeology* (New York: Wiley, 1980:124-131), and he also suggests augmentation with Ulrich Leute's *Archaeometry: An Introduction to Physical Methods in Archaeology and the History of Art* (Weinheim: VCH Verlagsgesellschaft mbH; New York: VCH Publishers, 1987) and Mike Tite's classical *Methods of Physical Examination in Archaeology* (London and New York: Seminar Press, 1972). Although Ferrara does not cite Brothwell and Pollard's *Handbook of Archaeological Sciences* (2001), there are a number of relevant chapters in this compendium that emend Henderson's treatise. Henderson's *Science and Archaeology of Materials* is available from Routledge, 29 West 35th Street, New York, NY 10001; telephone 212/216-7800, fax 212/564-7854, e-mail info.archaeology@routledge.co.uk, or consult the website at <http://www.routledge.com/>

The *Handbook of Archaeological Sciences* edited by Don R. Brothwell and A. Mark Pollard (Chichester and New York: John Wiley and Sons, 2001, xii + 762 pp., ISBN: 0471984841, hardbound, \$250.00) is an anthology of 59 papers by contributors from many parts of the world. The volume reflects the range of scientific studies being undertaken in archaeology, although no claim is made for it being comprehensive. The entries cover dating methods; quaternary palaeoenvironments; human palaeobiology; biomolecular archaeology; biological resource exploitation; inorganic resource exploitation; archaeological prospecting; burial, decay, and archaeological conservation; and statistical and computational methods. The general index is augmented by indices of sites and of species names and taxonomic groups. For those readers engaged in the study of archaeological ceramics, a dozen chapters are especially useful. These include: R. Grün, "Trapped charge dating," [ESR, TL, OSL], pp. 47-62; A. G. Latham, "Uranium-series dating," pp. 63-72; P. R. Smith and M. Y. Wilson, "Blood residues in archaeology," pp. 313-322; A. M. Gernaeym, E. R. Waite, M. J. Collins, O. E. Craig, and R. J. Sokol, "Survival and interpretation of archaeological proteins," pp. 323-329; R. P. Evershed, S. N. Dudd, M. J. Lockheart, and S. Jim, "Lipids in archaeology," pp. 331-349; M. S. Tite, "Materials study in archaeology," pp. 443-448; I. K. Whitbread, "Ceramic petrology, clay geochemistry and ceramic production — from technology to the mind of the potter," pp. 449-459; J. Henderson, "Glass and glazes," pp. 483-492; J. G. McDonnell, "Pyrotechnology," pp. 493-505; L. Wilson and A. M. Pollard, "The provenance hypothesis," pp. 507-517; M. J. Shott, "Quantification of broken objects," pp. 711-721; and H. Neff, "Synthesizing analytical data — spatial results from pottery provenance," pp. 733-747.

Tite and Whitbread's separate contributions in *Handbook of Archaeological Sciences* particularly enhance Henderson's chapter on "Ceramics" from his *The Science and Archaeology of Materials*. Mike Tite's essay emphasizes two stages in materials studies, the first being the reconstruction of production, distribution, and use, with the second stage as the interpretation of the reconstructed life cycle in order to assess

the behaviors of the people who produced, distributed, and uses the products. Three major questions are related: 1) the mode of production and/or distribution; 2) the discovery of new technologies and the reasons for adopting these innovations; and 3) the choices of particular production technologies, modes of production, patterns of exchange, and reasons for change through time. Tite also has a salient discussion of past achievements and limitations and speculates about the future of materials analyses. Ian Whitbread's treatise begins with a discussion of ceramic ecology and materials analyses and then elaborates raw materials prospection and subsequent processing, forming, finishing, decorating and firing. He also considers future directions for scientific analysis and ceramic technological studies. The distribution, use, and subsequent disposition of the ceramic materials (discard, reuse, etc.) are not considered. Neff's chapter is also particularly germane. For additional information about the *Handbook of Archaeological Sciences*, contact the publisher, John Wiley and Sons: Customer Care Center - Consumer Accounts, 10475 Crosspoint Blvd., Indianapolis, IN 46256; telephone 877/762-2974, FAX 800/597-3299, e-mail customer@wiley.com (Hours: Weekdays, 8:00 A.M. to 8:00 P.M. EST), or visit the website at <http://www.wiley.com/>

Stanley South's *Archaeological Pathways to Historic Site Development* (New York: Kluwer Academic/Plenum Publishers, xx + 342 pp., 250 figures, 23 tables, 6 appendices, references [298 entries], index, ISBN 0-306-46590-6, hardcover, \$115.00) considers issues of archaeological conservation and the interpretation and restoration of historic sites focusing on 1670-1680 Charles Towne [Landing], South Carolina and the rich Native American legacy that preceded European colonization. The goal of his 1968-1969 research and the present volume is to explicate "the process of historic site development for the education and entertainment of the visiting public" (p. vii). South (South Carolina Institute of Archaeology and Anthropology; University of South Carolina Institute for Southern Studies), recognized as a major authority on method and theory in historical archaeology and an expert on the American Southeast has also authored *Historical Archaeology in Wachovia: Excavating Eighteenth-century Bethabara and Moravian Pottery* (1999) and *Pioneers in Historical Archaeology* (1994). He considers issues of archaeological conservation, theory building, and the interpretation and restoration of historic sites focusing on 1670-1680 Charles Towne [Landing], South Carolina and the rich Native American legacy that preceded European colonization. The book is organized in three parts and nine chapters: "Project Background Introduction" by Robert L. Stephenson; Part I. "The Historical Pathway at the Charles Towne Settlement 1670-1680": 1. The Historical Pathway, 2. The Methodological Pathway, and 3. The Archaeological Pathway to the 1670 Fortifications; Part II. "The Archaeological Pathway to the Eighteenth and Nineteenth Centuries": 4. Old Town Plantation; Part III. "The Archaeological Pathway to Native Americans on Albermarle Point": 5. The Archaic, Formative and Developmental Periods, 6. A Pathway to the Climatic Period: A Ceremonial Center, 7. The Pottery Pathway at the Ceremonial Center. 8. The Material Culture Pathway to the

Ceremonial Center, and 9. The Pathway to Decline.

Following Stephenson's informative introductory essay, South authored three chapters on the site's history, methodology of excavation and data recovery, and interpretation, augmented by a fourth on Old Town Plantation (1790 ff.). Other occupations include a 1780 Revolutionary War British redoubt used by Hessian mercenaries and 1836 "Negro Settlement." Five subsequent chapters characterize Native American prehistory on Albemarle Point (4500 BCE-CE 1670; Archaic, Formative, and Developmental periods through Kiawah Indian occupation). The ca.1655 moundless ceremonial center construction, structures (palisade and temples), features, burials, and grave goods (mica and shell beads) are emphasized. Material culture remains embrace ceramics (Native American pottery. European and Euro-American earthenware, Delft tiles, Bellarmine, slipwares, salt-glazed stoneware, imported white clay tobacco pipes, and local red clay tobacco pipes), glass bottles, metals (lead ball and shot, iron fragments), gunflints, fireflints, bone tools, flora and fauna. Eight ware groups are identified and characterized for the periods 1200 BCE-CE 1800 and (pp. 141-183) and there are baked clay objects similar to the Poverty Point artifacts. The ceramics include the York group, Ashley series, Catawba series, and Chicora group, which are defined by rim and vessel forms, and decorative motifs. One appendix by Leland Ferguson provides "Chicora Stylistic Ceramic Attributes (1974)." Five other appendices, 298 references, 250 figures, 23 tables, and 16-page conflated index complete the volume. English and Spanish (1672) archival documents — the latter the report of a spy — illuminate the archaeological record. South's well-documented compendium presents a salient example of the various archaeological pathways often encountered by researchers involved in historic site development and cultural resource management. For further information, contact Kluwer Academic Publishers, Customer Service Department, P.O. Box 358, Accord Station, Hingham, MA 02018-0358; telephone 781/871-6600, FAX 781/681-9045, e-mail kluwer@wkap.com, or visit the Internet site <http://www.wkap.nl/home/customerservice/>

A Dictionary of Chinese Ceramics by Wang Qingzheng (9.5 x 12.5", 352 pp., 1000 color or b/w illustrations, Singapore: Suntime Publishing, 2002, ISBN 9810460236, cloth with d.j. \$250.00 US cy) has been published recently. This volume, the first ever attempted in such a format in the English language, is aimed at the collector, connoisseur, curator and all those engaged in this fascinating study. Information is provided in an encyclopedic format to serve a comprehensive range of inquiries, that have been carefully researched and written by world-renowned author, Professor Wang Qingzheng and a team of experts in the ceramics department of the Shanghai Museum, and vetted through translators and editors. Though not a strict taxonomic study, this book is intended to address a vast number of questions about artistic, stylistic, technical and historical aspects of Chinese ceramics. The book is organized into seven chapters: Shapes and Forms; Ceramics Materials and Manufacture; Kiln Sites, Factories, Guilds and Wares; Decoration Methods, Glazes and Colors; Motifs; Marks and Inscriptions; Potters; and Books and Studies on Ceramics. The

volume contains more than 2,500 entries, 1,000 color and black and white illustrations, and is augmented by maps and chronologies. Selected line drawings provide a graphic analysis of shapes and decorative styles occurring throughout China's history of ceramic production. In addition, each entry title is accompanied by references in and Chinese characters for further reference, and wherever possible within the entry information supplied. Comprehensive indices in English assist the reader in searching for desired entries. Owing to the complexity and conflicts arising in direct translations from the Chinese language, an alphabetical order is implemented wherever possible in each chapter and/or sections or groups of topics within them, in general accordance with Western dictionary conventions. This volume is available from Paragon Books, 1507 S. Michigan Avenue, Chicago, IL 60605 (telephone Toll Free 800/55-BOOKS, telephone 312/663-5155, FAX 312/663-5177, e-mail paragon@paragonbook.com Paragon has a website at <http://www.paragonbook.com>

New e-journal on Ceramics and on-line Newsletter on Pyrotechnology

Studia Vasorum is an e-journal on ceramic studies that began publication in late August 2002. The idea for this journal was generated as a result of the collaboration between the editors and the members of the board during the experimental archaeology portion of the Vadastra project that studied prehistoric and protohistoric ceramics from Eastern Europe. *Studia Vasorum* is an e-journal of ceramic theory and experiment that will act as a source of information for scholars and students working in the field of ceramic studies. The primary goal of this journal is to promote a multidisciplinary approach to ceramic studies and to synthesize theory and experiment in a new way. A second goal is to provide a balance of ceramic studies from diverse regions of Europe, in order to understand the cultural evolution in these regions, and to harmonize European ceramic studies with American ones, and bring together diverse experiences of different traditions of analysis. The board of the journal includes well-known European and American scholars working in the field of ceramics and it is hoped that the journal will provide an important forum of communication between European scholars in ceramics and their American counterparts. The board members include Dean E. Arnold (Wheaton College, Wheaton, IL), John Chapman (Durham University), Timothy Darvill (Bournemouth University), Alex Gibson (Bradford University), Olivier Gosselain (Universite Libre de Bruxelles), Jean-Louis Van Berg (Universite Libre de Bruxelles), and Marc Vander Linden (Universite Libre de Bruxelles). The editors, Dragos Gheorgiuh and Vasilica Lungu (Academia Romana, Institut de studii Sud-Est Europeene, Calea 13 Septembrie Nr. 13, CP 22-159, Bucuresti) studiavasorum@fx.ro provide a guide for authors: The work shall be of 5000 words average in English or French, 5 to 10 photos (on paper or electronic, of minimum 72 DPI), "Harvard bibliography, with notes inside the text," and works submitted in e-format with a hard copy by regular mail. *Studia Vasorum* is published by the Vadastra Project, www.vadastra.ro (Grant CNCSIS – World Bank No. 112). The initial number

has seven papers: "The Threshold Model for Ceramic Resources: A Refinement" by Dean E. Arnold (Wheaton College, Wheaton, IL), 13 pp.; "Chrono-types or socio-types? Some ideas on Corded Ware and Bell Beaker ceramics (third millennium BC)" by Marc Vander Linden (Belgian National Fund for Scientific Research (F.N.R.S.), Centre of research "Spaces and Societies - Comparative Approaches," University of Brussels, Belgium), 8 pp.; "A formal characterisation of ceramics in Galician Bell-Beaker contexts" by Pilar Prieto Martínez (Laboratorio de Arqueología y Formas Culturales (Landscape Archaeology Investigation Group), IIT. Edificio Monte da Condasa. USC - Santiago de Compostela, Spain), 17 pp.; "La ceramique de l'age du bronze moyen et recent en Italie Nord-Occidentale" by Laura Domanico ("The Old West Manse," Millport, Isle of Cumbrae, Scotland), 12 pp.; "La céramique gauloise armoricaine" by Marie-Yvane Daire (Chargée de Recherche du CNRS, UM 153, Rennes, France), 11 pp.; "Material values past and present: The intellectual history of the study of Greek ceramics" by Michael Vickers (Ashmolean Museum, Oxford, UK), 14 pp.; and "Experimental Firings at Vadastra, Oltenia, Romania: May 2001" by Alex Gibson (Department of Archaeological Sciences, University of Bradford, Bradford, UK), 7 pp.

The Experimental Pyrotechnology Group Newsletter (17 June 2002), edited by Dragos Gheorghiu and Kevin Andrews, is accessible via the Internet at <http://www.vadastra.ro/epg/news.html>. The newsletter has six articles relating to ceramic kilns: "Experimental Firing Group" by Kevin Andrews (3 pp., 2 images); "Excavation of an Experimental Pottery Kiln at Vadastra, Oltenia, ROMANIA - April 2002" by Alex Gibson (5 pp., 4 images); "Rapport sur la mission Roumaine du 29 Mars au 8 Avril" by Armand Desbat (14 pp., 8 images); "Report 'Project Vadastra 2002': Fieldwork Mission" by Mark Vander Linden (5 pp., 4 images); "Experimental Open Firing of Locally Sourced Clays at Vadastra, Southeast Romania" by Richard Carlton (6 pp., 8 images); "Report on the Construction of an Experimental 'Energy Efficient' Kiln" by Bruce Induni (11 pp., 7 images); and "Report on the Use of a Chalcolithic Kiln" by Dragos Gheorghiu (4 pp., 5 images).

