



Newsletter

Volume 10

March 1997

Number 1

Contents

ASMOSIA Officers 1995 - 98	2
The President's Report	3
Co-Editor's Report	3
The Forum	3 - 4
New Publications	5 - 6
Communications	6 - 8
Calendar	8 - 9
New Members	10

Published by the Association for the Study of Marble and Other Stone in Antiquity.
Two issues annually in March and October. All submissions should be sent to either
of the co-editors no later than the 15th of the month prior to publication.

ASMOSIA Officers 1995 - 98

President:

Norman Herz
Department of Geology
University of Georgia
Athens, GA 30602-2501, USA
fax: 1 706 542 2425
e-mail: normherz@uga.cc.uga.edu

Executive Council

Susan Kane
Department of Art
Oberlin College
Oberlin, OH 44704-1193, USA
fax: 1 216 775 8969
e-mail: fkane@oberlin.edu

Lorenzo Lazzarini
Laboratorio di Analisi dei Materiali Antichi
Dipartimento di Storia dell'Architettura (I.U.A.V.)
S. Polo 2554
I-30125 Venezia, Italia
fax: 39 41 715449
e-mail: lorenzo@brezza.iuav.unive.it

Yannis Maniatis
Research Laboratory for Archaeometry
NRCPS "Demokritos"
153 10 Aghia Paraskevi, Attica, Greece
fax: 30 1 6519 430

D. P. S. Peacock
Department of Archaeology
University of Southampton
SO17 1BJ Southampton, UK
e-mail: dpp@soton.ac.uk

Max Schvoerer
Université de Bordeaux III - CNRS
Maison de l'Archéologie
Applied Physics Lab., CRIAA
F-33405 Talence Cedex, France
fax: 33 56 845157

Newsletter Editors

Archaeometry - Norman Herz
Archaeology & Art History - Susan Kane

President's Report

"Forum", a new section of the Newsletter has been added, meant to stimulate discussion on subjects near and dear to the hearts of our members. Hopefully this first contribution will inspire you to send in your own ideas on any important topic, such as the ongoing debate on the roles that should be played by geoarchaeology - archaeology - and archaeometry. This first contribution is taken largely from the introduction to the book "Geological Methods for Archaeology" by Ervan G. Garrison and myself due to be published by Oxford University Press this March.

Co-Editor's Report

This is the first of our 1997 newsletters, replete with a new mast-head design and a new feature - "The Forum" - courtesy of our indefatigable President. Please remember that our newsletter is now on a