Exhibitions and Catalog

The Grandeur of Viceregal Mexico: Treasures from the Museo Franz Mayer (Museo Franz Mayer and the Museum of Fine Arts, Houston; Austin: University of Texas Press, distributed for the Museum of Fine Arts, Houston, 2002, 379 pp., 180 color and 20 b-w illustrations, ISBN 0-89090-107-4, \$40.00 paper) was published in May 2002. A forward and five essays comprise the introductory materials for this exhibition catalog. All of the narratives and catalog entries are bilingual (English and Spanish). The contributors include D. Hector Rivero Borrell Miranda (Director of the Museo Franz Mayer, Mexico City), Peter C. Marzio (Director of the Museum of Fine Arts, Houston), David B. Warren (Director of Bayou Bend Collection, Museum of Fine Arts, Houston), Gustavo Curiel (cultural historian), Antonia Rubia García (historian), and Juana Gutiérrez Haces (art historian). This publication features extraordinary decorative and fine arts from the Mexican viceregal period (1521-1821) drawn from the collection of

Mexico City's Museo Franz Mayer. The catalog (pp. 77-362) includes a variety of specimens in decorative and fine arts (painting, sculpture, furniture, metals, textiles, featherwork, lacquer, and books) including ceramics (pp. 191-248), particularly Chinese porcelain (8 specimens, pp. 191-205) and Talavera ceramics (20 specimens, pp. 207-248). A basic bibliography of 91 items accompanies the essays and catalog. The exhibition schedule includes: Museum of Fine Arts, Houston (24 March-4 August 2002), Henry Francis du Pont Winterthur Museum, Delaware (16 October 2002-12 January 2003), and San Diego Museum of Art (6 March-25 May 2003). The University of Texas Press website is <http://www.utexas.edu/utpress/>

Cerámica y Cultura: The Story of Spanish and Mexican Mayólica is an exhibition scheduled for the International Museum of Folk Art in Santa Fe, MN for the period November 17, 2002 - September 7, 2003. The rich and complex history of the Iberian Peninsula and the Americas is explored and changes in ceramic form and style reflect relationships over five centuries between cultures as diverse as Christian and Moor, Spanish, Flemish, Italian, Mexican, Asian, and Native American. Emphasis is placed on how this Moorish ceramic art spread around the globe and evolved into Mexican talavera.

Additional information is available on the Internet at <http://www.museumofnewmexico.org/>

Research Opportunities

Thilo Rehren, Professor of Archaeological Materials and Technologies (Institute of Archaeology, University College London, 31-34 Gordon Square, London WC1H 0PY Great Britain; telephone (44) 20 7679 4757, FAX (44) 20 7383 2572, e-mail th.rehren@ucl.ac.uk) offers a range of possible research topics for MSc dissertations in the Institute of Archaeology's *MSc in Technology and Analysis of Archaeological Materials* program. Ideally these are for the academic year 2002-03, and most of them include the opportunity to participate in fieldwork during the spring or summer of 2003. They are derived from his ongoing research, and should result in a publishable manuscript as well as in a MSc thesis. The topics include: 1) Crucible steel slag from Akhsiket (early Islamic Uzbekistan); 2) Copper-based metallurgy from Akhsiket (early Islamic Uzbekistan); 3) Glass and glazes from Akhsiket (early Islamic Uzbekistan); and 4) Domestic and technical ceramic fabrics from Akhsiket (early Islamic Uzbekistan). All of these topics derive from a joint project with the Uzbek Academy of Sciences, Institute of Archaeology in Samarkand. Other research topics include: 5) Late Inka/early Spanish lead-silver smelting in Bolivia (jointly with the Department of Anthropology, Colorado State University); 6) Medieval lead-silver smelting in Britain; 7) 20th century lead-silver smelting in Laurion, Greece; 7) A study of glass and colorants of Byzantine glass tesserae from Israel; 8) LBA [Late Bronze Age] technical ceramics from a copper-centered workshop in Qantir/Egypt; and 9) LBA production of Egyptian blue from Qantir, Egypt. Details of the MSc program can be found at <http://www.ucl.ac.uk/archaeology/prospect/pgtaught/MScTech.htm>, and general information on the Institute of Archaeology UCL at <http://www.ucl.ac.uk/archaeology/>

Professional Meetings Held

Sukhothai-Sangkhlok Wares and Asia was the subject of a conference held in Bangkok, Thailand, 22-23 November 2001, organized by Kasetsiri Charnvit (Thammasat University, Bangkok). There is no website and I have been unable thus far to obtain additional information from Professor Charnvit.

The First International Conference on Late Roman Coarse Wares, Cooking Wares and Amphorae in the Mediterranean: Archaeology and Archaeometry held in Barcelona, 14-16 March 2002 was discussed in the last issue of the *SAS Bulletin*. An excellent summary of the 33 papers has been prepared by Louise Joyner (Department of Scientific Research, The British Museum, ljoyner@thebritishmuseum.ac.uk), and was published in *The Old Potter's Almanack* 10(2):9-11, 2002 (June). She also reported that there are plans to hold a subsequent conference in three years time in Provence, France. For readers interested in the 2002 conference papers and other information, the program is still available on the conference website at <http://www.ub.es/prehist/noticies/noticies.htm>

Non-destructive Testing and Microanalysis for the Diagnostics and Conservation of the Cultural and Environmental Heritage was the title of a conference held in Antwerp, Belgium, 2-6 June 2002. The conference dealt with all analysis and testing techniques that are non-destructive or micro-analytical in nature, and with their applications to cultural and environmental heritage items; both diagnostics and conservation aspects were treated. The previous ones took place in Rome (1999), Budapest (1996), Berlin (1994), Viterbo (1992), Perugia (1988), and Rome (1984). The latest conference, which had English as the official language, drew 282 participants and included 180 oral and poster presentations. Plenary lectures were given by A. Balis (BE), P. Brimblecombe (GB), M. Marabelli (IT), L. Moens (BE) and H. Römmich (DE); invited lectures were presented by N. Baer (US), E. Bulska (PL), D. Camuffo (IT), R. Cesareo (IT), Y. Chrysoulakis (GR), G. Demortier (BE), M. F. Guerra (PT), P. Jacobs (BE), R. Lefèvre (FR), N. Maravelaki-Kalaitzaki (GR), R. Mazzeo (IT), A. Moropoulou (GR), C. Neelmeijer (DE), C. Saiz-Jimenez (ES) and M. Schreiner (AT). The conference themes included "Cultural Heritage" — Monuments, architectural decorations, easel paintings, frescoes, ceramics, metals, glass, paper, textile, wood, etc.; and "Techniques" — Non-destructive testing, microanalysis, imaging, biological, microbiological and environmental characterization, authentication, documentation and archiving of data, etc. The abstracts of all the accepted contributions will be published in the "Book of Abstracts" of the conference and resulted in proceedings with over 2000 pages. Authors of poster contributions had the opportunity to present their posters during two sessions. The posters were on display during the entire conference. Authors of accepted contributions have been invited to submit an extended abstract with a maximum limit of 8 pages (A4 format) for publication in the *Proceedings*, to be distributed on CD-ROM (a hard-copy of the *Proceedings* will be available at an extra cost of 60.00 EUR).

Selected contributions will be invited to submit a manuscript

for inclusion in a dedicated book, to appear some months after the conference. Additional information may be found on the conference website <http://sch-www.uia.ac.be/art2002/>

The *First International Symposium on X-ray Archaeometry* was held at the International Conference Center at Waseda University (1-7, Nishiwaseda 1-Chome, Shinjuku-ku, Tokyo, Japan, 169-0051), 18-20 July 2002. The Society for the Study of X-ray Archeology and Waseda University organized the symposium, which was co-sponsored by The Meeting for the X-ray Analysis. The sessions included three public addresses, two sessions on "Fundamental Approaches," two on "PIXE and Nuclear Methods," two on "New Approaches," two slide sessions, and two poster sessions, with a Panel Discussion entitled "For close cooperation between archaeologists and X-ray scientists." The symposium abstracts were printed in a book of abstracts and made available on the conference Internet site. The symposium proceedings will be published, with presenters' manuscripts due 30 September 2002. The contributions will be refereed. Further information may be found on the website <http://www.dms.waseda.ac.jp/uda/X-Arch/eng/> Oral papers were presented by Izumi Nakai (Japan) "Synchrotron radiation from SPring-8 reveals locality of the Old Kutani China wares"; J. L. Ruvalcaba Sil (Mexico) "PIXE analysis of pre-Hispanic items from Mexico"; Toshikazu Mitsuji (Japan) "Studies on provenance problems of Japanese ancient ceramics by X-ray fluorescence analysis"; Songlin Feng (China) "Prepare [sic.] of microanalysis reference material for nondestructive analysis of Chinese ancient porcelain"; E. K. Lin (Taipei) "PIXE study on ancient Chinese porcelain made in Yuan Dynasty"; Yin Sha (China) "Study of ancient Chinese blue and white porcelains by external beam PIXE"; S. Cheng (China) "The study and appraisal of ancient Chinese porcelain by PIXE"; B. Constantinescu (Romania) "Ancient ceramics and glass compositional studies using nuclear methods"; E. Gliozzo (Italy) "A K- and L-edge XAS study of black gloss pottery from Etruria"; Y. Y. Huang (China) "Study of homogeneity of elemental distribution of ancient Chinese porcelains by synchrotron radiation X-ray fluorescence"; and Masumi Osawa (Japan) "Studies of archaeological ceramic objects by X-ray and instrumental neutron activation analyses." Poster papers included: Nachum Applbaum (Israel) "The use of medical computed tomography imaging in the study of ceramic and clay archaeological artifacts from the ancient Near East"; Yong Lei (China) "Study on the compositional differences among different Kilns 'Sancai of Tang Dynasty by microbeam synchrotron radiation X-ray fluorescence"; Lin Cheng (China) "Study of elemental spectra of ancient pottery from Xiyue Temple by SRXRF and clustering analysis"; Xianqian Feng (China) "Microbeam synchrotron radiation X-ray fluorescence application in the study of elemental distribution in ancient Chinese porcelains"; Dongyu Fan (China) "Study of elements in ancient celadon of Yue kiln"; Y. Sato (Japan) "High-energy synchrotron radiation X-ray fluorescence analysis for archaeological figurines at Edo period"; B. S. B. Karunaratne (Sri Lanka) "Possible use of energy or wavelength dispersive X-ray analysis in characterizing ancient ceramics"; and Z. A. Stos (United Kingdom) "External beam MicroPIXE applied to the study of porcelain, glass and glazed pottery."

The French Colonial Ceramics Conference sponsored by the National Park Service, Tunica-Biloxi Tribe of Louisiana, Louisiana Division of Archaeology, and Northwestern State University of Louisiana was held 6-7 September 2002 at the Mári Center, Tunica-Biloxi conference center, Marksville, Louisiana. The speakers and their presentations included: Gregory A. Waselkov and John A. Walthall "Faience Styles in French Colonial North America: A Revised Classification"; Marcel Moussette "French Colonial Pottery in the St. Laurence Valley"; Yves Monette "Documenting the Locally Made Common Earthenwares in the St-Lawrence Valley of the Pre-industrial Period, c. 1640-1880: The Emergence of a Ceramic Culture and the Characterization of its Products"; Vergil Noble "French Ceramics in the Midwest"; Edward Jelks "French Ceramics at Fortress Louisbourg and Other French Colonial Sites"; Randall W. Moir "An Interdisciplinary Look at French Faience and Related Wares for the Ceramic Specialist"; James Bruseth, Kathleen Gilmore, Nancy G. Reese and Mike Davis "Tracing La Salle in Texas - Studies in French Ceramics"; Shawn B. Carlson "Distribution of French Colonial Wares at the Texas Missions"; Henri Amouric and Lucy Vallauri "European Origins for French Ceramics in Louisiana"; Jason A. Emery "Faience in Louisiana? Distribution of Tin Enamelled Earthenware in the State of Louisiana"; Aubra L. "Butch" Lee "Pot, Pot, Who made these Pots? Medieval Mechanics as Applied in French Colonial Lower Louisiana during the Eighteenth Century"; Jill Yakubik "Ceramic Use in Late-Eighteenth-Century and Early-Nineteenth-Century Southeastern Louisiana"; John House "Wallace Bottom: A Colonial-Era Archaeological Context on the Lower Arkansas River"; and Pete Gregory and George Avery "French Ceramics from Northwest Louisiana." Questions regarding the conference may be directed to Pete Gregory 318/357-4364 gregoryh@nsula.edu or George Avery 318/357-4341 averyg@nsula.edu

Transport Amphorae and Trade in the Eastern Mediterranean is the title of an international colloquium sponsored by the Danish Institute at Athens, 26-29 September 2002. Contact Jonas Eirring, Assistant Director at the Institute jonaseirring@hotmail.com for details; Det Danske Institut i Athe/The Danish Institute at Athens, Herefondos 14, Platia Aghias Aikaterinis, Plaka, GR-105 58 Athen/ Athens, Grækenland / Greece; telephone (+3) 010 32 44 644, Fax: (+3) 010 32 47 230, e-mail: info@diathens.com Additional information is available on the institute's website at <http://www.diathens.com/new/index.htm> The six scheduled sessions include presentations oriented to : General Themes on Chronology and Trade, Asia Minor, the Black Sea, Cyprus, Egypt and the Levant, and the Western Mediterranean. The papers were: General Themes on Chronology and Trade (10 papers): Gérald Finkielsztejn, "Establishing the Rhodian Amphora Stamps Chronology: The Next Steps"; Vincent Gabrielsen, "Transport Amphorae as a Source for Economic History in Antiquity"; John W. Hayes, Title to be announced; M. Lawall, "Archaeology and Amphora Chronologies"; John Lund, "Oil on the Waters?"; Jerome Poblome, "The Interdependence of Roman Amphora and Tableware Exchange Patterns in the Eastern Mediterranean. A Quantextual Approach"; Jean-Francois Salles, "Le

commerce lointain: avec ou sans amphores"; Malcolm M. B. Wallace, "Amphora Capacities: New Evidence"; Ian Whitbread, Title to be announced; Elizabeth Lyding Will, "Amphoras and Trade"; and David Williams, Title to be announced. Greece (10 papers): Nathan Badoud, "Un dauphin aulète sur les timbres amphoriques de Thasos"; Francine Blondé and Yvon Garlan, "Les représentations de vases sur les timbres amphoriques thasiens"; Stella Demestica and Elias Spondylis, "Amphorae from Five Shipwrecks in the Aegean (Roman to Byzantine Period)"; Viktoria Georgopoulou, "Koan amphorae"; Gerhild Hübner, "Transport Amphorae of the Colonia Achaica Patensis (A Preliminary Report)"; Carolyn G. Koehler and Philippa M. Wallace Matheson, "Knidian Amphorae"; Marek Palaczyk, "Amphora Stamps from Eretria"; Kaare Lund Rasmussen, "Rhodian Amphora Handles from Lindos in the Light of New Scientific Analysis"; Kathleen Warner Slane, "Amphorae of the 4th to 7th Centuries AD"; and Natalia Vogeikoff, "New Evidence for Wine Production in Crete in the Hellenistic Period." Asia Minor (6 papers): Catharine Abadie-Reynal, "A Preliminary Presentation of Amphoras found at Zeugma"; Tamas Bezeczky, "Early Roman Food Import in Ephesus: Amphorae from the Tetragonos Agora"; Sabine Ladstätter, "Amphorae in the Destruction Layers of Hanghaus 1 and 2/Ephesus"; Vinnie Nørskov, "Amphorae in Contexts: Finds from Three Wells at the Mausoleum in Halikarnassos"; Nicholas Rauh, "Pirated Knock-Offs: Cilician Imitations of International Transport Amphoras"; and Gonca Senol et al., "Hellenistic Amphora Production in Knidos and the Rhodian Peraia."

Other contributions were on The Black Sea (8 papers): Niculae Conovici, "The Problems of the Chronology of the Sinopean Stamps"; Gerhard Jöhrens, "Stamped Amphora Handles and the Founding of Tanais"; Andrei Opait, "Aegean Amphorae from the Province of Scythia"; Karolina Paczynska, "Forlimpopoli Amphorae Imports at Tanais (2nd to 3rd centuries AD)"; Eduoksia Papuci-Wladyka, "Greek Amphorae from the Polish-Ukrainian Excavations at Koshary, Odessa District (4th-3rd Century. B.C.)"; Vivien Swan, "Dichin Supply Base (Bulgaria) and the Provisioning of the Lower Danube in the 5th and 6th centuries AD"; Dominique Kassab Tezgör and Hassan Erten, "Etude typologique et analyses de laboratoire pour le tracé des exportations des amphores sinopéennes à l'époque romaine en mer Noire et en Méditerranée"; and Sergei Vnukov, "All-Roman Amphorae Types Produced in Black Sea Region." Cyprus (4 papers): Craig Barker, "The Use of Rhodian Amphorae in a Hellenistic Funerary Custom in Nea Paphos, Cyprus"; Kristina Jacobsen Winter, "Regional Distribution of Transport Amphorae in Cyprus in the Hellenistic and Roman Periods"; Sandrine Maquié, "Early Roman Amphorae from Kition"; and Henryk Meyza, "New 'Kouriaka' - Stamps from the Acropolis of Kourion." Egypt and the Levant (6 papers): Donald Ariel, "The Stamped Amphora Handle Finds from Beth Shean: Evidence for the Urban Development of the City in the Hellenistic Period"; Catherine Aubert, "Les amphores rhodiennes de Beyrouth"; Pascale Ballet, "Some Aspects of the Amphorae Production in the Egyptian Chôra"; Grzegorz Majcherek, "Long-distance Trade of Roman Alexandria: The Amphora Evidence"; Dalit Regev, "Phoenician Amphorae";

and Roberta Tomber, "Recent Amphora Finds from the Red Sea Coast of Egypt." The Western Mediterranean (4 papers): Rita Aurigemma and E. Quiri, "Imports of Oriental Amphorae in the Adriatic Sea between First and Middle Empire"; Severine Lemaître, "Les processus de commercialisation des produits orientaux vers l'Ouest à l'époque impériale: l'apport des études amphoriques"; Daniele Malfitana, "History and Archaeology between Eastern and Western Mediterranean in the Hellenistic and Roman Period: Goods, Markets and People from Rhodes, Delos and the Aegean to Sicily: The Evidence of Pottery"; and Jane Timby, "Amphorae from Recent Excavations by Reading University at Pompeii." Posters on display throughout the conference included Kristiaan Göransson, "The Amphorae from Euesperides"; Gerhild Hubner, "Transport Amphorae of the Colonia Achaica Patrensis (A Preliminary Report)"; Chrissa Karadima, "Ainos: An Unknown Amphora Workshop in the Euros Delta" [in Greek]; Sabine Lanstätter, "Amphorae in the Destruction Layers of Hanghaus 1 and 2/Ephesus"; Karre Lund Rasmussen, "Rhodian Amphora Handles from Lindos in the Light of New Scientific Analysis"; and Denis Zhuralev and Gerogiy Lomtadze, "A Late Hellenistic Context from Panticapaeum."

Prehistoric Pottery: People, Pattern, and Purpose is the theme of the PCRG/CPG (Prehistoric Ceramics Research Group/Ceramic Petrology Group) Joint Autumn Conference that was held at The University of Bradford, 12-13 October 2002. Contact Alex Gibson (Department of Archaeological Sciences, University of Bradford, Bradford, BD7 0P1, e-mail a.m.gibson1@bradford.ac.uk) for further information. See also the groups' Internet sites <http://www.prehistoric-ceramics.org.uk> and <http://www.ceramicpetrologygroup.uklinux.net/>

The Jordan Valley in the Bronze and Iron Ages: A Presentation of Recent Excavation of, and Research on Sites in the Jordan Valley was the title of a one-day conference held 4 November 2002 at the British Museum, London. Presenters included Gerrit van der Kooij (Archaeology of the Middle East, Leiden University) on "Recent Excavations and Research at Tell Deir 'Alla"; Jonathan Tubb (Curator of Syria-Palestine in the Department of the Ancient Near East, British Museum) on "Recent Excavation and Research on Tell es-Sai'idiyeh"; Rachael Sparks (Curator, Petrie Palestinian Collection, University College London) on "Gypsum Workshops in the Jordan Valley in the Bronze and Early Iron Age"; and Xander Veldhuijzen (doctoral candidate, University College London) on "Results of the 2000 Season at Tell Hammeh (az-Zarqa): Excavation and Analysis of the Iron Age Ironsmelting Operation." Additional information and abstracts are available at <http://www.ironsmelting.net/www/conf/>

The 69th Annual Meeting Eastern States Archaeological Federation (ESAF), hosted by the Archaeological Society of New Jersey, was held 7-10 November 2002 at the Wyndham Hotel, Mount Laurel, NJ. Two papers featured ceramic materials: "Channelware: A Stylistic Fluorescence in Late Huron Ceramics" by Nick Gromoff (University of Toronto) and "More Than Just Bricks" by Edward F. Heite (Heite Consulting). Additional information is available on the ESAS website at <http://www.siftings.com/esaf02pre.html>

The Archaeology of Qumran. Recent Finds and Discussions is the title of a conference hosted by Brown University was scheduled 18-19 November 2002. This conference is sponsored by the Center for Old World Archaeology and Art (and co-sponsored by the École Biblique et Archéologique Française de Jérusalem as well as various other Departments of Brown University) and will take place at the Brown Faculty Club. The prospectus notes that more than 50 years have passed since the discovery of the Dead Sea Scrolls and the excavation of the site of Qumran. In the late 1960's, Father de Vaux from the Ecole Biblique et Archéologique Française, was invited by Brown University to present the results of his excavation and share his insights with the scholarly world. Since then, more books and articles have been written on the subject than on any other site in the Near East. Yet, it is the scrolls that have stood in the spotlight and those who have tried to understand and explain the mysteries of the site are mostly historians of religion. The archaeology of the site and the surrounding area has often played a minor, auxiliary role. At the proposed conference past and recent archaeological discoveries at Qumran and the area will be presented and discussed. The proceedings of this international conference will be published and will constitute an important collection of scholarly contributions to the archaeology of Qumran and its historical and geographical context. The conference conveners are Katharina Galor at Brown University (e-mail katharina_galor@brown.edu) and Jürgen Zangenberg, Dr. Theol., University of Wuppertal, Germany (e-mail zangenberg@t-online.de)

American Schools of Oriental Research (ASOR) annual meeting was scheduled 21-23 November 2002 in Toronto, Ontario, Canada. Among the 237 presentations were 12 ceramic-related presentations that included: Doreen Danis Barako (Texas A & M University) "An Analysis of the Galley Ware from a Ninth-Century Shipwreck at Bozburun, Turkey"; Daniella E. Bar-Yosef Mayer (Peabody Museum, Harvard University), Naomi Porat (Geological Survey of Israel), Zvi Gal, Dina Shalem, and Howard Smithline (Israel Antiquities Authority) "New Evidence for Chalcolithic Pyrotechnology"; Margreet Steiner (Leiden University) "A Study of the Iron Age Pottery of Kirbet Al-Mudayna"; Gloria London (Burke Museum) "Women Potters and Craft Specialization in a Pre-Market Cypriot Economy"; Patricia Paice (Society for the Study of Egyptian Antiquities, Toronto) "Egyptian Destinations for Phoenician Store Jars"; Edwin C.M. van den Brink (Israel Antiquities Authority) "Pottery-Incised Serekh-Signs of Dynasties 0-1 from Egypt and the Southern Levant: An Update"; Alice Petty (Johns Hopkins University) "The Meaning and Function of Terracotta Figurines: The Archaeology of Household Cult and Magic"; and Nancy Serwint (Arizona State University) "The Terracotta Sculptural Corpus from Tell Halif."

A special session entitled "Problems in Ceramic Typology" included papers by Hanan Charaf (Institute Français d'Archéologie du Proche-Orient, Beirut) "Cypriote Pottery of the Bronze Age at Tell 'Arqa, Lebanon." Abstract: The archaeological excavations at Tell 'Arqa, one of the largest sites in northern Lebanon, have produced over 330 Cypriote

vessels from the Middle and Late Bronze Ages. The importance of this corpus is that it forms one of the largest and most representative assemblages yet to be found in Lebanon. This includes well-stratified occurrences of nearly all Cypriot imports to the Levant at this time, such as Base-Ring, White Slip, White Painted V, Monochrome and White Shaved wares. The substantial number of imports, found together with the local material in sealed contexts, provides us with a basis for comparison with other northern Levantine sites such as Alalakh and Ugarit, and for suggesting a relative sequence of Middle to Late Cypriot pottery. The Tell 'Arqa material can also serve as a point of departure for synchronization with southern Levantine assemblages, where the typological development is different, but the same types of Cypriot vessels are represented.

Celia Bergoffen (SCIEM 2000) "A Diagnostic Late 15th-/Early 14th-century Assemblage of Imported Cypriot Pottery from Niqmepa's Palace of Alalakh." Abstract: The palace of Niqmepa at Tell Atchana, ancient Alalakh may be dated on the basis of historical and epigraphic evidence to within a fairly narrow range between the later 15th to early 14th centuries. The assemblage of Cypriot imported pottery found in this building, diagnostic of LC IB, includes a number of remarkably large and fine vessels destined for its elite clientele. The well-dated context makes this collection an important anchor for Cypriot chronology.

Joseph Weinstein (BBN Technologies) "MBII Storage and Shipping Jars from the Jericho Tell: The Problem of Typology." Abstract: The fine-grained stratigraphy of Kenyon's half-century-old excavations in Area H at Tell el-Sultan (Jericho) and the extensive catalog of rim sherds subsequently published by Holland provide an excellent opportunity to study the diachronic development of MB II storage and shipping jars. To facilitate the analysis, a rim-form-based typology is introduced that seeks to distinguish significant from non-significant variations by exploiting theoretical and empirical models of correlations of rim form with function, manufacturing technique, whole-vessel form, time, and place of manufacture. The results reveal a major transition during Stage H.IX, when necked pithoi with "double-folded" rims displace the wide-mouthed "deep globular bowls" of earlier stages. This transition is critical to establishing the correlation of the Tell strata with Kenyon's tomb groups. It also confirms the identification of the MB IIA/B transition with the end of Stage H.IX that I previously proposed on the basis of cooking pot typology. Comparison of rim forms from the earlier stages with those of storage jars and shipping containers from Aphek suggest that the Area H stratigraphic sequence begins well back in the pre-Palace phase of the MB IIA period, suggesting that re-urbanization in the Jordan valley began not long after re-urbanization in the coastal plain.

The final paper in this session, given by Robert A. Mullins (W. F. Albright Institute) was "Towards an MB-LB Typology for the Levant" but had no abstract available. Additional information and abstracts of the papers may be found on the ASOR website at <http://www.asor.org/AM/am.htm>

Ceramic Ecology XVI: Current Research on Ceramics — 2002, the 16th annual ceramic ecology symposium was held at the annual meeting of the American Anthropological

Association in New Orleans, Louisiana, 20-24 November 2002. The session was co-organized by Charles C. Kolb (National Endowment for the Humanities) and Louana M. Lackey (Maryland Institute College of Art) and chaired by Kolb. The symposium abstract, and abstracts of the ten papers follow. The discussant for this year's symposium was Sandra López Varela (Universidad Autónoma del Estado de Morelos, Cuernavaca, México). The papers in this international and interdisciplinary symposium, the 16th in the annual series, reflect a number of approaches within the framework of Frederick Matson's concept of Ceramic Ecology, set forth in his volume, *Ceramics and Man* (1965). In this work Matson - a ceramic engineer, archeometrician, ceramic ethnoarchaeologist, and ethnographer - stated that "unless ceramic studies lead to a better understanding of the cultural context in which ceramic materials were made and used, they form a sterile record of limited worth." Ceramic Ecology as a methodological and theoretical approach has as its paramount goal a better understanding of the peoples who made and used pottery and seeks to redefine our comprehension about the significance of these materials in human societies. The concept of Ceramic Ecology is contextual, multi- and interdisciplinary, and analytical. On the one hand, it seeks to evaluate data derived from the application of physiochemical methods and techniques borrowed from the physical sciences within an ecological and sociocultural frame of reference. It relates environmental parameters, raw materials, technological choices and abilities, and sociocultural variables to the manufacture, distribution, and use of pottery and other ceramic artifacts. On the other hand, interpretation of these data and explanations of the ceramic materials utilize methods and paradigms derived from the social sciences, humanities, and the arts. The concept of Ceramic Ecology forms an implicit or explicit basis of the investigations reported by archaeologists, ethnographers, and others in this symposium in which emphasis is placed upon the technological and socioeconomic aspects of ceramic materials regardless of chronology or geography. It also demonstrates the value of the cross fertilization which results when investigators ranging from art historians and professional potters to ethnoarchaeologists and archeometricians come together in a forum devoted to a topical consideration: ceramics. These papers continue a symposium series initiated at the 1986 AAA meeting by students of ceramic materials who are members of the informal "Ceramic Studies Interest Group," an organization formed at Matson's suggestion. The individual paper abstracts follow.

Peter Grave (University of New England, NSW, Australia), Lisa Kealhofer (Santa Clara University), and Ben Marsh (Bucknell University), "Ceramic Characterization and GIS Modeling of Ancient Land Use at the Phrygian Sanctuary of Dumrek, Central Anatolia." Ceramic fragments recovered from archaeological survey are a core component for resolving prehistoric land use changes over time and space. However, sherds pose significant problems for the analyst, as the collected assemblage often vastly outnumbers the subset of ceramics used to model ancient landuse practices. In addition, standard chronology building for survey ceramics relies on the identification of diagnostic fragments in the survey assemblage. Typically an insignificant percentage of the total survey

assemblage recovered, diagnostics cannot be considered representative of the overall assemblage. To address these problems and to gain a better understanding of changing activity patterns at the Phrygian sanctuary site of Dumrek, central Anatolia, we have developed an approach to access information otherwise latent in the total ceramic assemblage. As in all classification strategies, the Gordion Regional Survey (GRS) ceramic protocol aims to structure the variability represented into a set of culturally meaningful groups. The protocol analyzes *all* of the sherds collected, reducing assemblage variability in several integrated stages: field fabric sorting, sherd refiring, elemental, and petrographic analysis. Using GIS, a complex and very large multifaceted database, combining the analytically derived ceramic classes with environmental and contextual data, can be readily manipulated to evaluate a range of alternative scenarios for the sacred landscape of a major Phrygian sanctuary.

Dean E. Arnold (Wheaton College, IL), "Linking Society with the Compositional Analyses of Pottery: A Mode; from Comparative Ethnography." Although the chemical analyses of pottery (utilizing such techniques such as INAA) are commonly believed to reveal the provenance of pottery, the data from such analyses are really far removed from the behavior of potters and the society in which they live. Those who use these analyses employ terms such as 'source', 'reference group' and 'fingerprint', but these terms are geological ('source') and statistical ('reference group') and have no inherent link with the behavior of potters ('fingerprint' of what socially?). When a variety of factors that contribute to compositional variability of pottery are considered, one wonders what such chemical analyses actually mean in terms of the behavior of the potters and the society from which they come. This paper provides three linking concepts derived from comparative ethnography that link INAA analyses of pottery to the behavior of potters that provide a middle range theory for the interpretation of the chemical analyses of pottery. These concepts have emerged from the INAA of ethnographic pottery and raw materials (N = 845) collected and analyzed over a period of 32 years from seven different communities in two distinct geological areas in Latin America.

Marilyn Beaudry Corbett (Cotsen Institute of Archaeology, UCLA) and Thomas W. Cuddy (University of Maryland), "Using Ceramic Themes to Determine Cultural Corridors in North Central and Northeastern Honduras." The understudied north central and northeastern Honduran regions of Central America have been subjected to very little systematic archaeological investigation. Their location along a natural avenue between Mesoamerica and southern Central America leads to questions about the extent and nature of connections with these other culture areas. Even social growth and interactions within the regions are poorly understood. This study examines selective samples of ceramics to provide details about a wide array of influences impacting populations in these areas. A methodological approach using ceramic themes, conceived as a combination of motifs and morphology, allows us to plot the spatial distribution of cultural symbols. The distribution can then be evaluated against other archaeological data to make inferences about the type of connections that were operative.

We hope to provide evidence for the nature of political economy throughout Central America and its impact on settlements in north central and northeastern Honduras. Aspects of ethnic and linguistic affiliation are considered as well as temporal variability in interregional communication.

Joseph Mountjoy (University of North Carolina at Greensboro) "Ceramic Strainer Pots of Middle Formative Mesoamerica." A ceramic pot of the "superimposed vessels" type recovered in 2001 from excavations in a Middle Formative cemetery at El Pantano, Jalisco was found to have a perforated ceramic plate in the neck, separating the upper and lower sections of the vessel. This find confirms a second-hand description of such a vessel related to Isabel Kelly by a looter and attributed by him to a Capacha cemetery at Quintero, Colima. The looter suggested the vessel might have been used to make medicinal tea. This idea is examined in relation to possible West Mexican plant materials that might have been filtered in such a vessel, as well as to possible implications for the interpretation of some other thus-far enigmatic Middle Formative "superimposed vessel" shapes which include "jar-in-mouth-of-jar" vessels from El Pantano, Jalisco, Capacha "trifid" vessels from Colima, and "bottle-in-vase" vessels from Tlatilco in Central Mexico.

Frances Ahern (Retired), "Coastal Mixtec and Amuzgo Pottery Differences, Mexico." This ethnoarchaeological study (1989-1995) examines pottery production and distribution within the areas occupied by two ethnic-linguistic groups in the southwestern corner of the state of Oaxaca and the southeastern corner of the state of Guerrero in the foothills along the Pacific coast of Mexico. A study of the work of Amuzgo and Mixtec potters in seven coastal communities shows that production methods are basically the same: only women pot; pots are formed by molding and coiling, surfaces are burnished; pots traditionally have been open fired but now several communities use updraft kilns. However, Amuzgo and Mixtec potters take the time to decorate their water carrying and storage containers, and do so differently; elements of the designs used are found on other items of the material culture. A ceramic census to identify the distribution area of decorated tinajas and cantaros (water storage and carrying jars) shows that the ceramic boundary is conterminous with the ethnic-linguistic group boundary, not with the distribution area of specific pottery production sites. The ceramic census also reveals that water and cooking vessels of different shapes are present in different quantities in the houses of the two groups and; because hearth style in Mixtec and Amuzgo cooking areas differs, that there are more comales (cooking griddles) of various sizes in the Amuzgo house. These findings suggest that ceramic and related aspects of the material culture may serve to identify ethnic-linguistic boundaries.

Mary S. Thieme (Gulf Coast Community College), "Changes in the Style of Production and Distribution of Pottery in Santa Maria Atzompa, Oaxaca." The potters of Santa Maria Atzompa, a town located near the archaeological site of Monte Albán in Oaxaca, Mexico, have been making pottery for at least 500 years. Beginning in the mid-1990s, to a large extent as the result of public concern, publicity, and the legislation about the lead glaze which they have used since Colonial times,

they have changed the style, distribution, and social context of production. This paper will examine those changes in the context of previous research.

Cynthia Pinkston (University of Maryland), "Fragmentary and Disputed Witnesses: Amplifying Current Knowledge of Oaxacan Ceramic Sculpture by Studying a 19th Century Collection." Ceramics are perhaps the most consistent markers of culture, often occurring in such profusion that they almost defy classification. This was certainly true over 100 years ago when Louis H. Ayme, photographer, writer and would-be archaeologist, worked in Mexico for the Smithsonian Institution. Neither the long time depth of indigenous civilizations in Oaxaca (nor their complexity and sophistication) were then understood and Ayme's collections, including archaeological and ethnographic objects, represent a venture into an unknown area and a response to the "museum building syndrome" of his era. This paper focuses on the ceramic urns and figurines he gathered from several areas of Oaxaca -cataloguing and localizing them at least tangentially in still existent letters. Over 200 heads, fragments and entire figurines as well as approximately 30 complete and partial "urns" are part of Ayme's legacy and may now be more confidently inserted into Oaxaca's archaeological record because of work by the Proyecto Especial Monte Alban, 1992-1994. Their recent publications provide a systematic framework for ceramic classification and dating, encompassing previous and current research. Because questions of authenticity continue to haunt the corpus of Oaxacan urns, NAA testing is planned for some of the Ayme materials. Studying these ceramics, all collected during one specific time period, will hopefully provide an example for utilizing older collections – encouraging their careful employment as witnesses to past traditions.

Mary Hopkins (Independent Scholar), "Ya esta terminando la loza rojo — The Redware is Ending." Ethnographic literature suggests that most potters will quit whenever they accumulate enough resources to make retirement possible (Foster 1965). All my informants in San Sebastian Xolalpa, Estado de Mexico, stopped potting in the 1990s. Ethnographic work done in the 1980s had suggested several reasons to expect this, including widespread acceptance that the industry was dying. Given the economic situation in Mexico, sudden prosperity seemed an unlikely cause. Retrospective interviews were conducted in 1999-2002, both with ex-potters and with their children and grandchildren who had chosen not to become potters. Reasons given for production cessation were diverse, and mostly unrelated to my preconceptions. The potters had indeed not gotten rich; demand was unabated (many ex-potters were retailing pottery made by others); no one acknowledged having stopped potting due to dislike of the work. Most ex-potters named social and administrative motives for switching to other lines of work.

Louana M. Lackey (Maryland Institute College of Art), "Putting Together the Pieces: Current Research in Ceramic Studies." Members of the informal "Ceramic Studies Interest Group" use a number of approaches in their search for answers to their questions. In this paper I will discuss some of their many current problems and projects in ceramic studies that have been reported to me by mail, e-mail, and telephone.

Examples include work from both the Old and New Worlds — work that uses approaches that include archaeology, ethnoarchaeology, ethnography, and technical analysis. Many of these field and laboratory investigations are still in progress and have not yet reached a final "paper ready" stage. Many of the investigators of work "in progress" invite input from colleagues. Other projects have been too recently completed for a "final report" and, for others, results are in press, or have been too recently published to be generally known.

Forthcoming Professional Meetings

The 7th Annual Symposium On Mediterranean Archaeology (SOMA) will be held at the Institute of Archaeology, University College London, 21-23 February 2003. SOMA provides a forum for the discussion of Mediterranean archaeological research conducted at postgraduate level, attracting researchers from within the UK, Europe and beyond. Scholars from a wide range of archaeological and related backgrounds are encouraged to participate. Specific themes will be chosen as a direct result of the participants' interests and abstracts, and any aspect of archaeology can be addressed from any period (from prehistory to present) and any region of the Mediterranean. The organizers encourage a wide range of topics and themes for sessions encompassing theoretical and scientific approaches in archaeology, and interrelated disciplines including public archaeology, site management and museum studies. New theoretical and methodological approaches to archaeology will be encouraged from a diverse range of topics, including: cultural transmission and social change, social identity, the archaeology of gender, trade and economy, settlement and landscape, spatial studies, technology, production and materials, religion and ritual, mortuary archaeology, environmental archaeology, landscape and settlement, diet and demography, and relationships between history and archaeology. The Committee members are Camilla Briault, Jack Green, Anthi Kaldelis, and Anna Stellatou. They indicate that papers should take the form of 15-minute presentations (with an additional five-minutes allotted for discussion) and participants are invited to submit a 150-200 word abstract including basic geographical, chronological and methodological details (the conference website provides additional details). Workshops were well received at SOMA 2002, so please contact the SOMA Committee if you have a workshop theme in mind. The deadline for the receipt of abstracts was 6 December 2002; e-mail abstracts to: soma_ucl_2003@yahoo.co.uk To register for SOMA 2003, please visit the website and print out an application form: <http://www.ucl.ac.uk/%7Etrcnais/>

UK Archaeological Sciences 2003 is a conference scheduled for St. Anne's College, University of Oxford, 2-5 April 2003. For further information, visit the website at <http://users.ox.ac.uk/~ukas2003> or contact the Laboratory for Archaeology and the History of Art, 6 Keble Road, Oxford OX1 3QJ, UK or e-mail ikas2003@rlaha.ox.ac.uk.

The 4th Symposium on Archaeometry (reported briefly in the previous column of the *SAS Bulletin*) is organized by the Hellenic Society of Archaeometry scheduled to be held in Athens Greece in May 2003 and has as a theme "Archaeometry

Studies in the Aegean: Reviews and Recent Developments.” Additional information is now available. The Organizing Committee: Yorgos Facorellis, Nikos Zacharias, Kiki Polikreti, Themis Vakoulis, Ioannis Bassiakos, Eleni Aloupi, and Evangelia Kiriati. The symposium aims at providing a forum for the discussion and presentation of recent research and trends of archaeometry pertaining to the prehistory and classical antiquity as well as Byzantine and recent times. The main topics to be covered in the Symposium will be: Science-based dating, Technology and Provenance of archaeological materials (ceramics, metals, glass, stone, mortars, pigments, etc.), Remote Sensing, Geoarchaeology, Biomaterials, Organic Residues, Research in Conservation Science, Mathematical Methods. The Symposium schedule will also include a specific theme session, which focuses on the Aegean and the presentation of reviews and developments of the archaeometry studies over the past 20 years. Abstract Submission: Those wishing to present a paper should send abstracts in either English or Greek to the Symposium Correspondence Address. Abstracts should be at least 400 words in length but not exceed 500 words. All abstracts will be reviewed by a committee that will make recommendations for acceptance and manner of presentation of the paper (oral or poster). The abstracts should clearly list the author(s) and the address(es) at the top of the page. The name of the author presenting the paper should be underlined. The text of the abstract must state the main items of interest, the methodology as well as the results and principal conclusions of the paper. References, if used, should be in the format of the journal *Archaeometry*; the official languages of the symposium are Greek and English. All papers presented either as oral communications or as posters may be submitted for publication in the *Symposium Proceedings*; these should be written in English. Several “well-known journals” are possible candidates for publication of the Proceedings. An International Scientific Committee will review the manuscripts prior to acceptance for publication. The following dates are provided: 20 September 2002 was the target date to fill-out and return the response form; 20 November 2002 is the deadline for submission of Abstracts; 15 December 2002 is the date for issuing the second circular containing more details about the Symposium. The latter will be sent to those who have returned the response form. The symposium website is <http://www.archaeometry.gr/symposium2003>

Understanding Man through his Pottery is the theme of the 7th European Meeting on Ancient Ceramics (EMAC) scheduled for 27-31 October 2003 in Lisbon, Portugal. Information is available on the conference website at <http://www.itn.pt/EMAC03> or at EMAC '03, c/o Instituto Tecnológico e Nuclear, Estrada Nacional 10, 2686-953 Sacaven, Portugal; e-mail emac03lisbon@itn.pt This meeting was mentioned in the last issue of the *SAS Bulletin* but additional information is now available; see <http://itn1.itn.pt/EMAC03/> The four scientific topics include: 1) Characterization of material culture, technologies and organization of pottery production, resource exploitation strategies and spatial interaction patterns through time; 2) Dating ceramics; 3) The importance of ceramic materials to metallurgy; and 4) Anthropological approaches for a better understanding of the social rules of ancient potter.

The Organizing Committee, M. I. Prudêncio, M. I. Dias, and J. C. Waerenborgh (Cultural Heritage and Science s Group, Instituto Tecnológico e Nuclear, Lisbon, Portugal) report that the official language of the conference will be English. Members of the Scientific Committee include: L. Appolonia (S. B. A. Culturali, Italy); R. Chapoulie (Michel de Montaigne University, CRPAA, Bordeaux, France); P. M. Day (University of Sheffield, U.K); M. Maggetti (University of Fribourg, Switzerland); Y. Maniatis (Laboratory of Archaeometry, NCSR Demokritos, Greece); J. Perez-Arantegui (University of Zaragoza, Spain); F. Rocha (University of Aveiro, Portugal), G. Schneider (FU Berlin, Germany); A. Sequeira-Braga (University of Minho, Portugal); M. S. Tite (Oxford University, U.K); and M. Vendrell-Saz (University of Barcelona, Spain). The meeting will be held at the Fundação Calouste Gulbenkian, Avenida d Berna 45 A, Lisbon, Portugal. The deadline for the submission of abstracts is 15 April 2002, with notification by 15 June 2002. The length of an abstract is limited to 200 (min.) - 400 (max.) words including formulae (images are not accepted). Please see the examples ([pdf/abs_rules.doc](#) or [pdf/abs_rules.pdf](#) [pdf/abs_rules.pdf](#)). Abstracts can be submitted as hard copy sent to secretariat, or via e-mail to emac03lisbon@itn.pt as an attached file in MS Winword or pdf format.

35th *International Symposium on Archaeometry* is scheduled to be held in Zaragoza, Spain, 3-7 May 2004. Additional information will be found in future issues of *SAS Bulletin*. Links to future, present, and selected past meetings related to Archaeometry may be found at http://srs.dl.ac.uk/arch/arch_meetings.html

Databases

Anthropology Collection Database published and produced by the Department of Anthropology at the California Academy of Sciences became available on-line in July 2002. The overall collection contains approximately 17,000 ethnographic or archaeological objects of indigenous cultures of western North America (exclusive of Mexico), the Pacific Rim (including all Pacific islands and East Asia), the US Southwest and the Pacific Islands, East Africa, the Middle East, Europe, and Central and South America. Although a work-in-progress, the database currently includes 7,000 digital images, and is searchable by category, object name, materials, maker's name, collection, culture, global region, country, state, or county. Searching “ceramics” produced no hits, while “pottery” yielded four hits of unprovenienced materials. The URL is <http://www.calacademy.org/research/anthropology/collections/collintro.htm>

The Loss of Two Ceramic Collections: Collard Ceramics Collection and Minton Museum Collection

Collard Ceramics Collection (*Destruction of Elizabeth Collard's Ceramics Collection* by George L. Miller, HISTARCH [Historical Archaeology] Listserv, 22 July 2002 [Rewritten and emended by the editor, CCK]) Elizabeth Collard's death in January 2002 was a great loss to the world

of historic ceramic research. She spent a lifetime doing research on ceramics in Canada and her book *Nineteenth-Century Pottery and Porcelain in Canada* (Kingston: McGill-Queen's University Press, 1967; rev. ed. 1984) is the standard reference on the subject. She also published *The Potters' View of Canada: Canadian Scenes on Nineteenth-century Earthenware* (Kingston: McGill-Queen's University Press, 1983). The latter is a synthesis of documentary research from old Canadian newspapers and business records with ceramics that could be documented as having a Canadian context. She received The Order of Canada medal in recognition of her research on ceramics in Canada. Her husband, Edgar Collard, was a newspaper editor in Montreal for most of his career, had previously been awarded the Order of Canada for his long running newspaper column on Canadian history. The Collards retired to Ottawa, Canada in the late 1970s. Elizabeth Collard's well-documented collection of ceramics is about to be dispersed by the Trustees of the University of Toronto who are preparing to have the collection auctioned off by Sotheby's. Edgar Collard accumulated an important library on Canadian History that he intended to leave to the University of Toronto. But it appears that after his death, the Collards' will was not revised so that the University of Toronto is to receive the ceramics collection as well as the library. The Collards' library will likely become a special collection at the University but the Trustees do not seem to recognize the importance of the ceramics collection as a research resource.

George L. Miller calls the collection a "National Treasure," and stated that he got to know Elizabeth and Edgar Collard when he worked at Parks Canada in Ottawa. He also reports that "Elizabeth often talked about her well-documented collection going to the National Museum of Canadian [sic.]. I understand from friends in Ottawa that over the last couple of years she had been turning pieces over to the National Museum after cataloging them.

"I urge my Canadian colleagues to write to the University of Toronto and to Canadian newspapers such as the *Toronto Globe and Mail* and the *Ottawa Citizen* to express what a loss the sale of this collection would be to Canada and future scholars." George L. Miller (George_Miller@URSCORP.COM); see also HISTARCH@asu.edu and Canada Science and Technology Museum (<http://www.science-tech.nmstc.ca/>)

Minton Museum Collection (*Ceramic Collection Broken Up*, by Will Bennett, Art Sales Correspondent, *The Daily Telegraph* 24/07/2002). One of Britain's greatest collections of ceramics was split up at an auction in London yesterday despite last-minute attempts to keep it together for the nation. Paul Atterbury, one of the experts on BBC's *Antiques Roadshow*, condemned the sale, saying it was "the casual destruction of heritage for short term reasons." The Minton Museum Collection, provided a record of Minton's ceramics from its foundation in Staffordshire in 1793 until modern times, was sold by Royal Doulton for £832,604 at Bonhams in London. A week before the sale the company, which lost £14 million last year, turned down an offer of £675,000 for the collection from the Potteries Museum and Art Gallery in Stoke-on-Trent. After commissions, Royal Doulton will receive less

than the museum's offer. The Potteries Museum managed to buy some of the pieces at the auction including a five foot 1873 majolica peacock, which netted £117,750, the highest price of the day. Liam Herbert, head of corporate communications for Royal Doulton, said: "The sale was part of our business restructuring strategy."

Miscellaneous News

Thomas Davenport's Pottery located in Parowan, Utah has been studied by Timothy Scarlett, who provides a variety of information about an potter who emigrated from England and settled in Utah in the late 1800s. INAA, SEM, and archival, museum, and economic data are combined in this brief assessment. Changes in clay types and mixtures are documented and he differentiates Parowan sherds from pottery made at Fountain Green, Utah, two other potteries in Salt Lake City, and at Hyrum and Panguitch, Utah. Particularly noteworthy is the use of pottery shop data to plot sales distributions. Using the US Census and Business Directories, Scarlett and Aaron Crawford located where the purchasers of the pottery lived and with a GIS shell for Salt Lake City documented the purchasers' locations including store owners and private residences. The website has a map from 1893 and it is anticipated that when other maps are completed, they can show diachronic changes in distribution patterns. Visit the site, "The Whole Enchilada," at http://www.geocities.com/danno_ulpius/timarch/1.html

Electronic Archaeological Databases. On 5 August 2002, Harrison (Nick) Eiteljorg, II (Director, CSA) announced the termination of the Archaeological Data Archive Project. He reported that "the Board of Directors of CSA has determined that the Archaeological Data Archive Project should cease operation, effective immediately. Potential users are urged to contact the Archaeological Research Institute at Arizona State University, <http://archaeology.asu.edu/> After nearly a decade, the quantity of materials received and stored in the Archaeological Data Archive remains very small, and all files will be returned to the owners in current forms so that they can see to their proper care and preservation elsewhere. There appear to be two insurmountable problems with the archives. One is the absence of any real possibility for assembling a large enough body of material to be truly useful within a reasonable time. This reflects primarily the unwillingness of scholars to deposit materials in the archive, though that resistance has been passive, since the need for archival care is obvious. In addition, many projects with digital records have not concluded and therefore are not yet concerned with archival storage of those digital records. The second is the inability of the Archaeological Data Archive to become self-sufficient within the next decade or so. This problem is common throughout the academic world and is generally seen as a major impediment to the creation of digital archives. Data depositors may be willing to pay for deposit and long-term preservation, but there has been no evidence of that for the near term. Nor has there been any evidence that sufficient data will be deposited within the next decade or so to create a truly useful archive that might be funded by users or grants. This is all the more

cogent because the history of the discipline does not offer many examples of prompt sharing of information from excavation or survey. Archaeologists have too often treated their objects and their data as privately owned. The termination of the operations of the ADAP does not change the need for appropriate repositories for digital data from archaeological research. Nor does it reduce the ethical requirement to preserve the data. It does highlight the problems associated with this archival work. Archaeology is hardly alone in finding it impossible to fund an archives for digital data. Archaeologists will, however, be taken to task more strongly than many scholars will because their data cannot be recreated, once lost. Their experiments cannot be replicated.” Harrison Eiteljorg, II, Director, CSA, nicke@csanet.org

James (Jim) E. Landrum III (Archaeology Materials and Technologies Laboratories, North Dakota State University, Fargo, ND USA 58105; Archaeology Materials Laboratory (AML) telephone. 701/231-8059, Archaeology Technologies Laboratory (ATL) telephone 701/231-6434; e-mail James.Landrum@ndsu.nodak.edu), responded on 7 August. “The decision made to terminate the Archaeological Data Archive Project (ADAP) is unfortunate. It should be noted, however, that despite Dr. Eiteljorg’s understandable dismay about the cessation of the ADAP, there is in existence an Internet-accessible, anthropological digital archive. This archive addresses archaeological, cultural heritage, culture history, ethnography, physical, biological, and paleoanthropological resources and associated documents. The archive has the capability of delivering via the Internet all forms of multimedia (e.g., 2D graphics, 3D models, and streaming and multicast video). The National Science Foundation’s National Science Digital Libraries (NSDL) program has provided substantial support to the North Dakota State University (NDSU), Archaeology Technologies Laboratory (ATL), to further develop the Digital Archive Network for Anthropology (DANA). DANA is intended to be a distributed network system that connects remotely located anthropologically-oriented databases and archives around the globe. The DANA application is designed to facilitate Internet-based connectivity through a single interface to query and retrieve data from anywhere. DANA content is freely accessible to all levels of audience, from K-12, secondary, post-secondary educational institutions, memory institutions (e.g., Museums, the professional Cultural Resources Management [CRM] community, the general public, and life-long learners). A peer-reviewed article on DANA was recently published in the Journal of Digital Information (JoDI) and can be reviewed at <http://jodi.ecs.soton.ac.uk/Articles/v02/i04/Clark/> Individuals, institutions, and organizations interested in further information and for inquiry about participation in DANA should contact Dr. Jeffrey T. Clark (Director Archaeology Technologies Laboratory, North Dakota State University, telephone:701/231-6434, e-mail Jeffrey.Clark@ndsu.nodak.edu).” The ATL web site is located at <http://atl.ndsu.edu> and DANA’s at <http://atl.ndsu.edu/archive> *New Electron Microscope Is Developed at IBM Lab* is the title of a copyrighted article by John Markoff published in the 8 August 2002 *New York Times*. Scientists at IBM and the Nion Corporation have developed an advanced

electron microscope optics system that makes possible the creation of the most precise images yet, with resolving power less than the radius of a single hydrogen atom. The technology, which employs a powerful desktop computer and an array of magnetic lenses to minimize distortions that are inherent in images made by today’s electron microscopes, will also permit researchers to peer deeply into materials and create three-dimensional images. The scientific advance, which the group will report in Thursday’s issue of the journal *Nature* [8 August 2002] will make possible a new generation of microscopes that can resolve subatomic images with an electron beam that is only three-billionths of an inch wide. Electron microscopes project a thin beam of electrons at an object and synthesize an image from its reflections. “This represents a big paradigm shift for microscopy,” said Dr. Philip Batson, the lead scientist working on the project at I.B.M.’s Thomas J. Watson Research Laboratory in Yorktown Heights, N.Y. “It will be an enabling technology that will have lots of applications.” One of the first areas in which the researchers hope to apply the technology is the analysis of modern semiconductor transistors. Modern transistors are thin sandwiches of conducting and insulating materials that in some cases include components that are no more than five atoms thick, Dr. Batson said today in a telephone interview. The tolerances of such materials are so fine that if a single atom falls out of place, the transistors can fail. The new technology makes it possible to create three-dimensional images up to 10 nanometers in depth — the equivalent of as many as 50 layers of atoms. The tool has many other immediate applications in areas like molecular electronics and advanced biological science, where it will be possible directly to create images of biological processes inside individual cells. A number of small and large companies are rushing to create a new generation of electronics based on individual molecules, compared to today’s microelectronic systems, which deposit layers of materials onto silicon wafers and then etch patterns into them. Dr. Batson said that I.B.M. researchers were eagerly waiting to use the advanced microscope to create images of carbon nanotubes, ultrafine molecules that may serve as the wiring for future computers. Nion is a small research company based in Kirkland, Washington that specializes in electron microscope optics — the process of controlling electron beams using arrays of magnets. Progress is happening quickly in the electron microscopy field. In April, scientists at Lucent Technologies’ Bell Labs reported in *Nature* the ability to focus on a single atom.



Book Reviews

Mark Hall, Associate Editor

If you are interested in being considered as a reviewer, please drop me a note by e-mail or postal mail. In your message, let me know your name and mailing address, topics you consider your speciality, and send a copy of your cv (doc or rtf format if done by e-mail).

Dyes in History and Archaeology 18: Papers presented at the 18th Meeting, Brussels, 1999. Kirby, Jo, editor. **Archetype Publications: London, 2002. x + 116 pp., 50 half tone, 4 pp. colour plates. Price: \$34.50 (softcover). ISBN: 1-873132-33-6**

Reviewed by Alyssa Becker, Department of Human Ecology, University of Alberta, Edmonton, Alberta T6G 2N1

The study of dyes is an extremely broad field, and the papers from the 18th Meeting of Dyes in History and Archaeology in 1999 held at the Institut Royal du Patrimoine Artistique/Koninklijk Instituut voor het Kunstpatrimonium is very broad in scope. The papers in this collection are based on new research and are peer reviewed. The blurb on the back cover suggests this collection is chiefly about indigo dyes, but only three of the thirteen papers deal specifically with indigo. If you are looking for a smorgasbord of dye related topics such as the identification of photo-chemically degraded dyes, how alum mordants could have been derived from plants in Western Europe, or Adolf von Baeyer's fascination with the indigo molecule, however, then this collection is for you. There is a lot of interesting information here, and depending on your specific research interests, it may also be quite useful.

Of interest to textile and dye analysts will be papers such as "NMR spectroscopy of leucoindigotins and formation of deuterated indigotins" by Gundula Voss, whose analytical approach holds promise for identifying indigo and Tyrian purple. "Non-destructive analysis of *ukiyo-e*, traditional Japanese woodblock prints, using a portable X-ray fluorescence spectrometer" by Yasuko Noda and Susumu Shimoyama, and "Photo-oxidation products of quercetin and morin as markers for the characterisation of natural flavonoid yellow dyes in ancient textiles" by Ester S.B. Ferreira, Anita Quye, Hamish McNab and Alison N. Hulme, offer up additional methods of dye identification. In the former, the authors use a portable X-ray fluorescence spectrometer to identify inorganic colourants in *ukiyo-e* prints, and to distinguish between pigments that are very similar in colour, such as *bengara* red and vermillion. The authors of the latter paper examine how chemical changes in flavonoid containing yellow dyes used in Western Europe can be used to identify light-damaged specimens of these dyes. "Traditional Maori Dyes," by Rangi Te Kanawa, Scott Thomsen, Gerald Smith, Ian Miller, Claude Andary and Dominique Cardon, will be of particular interest to conservators. The authors examine the ageing and degradation process of a natural iron/tannin complex derived from tree bark and mud applied to *Phormium tenax* fibres, then suggest how the degraded fibres might be consolidated.

Articles such as "Analysis of natural dyes from Romanian 19th- and 20th-century ethnographic textiles by DAD-HPLC" by Irina Petroviciu and Jan Wouters will appeal to the textile historian. The authors conclude that natural dyes were still being used in Romanian villages at the end of the 19th century and beginning of the 20th century. "Etymology and botany of some European lichen dyes" by Karen Diadick Casselman is a good reference for the various historical terms of lichen dyes. Those researching dye processes will want to take note of

"The right mud: studies in mud-tannic dyeing in West China and West Surrey" by Deryn O'Connor and Ann Richards, and "Botanical alternatives to alum" by G.W. Taylor, which outlines how an alum mordant was obtained through plant matter in areas of Europe where pure alum was not locally available.

Probably the most dramatic paper is Gilly Carr's "Woad, Tattooing, and the Archeology of Rebellion in Britain." Carr draws upon classical literature, and analyses the available technology to confirm how the ancient Britons, threatened by Roman authority, used woad to tattoo their bodies as an expression of identity.

Dyes in History and Archaeology 18: Papers presented at the 18th Meeting has the potential to inspire or inform the research of anyone working with historical textiles, dyes or pigments, and makes for interesting supplementary instructional material. However, its broad scope of specialized topics keeps it from being the sort of reference I'd continually use. At \$34.95 for the soft cover, I'd be inclined to get *Dyes in History and Archaeology 18: Papers presented at the 18th Meeting* through my local library.

Books Received

- Barba, L. (ed.). 2002. *Proceedings of the 32nd Archaeometry Symposium*. CD-ROM.
- Diehl, M. and LeBlanc, S. 2001. *Early Pithouse Villages of the Mimbres Valley and Beyond*. Cambridge, Mass.: Peabody Museum Press. ISBN: 0-87365-211-8.
- Jones, A. 2001. *Archaeological Theory and Scientific Practice*. Cambridge: Cambridge University Press. ISBN: 0-521-79393-9.
- Sheets, P. (ed.). 2002. *Before the Volcano Erupted: The Ancient Ceren Village in Central America*. Austin: University of Texas Press. ISBN: 0-292-77761-2.
- Sweeney, S. and Hodder, I. 2002. *The Body*. Cambridge: Cambridge University Press. ISBN: 0-521-78292-9.

Conferences

Early Metallurgy in Cyprus- The last 20 years 1982-2002, Nicosia, Cyprus, 21 September 2002

It has been twenty years since the publication of the groundbreaking conference, "Early Metallurgy in Cyprus - 4000-500 BC." The conference proceedings, edited by J.D. Muhly, R. Maddin and V. Karageorghis, have been a sourcebook for anyone working on the archaeometallurgy of the Eastern Mediterranean. Over the last twenty years, however, continuous fieldwork has brought to light new evidence which has radically altered many established views. This is why the Archaeological Research Unit of the Department of History and Archaeology of the University of Cyprus, decided to organize a sequel entitled, "Early Metallurgy in Cyprus -the last 20 years 1982-2002. Scholars, like R. Maddin, J. Muhly, H.G. Bachmann, B. Rothenberg, and F. Lo Schiavo, who participated in the original conference, will now be joined by colleagues like A. Hauptmann,

Y. Bassiakos, W. Fasnacht, S. Van Lokeren, G. Papasavvas and V. Kassianidou, who have been active in the field in Cyprus and the neighbouring regions in more recent years. During the workshop, new excavation and analytical data concerning the archaeometallurgy of the Eastern Mediterranean was scheduled to be presented. The meeting was organised within the framework of the wider project "Advanced Technologies for the Management and Promotion of Cultural Heritage" and was funded by the Protocol of Cooperation between Cyprus and Greece for 2000-2002.

Scheduled papers included: H.G. Bachmann, Bronze Age Metallurgy and Polymetallic Ores: A Challenge for Research; R. Maddin, Iron: Introduction and Dispersion; J. Muhly, How the 'Early Metallurgy in Cyprus - 4000-500 BC' came about (Did we know what we were doing?); V. Kassianidou, The Late Bronze Age Primary Smelting Workshop at Politiko-Phorades; S. Van Lokeren, Reconstructing Metallurgical Landscapes in Late Bronze Age Cyprus: chaînes opératoires vs analyses; W. Fasnacht, Almyras Furnace No. 8: the Only Complete Iron Age Copper Smelting Furnace in the Near East; A. Hauptmann, R. Maddin & M. Prange, Copper and Tin Ingots from the Shipwreck of Uluburun; G. Papasavvas, The Casting Technology of Bronze Stands; B. Rothenberg, Recent Excavations in the Chalcolithic Mine T at Timna; G. Bassiakos & P. Betancourt, Early Copper Production in Southern Aegean: New Data; F. Lo Schiavo, Archaeometallurgy in Sardinia, year 2002.

For more information please contact Dr. Vasiliki Kassianidou, Archaeological Research Unit, University of Cyprus, PO Box 20537, Nicosia, CY-1678 Cyprus; tel 357 22 674658 ext. 11; fax 357 22 674101; email v.kassianidou@ucy.ac.cy

Upcoming Conferences - 2003

Feb. 6-7. Associazione Italiana di Archeometria, Ravello. The theme is "Archeometria del costruito. L'edificio storico: materiali, strutture e rischio sismico." For details, visit their website: <http://aiar.mater.unimib.it>

Mar. 23-27. Ancient Biomolecules: New Perspectives in Archaeology and Palaeobiology. Sponsored by the Division of Geochemistry (GEOC) at the 225th American Chemical Society National Meeting, New Orleans, Louisiana. While it is now well-established that most classes of biogenic molecules are preserved under appropriate burial conditions, there is an emerging hierarchy of preservation that places inevitable constraints on the utility of different biomolecules across the range of geological time periods. A major goal of this field is the recovery of reliable molecular and isotopic signals that can be used in reconstructing the past. This symposium will highlight current trends and progress in the rapidly evolving field of ancient biomolecules. We are seeking contributions which integrate analytical (bio)chemistry, archaeology, and palaeontology. The major themes of the symposium will include: 1. New analytical chemical and stable isotope techniques for the study of preserved biomolecules; 2. Experimental and/or field investigations aimed at enhancing

our understanding of factors controlling the preservation of ancient biomolecules; 3. Laboratory experiments aimed at improving our understanding of the way in which molecular and stable isotopic signatures observed in fossil and sub-fossil materials are expressed in growing organisms; 4. New applications of ancient biomolecules to archaeology and palaeobiology. Extended discussion periods are planned to facilitate the exchange of ideas. For additional information contact the organizers: Richard P. Evershed, Organic Geochemistry Unit, Biogeochemistry Research Centre, School of Chemistry, University of Bristol, Cantock's Close, Bristol BS8 1TS UK; tel. 44 117 9287671; fax. 44 117 9251295; email r.p.evershed@bristol.ac.uk; Matthew Collins, Fossil Fuels and Environmental Geochemistry, University of Newcastle upon Tyne, Newcastle NE3 1UH, tel. 44 191 222 6855; fax. 44 191 222 5431; email m.collins@ncl.ac.uk

April 8-12. Enter the Past. The E-way into the four Dimensions of Cultural heritage. CAA 2003. Workshop 8-Archäologie & Computer. For more information, contact: Wolfgang Börner, Friedrich-Schmidt-Platz 5/1, 1082 Vienna, Austria; email bor@gku.magwien.gv.at; web: www.archaeologie-wien.at

April 16-19. Colloque Archéométrie 2003, Bordeaux, France. For more information, contact: Centre de Recherche en Physique Appliquée à l'Archéologie, Maison de l'Archéologie, Esplanade des Antilles, 33 607 Pessac Cedex, France; fax : (33 ou 0)5 57 12 45 50; email gmpca2003@montaigne.u-bordeaux.fr

May 4-8. 34th International Symposium on Archaeometry, Hefei, Anhui Province, P.R. China. China has the longest continuous culture in the world, and there are abundant relics distributed among the nation. Beyond all doubt, holding the Archaeometry Symposium will stimulate the development of archaeological science in China, that is very important to conserve the cultural heritage. The local organizing committee hopes to meet a large number of colleagues in Hefei. The Symposium will be organized by University of science and technology of China (USTC) at Hefei. The Symposium has seven sessions (no parallel sessions), including: Field archaeology (geoarchaeology and prospection); Dating (organic and inorganic materials); Biomaterials (DNA, dietary and organic residues studies); Technology and provenance (stone, plaster and pigments); Technology and provenance (ceramics and glass); Technology and provenance (metals); Chinese archaeometry. For more information, please contact: Yaowu Hu, Department of Scientific History and Archaeometry, University of Science and Technology of China, P.R. China, tel +86 551 360 3914; fax +86 551 360 3576; email: ywhu@ustc.edu.cn; web: www.archaeometry.ustc.edu.cn

May 12-15. Second International Conference on Soils and Archaeology, Pisa, Italy. How did environment affect the choices of the ancient human groups, and how did ancient Man domesticate the environment around him? The study of soils as markers of environmental change, and evidence of human influence on the landscape is a basic aspect of the study of the ancient cultures. Soils and archaeological

sediments are unwritten documents of our history. This meeting wants to show clearly the holistic relevance of this work, that soil scientists and archaeologists must carry on in close collaboration. The aim is to improve the interaction and foment discussions between Geoarchaeologists and Archaeologists/Environmental Archaeologists on these topics. After the success of the First Conference, held in Szazhalombatta in May 2001, and organised by Gyorgy Fuleky of the Szent Istvan University of Godollo, we are happy to invite our colleagues in Pisa. Conference Topics: All topics dealing with soils and archaeology are welcome. However, the conference will primarily focus on the following themes: 1. Records of anthropogenic impacts on soils (cultivation; clearance, erosion and colluviation; alluvial and lacustrine environments; pastoral activity; low intensity occupation of the landscape/caves; soil modifications by agricultural activities until pre-modern times; pedological evidence of ancient soil pollution; soil modifications by animals related to human activity); 2. Anthropogenic sediments as archives of intensive human activity (soils and archaeological sediments cannot be studied separately) (domestic, industrial, stabling and ritual use of space; constructions; settlement morphology (small sites, tells/urban; caves); anthropogenic activities. The conference is preceded by a 2-day workshop of the Archaeological Soil Micromorphology Working Group. Thin sections and microscopic techniques employed in some of the analyses presented at the conference, can be viewed here. This workshop is open to all, with the only limitation that the microscopy room of the Department of Earth Sciences is equipped with 20 microscopes. For more information, contact: Giovanni Boschian, Dipartimento di Scienze Archeologiche, Università di Pisa, 53, via Santa Maria, I-56126 Pisa, Italy; fax +39 050 911665; +39 050 847316; web: <http://soilarch.humnet.unipi.it>

May 28-31. 4th Symposium on Archaeometry of the Hellenic Society of Archaeometry, Athens, Greece. The Symposium aims at providing a forum for the discussion and presentation of recent research and trends of archaeometry pertaining to the prehistory and classical antiquity as well as Byzantine and recent times. The main topics to be covered in the Symposium will be: Science-based dating, Technology and Provenance of archaeological materials (ceramics, metals, glass, stone, mortars, pigments, etc.), Remote Sensing, Geoarchaeology, Biomaterials, Organic Residues, Research in Conservation Science, Mathematical Methods. The Symposium schedule will also include a specific theme session, which focuses on the Aegean and the presentation of reviews and developments of the archaeometry studies over the past 20 years. For more information please visit the Symposium website: www.archaeometry.gr/symposium2003, or contact: Yorgos Facorellis, Laboratory of Archaeometry, Institute of Materials Science, N.C.S.R. "Demokritos", 153 10 Aghia Paraskevi, Athens, Greece; tel ++30010-6503958; fax ++30010-6519430; email yfacorellis@ims.demokritos.gr

June 21-26. Imperial Legacies: The health and environmental impacts of ancient industrial activities, from ancient times to the present day. A theme proposed for World Archaeological

Congress 5, Washington, DC. The exploitation of mineral resources and the conversion of ores into metals and finished goods in ancient times was on a sufficient scale that the Greenland ice cores recorded the pollution emitted by ancient industrial activity. This session aims to bring together researchers engaged in the study of ancient industrial activity worldwide. The scope of the session will encompass African, South American, and Near Eastern, Asian and European activities and will range from ancient times to the present day. This topic is important, as it is increasingly apparent that the legacy of ancient industrial activity remains in many parts of the world in the form of seriously polluted landscapes. These are not always apparent, as local plants and animals may have adapted to the associated environmental stress, but the health impact on the modern world may nonetheless be profound and no less severe than modern industrial processes. Ancient industrial activity may continue to have a severe impact upon the modern environment especially to the people who live on or near these sites and who may utilize the sediments and plants for agricultural purposes. Specific themes to be addressed are: Ancient World (Identified industrial processes and pollutant emission: Ore processing, smelting efficiency, flue gas release, water courses and effluents; Management and awareness of pollution issues in the ancient world: archaeology and architecture, site construction and awareness of pollution issues in waste management; Health impacts of industrial activity in the ancient world: skeletal chemistry, skeletal pathology, pollution burdens and physiological responses; Remote records of industrial activity: peatbogs, lake sediments etc.; Environmental impacts of ancient industrial activities: pollen, plant macro fossil, sediment chemistry, bone chemistry; and Modern World Legacies (Remnant pollution burden in modern topsoil: Geochemistry, mapping etc.; Bioavailability of ancient pollution: conversion of cations from unavailable to available forms; Adaptation of plants and animals to heavily polluted environments: partitioning, excretion, tolerance etc.; Contemporary agricultural impacts and management responses: Productivity, yield crop/livestock size; Pollution burden in the biosphere: plant, animals and their response, what thrives, what does not; Human and animal health risks: Exposure of modern populations to toxic cations, how great is the burden, how to assess the risk, how to conduct research in a sensitive manner; Managing and assessing ancient pollution: Once you have found it, what to do about it; effective management, successes and failures). We expect a range of participants from all areas of the world where ancient cultures engaged in industrial activity. Perspectives will range from those of archaeologists, through geographers, geochemists, palynologists, medical practitioners, archaeobotanists, palaeopathologists botanists. For more information, please visit the website: <http://www.flinders.edu.au/wac5/indexhomepage.html> or contact the convenors: John Grattan, The Institute of Geography and Earth Sciences, The University of Wales, Aberystwyth, UK, email jpg@aber.ac.uk; Brian Pyatt, The Dept. of Life Sciences, The Nottingham Trent University,

Nottingham, UK, email Brian.Pyatt@ntu.ac.uk.; Robert G. Schmidt, Scientist Emeritus, U.S. Geological Survey, email rgschmidt@erols.com; Ziad al Saad, The Institute of Archaeology and anthropology, The University of Yarmouk, Irbid, Jordan, email zalsaad@yu.edu.jo

July 23-30. XVI International Association for Quaternary Research (INQUA) Congress, Reno, Nevada. The INQUA Congress is the premier gathering of Quaternary scientists from all over the world, and is held only every four years. Symposia, poster sessions, plenary lectures and a public forum make up the scientific program. Posters will be the main mode for conveying scientific research and there will be over 40 volunteered poster sessions. Thirty timely and interesting symposia featuring both invited and volunteered oral presentations as well as linked poster sessions are scheduled. Seven plenary sessions featuring provocative and stimulating invited presentations by premier quaternary scientists have been arranged. The full program is available online at: <http://www.inqua2003.dri.edu>. A wide variety of pre- and post- Congress field trips, mostly in the western United States are scheduled for Quaternary scientists. In addition, several one-day, mid-Congress excursions to places of interest in the Reno-Lake Tahoe area are offered. Detailed descriptions of the field trips are online at: <http://www.inqua2003.dri.edu>. A symposium on "New Developments in Quaternary Numeric Dating Methods" has been organized by Glenn W. Berger, Rainer Grun and Marek Zreda, with the following topic: Chronometric dating of Quaternary terrestrial deposits is essential for validation of indirectly determined, relative chronologies. Dating of Quaternary deposits requires chronometers with unique capabilities, not only because of the "short" (geologically) time scale, also because most of the archival records of the Quaternary occur in unheated, soft sediments, often containing large quantities of reworked material. The demands of varied time scales and deposits confound any single Quaternary geochronometer for all useful deposits. Quaternary scientists now have access to a larger variety of geochronometers than ever before. What are the newest dating techniques, approaches, calibrations, applications, and understandings thereof? We invite abstracts across the spectrum of earth science applications that use, integrate or establish the potential for accurate dating, of any of the following techniques: U-series, $^{40}\text{Ar}/^{39}\text{Ar}$, ^{14}C , in-situ cosmogenic radionuclides (^{14}C , ^{10}Be , ^{26}Al , ^{36}Cl , ^3He , ^{21}Ne), fission-track, luminescence, electron-spin-resonance, and (U-Th)/He thermochronology. The organizers invite active researchers to submit abstracts of proposed presentations directly related to the Symposium on New Developments in Quaternary Numeric Dating Methods. In addition to invited oral keynote presentations, there will be a limited number of volunteered oral slots (15+5 minutes duration each). The remainder of presentations will be included in the poster component of this Symposium. Interested colleagues may contact: Glenn Berger, Earth and Ecosystem Sciences, Desert Research Institute, 2215 Raggio Parkway, Reno, NV 89512-1095, USA; tel (775) 673-7354; -7357; fax (775) 673-7397; email gwberger@dri.edu

Sept. 1-5. 18th International Radiocarbon Conference, Wellington, New Zealand. Registration and Abstract Submission will only be made via the Conference website: www.14Conference2003.co.nz; if you have any problem accessing this site, please send them an email message at 14Conf-info@gns.cri.nz

Sept. 3-6. International Conference on the Application of Raman Spectroscopy in Art and Archaeology, Ghent, Belgium. The conference website includes information on themes and sessions, the venue and the committee members: <http://allserv.rug.ac.be/~pvdenabe>; you may also contact: Peter Vandenabeele, Ghent University, Laboratory of Analytical Chemistry, Proeftuinstraat 86, B-9000 Ghent, Belgium; tel +32 9 264 66 23; fax. +32 9 264 66 99; email: peter.vandenabeele@rug.ac.be; web: <http://allserv.rug.ac.be/~lmoens/Raman/Welcomeraman.html>

Sept. 10-14. 5th International Conference on Archaeological Prospection, Polish Academy of Arts and Sciences, Cracow, Poland. Call for papers and posters on the following topics: Integrated prospection approaches; Processing and visualisation of prospection data; Technical aspects; Interpretation and presentation of prospection results; GIS and prospection; Archaeological feedback; and the topic of the Conference's special session, Archaeological prospection in countries of the Near East. For further information, please contact: Archaeological Prospection 2003, c/o Tomasz Herbich, Institute of Archaeology and Ethnology, Polish Academy of Sciences, Al. Solidarnosci 105, 00-140 Warsaw, Poland; email ap@iaepan.edu.pl; web: <http://www.iaepan.edu.pl/ap2003.html>

Sept. 24-26. Archaeometallurgy 2003. Archaeometallurgy in Europe, Milan, Italy. For further information, visit the website: <http://www.aimnet.it/archaeo.htm>. Gilberto Artioli (University of Milano) and Andreas Hauptmann (Bergbau Museum, Bochum) are organizing a particular session on "Slag Investigations in Archaeometallurgy: What Can Slag Tell Us about Ancient Metallurgical Operations?" for which they particularly encourage contributions.

Sept. 26. 6th International Mining History Conference, Japan. This is the first International Mining History Congress to be held in Asia. The Congress will include interests ranging from social and economic historical aspects of mining, mining technology and engineering, to business history, industrial relations, safety, gender and ethnic issues, regional history, preservation and heritage concerns and other relevant areas of mining history. For more information, contact: Secretariat for the 6th International Mining History Congress, Local Organizing Committee 4-1, Izumimachi, Akabira, Hokkaido 079-1192; tel +81 125 32 2211; +81 125 32 5033; email: info@imhc2003.com; web: <http://www.imhc2003.com>

Oct. 27-31. The 7th European Meeting of Ancient Ceramics (EMAC '03), Lisbon, Portugal. Organized by Cultural Heritage and Sciences Group, Instituto Tecnológico e Nuclear Estrada Nacional 10, 2686-953 Sacavém, Portugal. For information, contact: M.I. Prudêncio, M. I. Dias, or J. C. Waerenborgh; email: emac03lisbon@itn.pt; fax + 351 21 9941455; tel + 351 21 994 6222 (6223, 6202, 6220); web: <http://www.itn.pt/EMAC03>

2004

Aug. 20-28. Geoarchaeometry: Geomaterials in Cultural Heritage, a symposium at the 32nd International Geological Congress, Italia 2004, Florence, Italy. This session will include oral and poster presentations as well as visits to Florentine museums and monuments that are related with the topic. If you are interested in participating and if you want to present a paper, please download the circular at: <http://www.32igc.org>, or contact one of the organizers: Marino Maggetti, Department of Geosciences, Mineralogy and Petrography, University of Fribourg, CH-1700 Freiburg, Switzerland, tel + 41 026 / 300 89 30; fax + 41 026 / 300 97 65; email: marino.maggetti@unifr.ch; web: www.unifr.ch/geoscience/mineralogie; Bruno Messiga, Dipartimento di Scienze della Terra, Via Ferrata, 1, I-27100 Pavia, Italy; tel 39 382 505892; fax 39 382 505890; email messiga@crystal.unipv.it; web: <http://manhattan.unipv.it>

By-Laws of the Society for Archaeological Sciences

Adopted June 1977, Revised May 15, 1984

Article I - Name

This organization shall be known as the Society for Archaeological Sciences.

Article II - Objective

1. The general objective of the Society for Archaeological Sciences shall be to provide a professional society for those involved in physical and natural science applications in archaeology and paleoanthropology.

2. The specific and primary purposes are (a) to establish a forum from which current issues and advancements in archaeological science and archaeometry may be presented and discussed; (b) to promote awareness and provide informational programs that will aid the archaeological community in becoming more aware of problems and potentials of the application of techniques from the physical and natural sciences in archaeology; (c) to maintain an active program for the promotion and implementation of interdisciplinary research designs in archaeology; (d) to encourage research and the preparation of papers and reports on archaeological science topics; (e) to endeavor to maintain high technical standards in related archaeological studies; (f) to establish a code of conduct directed towards these ends; (g) to cooperate with other archaeological associations and societies; and (h) to advance relations with governmental agencies and the public in general; all without pecuniary profit to any director, officer, or member.

Article III - Powers

1. The Society shall have the power to receive, administer, and disburse dues, assessments, and other grants to further its ends; to acquire, hold absolutely or in trust for the purposes of the Society, and to convey property, real and personal; to publish newsletters, reports, bulletins, journals, and monographs; to affiliate with other organizations in the pursuit of common aims, and to appoint delegates or representatives to such organizations; to establish branches,

sections, or divisions, on a regional or functional basis; and to engage in such other activities as are in keeping with the objectives of the Society.

2. No part of the net receipts of the Society shall insure to the benefit of or be distributable to its members, officers, committee members, or other private persons, except that the Society shall be authorized and empowered to pay reasonable compensation for services rendered and to make payments and distributions in furtherance of the purposes of the Society as set forth in the Articles of Incorporation and these By-laws.

3. No substantial part of the activities of the Society shall be the carrying on of propaganda or otherwise attempting to influence legislation, and the Society shall not participate in, or intervene in (including the publishing or distribution of statements) any political campaign on behalf of the candidate for public office. Notwithstanding any other provision of the Articles of Incorporation and these By-Laws, the Society shall not carry on any other activities which are proscribed for organizations exempt from Federal income tax under ¶ 501 (c) (3) of the International Revenue Code of 1954 (or the corresponding provision of any future Internal Revenue Code) or which are proscribed for organizations to which contributions are deductible under ¶ 170(c) (2) of the Internal Revenue Code (or the corresponding section of any future Internal Revenue Code).

Article IV - Membership

1. Membership in the Society is open to any person in sympathy with the objectives of the Society, as set forth in Article 11, without regard to sex, race, religion, or nationality.

2. The Society shall have several classes of membership as determined by a vote of the membership. Each member shall have one vote in the transaction of the business of the Society and shall be eligible for any elective or appointive office in the Society, subject only to restrictions defined elsewhere in the Articles of Incorporation and these By-Laws. Each active member of the Society shall receive all of the Society's publications issued during the year covered by the members' dues.

3. The Executive Board shall determine, from time to time, the amount, time, and manner of payment of annual dues payable to the Society by its members.

4. Any library, museum, university, school, college, or other institution may subscribe to the publications of the Society without privilege of membership. The annual cost of such subscription shall be fixed by the Executive Board.

5. The Executive Board may, by a three-quarters vote, remove from the membership rolls any member whose acts are contrary to the ideals, objectives, and accepted standards of the Society as set forth in Article II, and the code of conduct established by vote of the membership of the Society. The action of the Executive Board may be subject to an appeal to the Society at its General Meeting.

6. The Secretary-Treasurer, shall be empowered to discontinue the membership of any person for non-payment of dues for one full year.

7. No member shall be personally liable to any creditor of the Society for any indebtedness of liability, and any and all creditors shall look to the Society assets for payment.

Article V - Organization

1. The Officers of the Society shall consist of a President, a Vice President, an immediate Past President, a Secretary-Treasurer, and an Assistant Secretary-Treasurer. The Editor of the SAS Newsletter and the General Secretary and Associate General Secretary of the SAS shall be appointed by the Executive Board and both shall be ex-officio members of the Executive Board.

2. The Consulars of the Society shall consist of up to five members of the Society appointed by the Executive Board to represent disciplinary and subdisciplinary specialties in archaeometry not represented on the Executive Board by those serving as officers in any particular year. The Consulars of the Society shall serve for one year and may be reappointed without limitations of length of service.

3. The Executive Board of the Society shall consist of the Executive Officers and Consulars of the SAS, the Editor of the SAS Newsletter, and the General Secretary and Associate General Secretary of the SAS.

4. The Vice-President shall be elected for a one-year term, at the conclusion of which he/she shall succeed to the Office of President to serve a one-year term. The immediate Past President shall remain as a member of the Executive Board for one year following his/ her term in office as President. The Assistant Secretary-Treasurer shall be elected for a one-year term at the conclusion of which he/she shall succeed to the office of Secretary-Treasurer to serve for a term of one year. The Editor of the SAS Newsletter, the General Secretary and the Associate General Secretary of the SAS shall serve until replaced by action of the Executive Board.

5. No restriction is placed on officers seeking re_election to the same or different office within the Society. Nor is any restriction placed on officers being reappointed to the same or a different office within the Society.

6. In the event of the absence, death, resignation, or incapacity of the President, or Secretary-Treasurer, as determined by a majority of the vote of the Executive Board, the duties of the respective office shall be assumed by the appropriate officer-elect (Vice-President and/ or Assistant Secretary-Treasurer) if such position of officer-elect is filled at the time, or by a member of the Executive Board appointed to assume those duties by the remaining members of the Executive Board. The tenure of an individual so appointed shall terminate following the election of his/her successor.

Article VI - Duties of Officers

1. President.

(a) The President shall preside over all meetings of the Executive Board and be the presiding officer of the Society. The President shall have the usual appointive power and shall exercise all the duties and responsibilities commonly associated with this office, except as provided in the Articles of Incorporation and these By-Laws.

(b) The President may appoint representatives of the Society to other societies, agencies, or councils or select such representatives from slates submitted by other societies, agencies, or councils.

(c) The President shall recommend to the Executive Board the Editor of the SAS Newsletter.

(d) Acting on the advice and consent of the Executive Board, the President shall appoint all necessary committees and define their duties.

(e) The President may designate members in various regions to represent the interests of the Society in that region.

(f) The President and either the Secretary-Treasurer or individual designated by the Executive Board shall sign all written contracts authorized by the Executive Board, except that basic contracts for printing and other matters necessary to publications shall be signed by the President and the Editor.

(g) The actions of the President in exercising the duties and responsibilities of the office shall be subject to review and approval of the Executive Board.

2. The Vice-President shall serve as a voting member of the Executive Board during the year prior to the assumption of the duties of President and under the direction of the Executive Board shall be responsible for planning the General Meeting of the Society.

3. Immediate Past-President.

(a) The immediate Past President shall serve as a voting member of the Executive Board for one year after his/her term in office as President has ended. The principal role of the Past President is to provide continuity and experienced guidance.

4. Secretary-Treasurer.

(a) The Secretary-Treasurer, subject to the directives of the Executive Board, shall be responsible for maintaining contact with the central business office of the Society, have charge of administrative matters under the direction of the President, be responsible for the administration of the finances of the Society subject to provisions in the Articles of Incorporation and these By-Laws.

5. The Assistant Secretary-Treasurer shall assist the Secretary-Treasurer in the discharge of his/her responsibilities as the Secretary-Treasurer may direct and shall perform such other duties as may be assigned to him/her by the President or the Executive Board.

6. The Editor shall have full charge of the Society Newsletter under the direction of the Executive Board and subject to any provisions of the Articles of Incorporation and these By-Laws.

7. Any duty or responsibility delegated to any officer or to the Executive Board in these by-laws may be redelegated to the General Secretary of the SAS by a majority vote of the Executive Board. Any redelegation may be rescinded by a majority vote of the Executive Board at any time.

Article VII - Executive Board

1. Subject to the general directives and limitations imposed by the membership at the General Meetings, any Special Meeting, or by mail ballot, the Executive Board shall have authority to execute on behalf of the Society all powers and functions of the Society, as defined in the Articles of Incorporation and these By-Laws.

2. The Executive Board may hold Special Meetings at the call of the President.

3. A Quorum of the Executive Board shall consist of a majority of the officers of the Society.

4. Questions shall be decided by the Executive Board by a majority of the votes cast at any meeting or by mail ballot. In the case of a tie vote, the decision of the President shall be final. If a member of the Executive Board is unable to attend a meeting, the member may, by written proxy, appoint any active member of the Society to serve for that meeting. But no person by virtue of holding proxies shall have the right to cast more than one vote.

5. The President may on his/her own initiative, or shall at the written request of any member of the Executive Board, ask the Board to vote on specific questions by mail ballot. Ballots shall be mailed by the Secretary-Treasurer who shall specify on the ballots the date on or before which they are to be placed in the mail for return to the Secretary-Treasurer. This date shall be not less than fifteen (15) days from the date they were placed in the mail nor more than thirty (30) days from the date they were placed in the mail by the Secretary.

6. Reports of officers, representatives, delegates, committees, and agents shall be approved by the Executive Board. At the discretion of the Executive Board, these reports may be presented in full or in brief at the General Meeting.

7. The Executive Board shall act upon the budget provided by the Treasurer. A budget shall be submitted by the Executive Board to the General Meeting for approval.

8. Removal From Office. Any member of the executive Board may be removed from office by a two-thirds (2/3) vote of the Executive Board. Such vacated office shall be filled immediately in accordance with Article V, §6.

Article VIII - Elections

1. Before December 1 of each year, the Executive Board shall elect a Nominating Committee of three, composed of the Vice-President of the Society as chair and two (2) other members elected from the membership at large.

2. The names of the members of the Nominating Committee and their business addresses for any given fiscal year shall appear prominently in the earliest possible number of the Society Newsletter or separately mailed notice. There shall also appear a listing of the officers to be vacated for which nominations will be made for the ensuing year with a notice that members may suggest the names of candidates for such offices to the Nominating Committee on or before March 1. For the office of Assistant Secretary-Treasurer, the Nominating Committee shall nominate at least one active member. For the office of Vice-President, the Nominating Committee shall nominate at least two and no more than three active members as candidates.

3. Any active member receiving a minimum of ten (10) nominations from the membership, communicated to the members of the Nominating Committee by March 1, shall be placed on the list of nominees for that office along with those nominees suggested by the Nominating Committee, unless such person has indicated, in writing, an unwillingness to serve, as provided in Article VII, ¶ 4.

4. All prospective nominees must indicate in writing to the Nominating Committee their willingness to serve as an officer of the Society, subject to the provisions of these By-Laws.

5. The list of nominees and a ballot for their election shall be mailed to all active members of the Society in accordance with the provisions of Article VII, ¶ 6 of these By-Laws.

6. Each active member shall be entitled to vote for one candidate for each office. Voting shall be by mail ballot. No identification of the voter shall appear on the ballot. Ballots shall be mailed to all active members of the Society. To be counted as votes, ballots must be returned to the Secretary-Treasurer postmarked on or before a date specified by the Secretary-Treasurer. The candidate for an office who receives the highest number of votes shall be declared elected to that office. In the event of a tie vote, the Secretary-Treasurer shall see that a runoff election is held.

7. The Secretary-Treasurer shall appoint, without review by the Executive Board, and whenever necessary, two tellers who shall act with the Secretary-Treasurer as an Elections Committee, which shall administer all elections.

Article IX - Meetings

1. The Society shall hold General Meetings at times and places designated by the Executive Board. The attending members shall constitute a quorum. At this meeting, the business of the Society shall be transacted, papers and other matters of scientific interest presented, and symposia and discussions held.

2. Due notice of the place and time of the ensuing General Meetings shall be published in the Newsletter of the Society and mailed to all active members at least six (6) months in advance of the date of the General Meeting.

3. Special Meetings of the Society shall be called by the President at any time the Executive Board so directs. Any matter of business may be decided at a Special meeting, provided notice of such business was specified in the call. Special Meetings may not be called with less than sixty (60) days notice to all active members of the Society and all members of the Executive Board.

4. The Regular Meeting of the Executive Board shall be held shortly before or during the General Meeting of the Society. The Secretary-Treasurer shall be responsible for notifying all members of the Executive Board of the exact time and place of the Regular Meeting

at least ten (10) days prior to its commencement.

5. Special Meetings of the Executive Board may be held at the call of the President and shall be held upon written request of at least three (3) members of the Executive Board. Special meetings may not be called with less than fifteen (15) days notice to all members of the Board.

6. All matters of the business of the Society may be decided by means of a referendum vote by mail ballot under conditions specified in these By-Laws.

Article X - Finances

1. The fiscal year of the Society shall be set by the Executive Board so long as not inconsistent with the laws of the State of California.

2. The income from annual dues and from investments and other sources shall constitute the working fund of the Society, available for operating, publications, and other current expenses consistent with the purposes of the Society as the Executive Board may direct.

3. No financial obligation in excess of the funds available in the treasury shall be assumed by the Executive Board or by any officer on behalf of the Society except when approved by a two-thirds (2/3) vote of the membership of the Society present at a regular General Meeting or at a Special Meeting, provided that for the purpose of this section, estimated receipts from annual dues and other accounts receivable for the current year may be considered as available funds.

Article XI - Disposal of Assets

1. Upon the dissolution of the Society for Archaeological Sciences, whether voluntary or involuntary, after paying all of the liabilities of the Society, the Society shall dispose of its assets exclusively for the scientific and educational purposes set forth in the Articles of Incorporation and these By-Laws by donating them to an institution or organization exempt from taxation under ¶ 501(c) (3) of the Internal Revenue Code of 1954 (or the corresponding provision of such future Internal Revenue law as may be in effect).

Article XII - Amendments

1. The Articles of Incorporation may be amended by a two-thirds (2/3) vote of the members present at a business meeting of the General Meeting or at a Special Meeting called in accordance with Article IX, ¶ 3. The Articles of Incorporation may also be amended by mail ballot provided that a proposed amendment is approved by two-thirds (2/3) of the votes cast.

2. These By-Laws may be amended by a majority vote at a General or Special Meeting of the Society or by mail ballot.

3. Amendments may be proposed by the Executive Board or by any ten (10) members of the Society. The proposed amendments shall be mailed to the members of the Society by the Secretary at least thirty (30) days before a General Meeting or sixty (60) days before a Special Meeting. In the case of a mail ballot upon an amendment, members shall address ballots to the Secretary and place them in the mail and postmarked not more than thirty (30) days from the date they were mailed out and postmarked by the Secretary. An amendment shall go into effect immediately upon approval unless otherwise specially provided.

4. The provisions of the Articles of Incorporation shall be effective immediately upon adoption and shall supersede and nullify all previous constitutional enactments in conflict with them and all amendments and provisions not mentioned herein.

5. The provisions of these By-Laws, as amended, shall be effective immediately upon their adoption and shall supersede and nullify all previous enactments in conflict with them.

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SAS Bulletin

Society for Archaeological Sciences

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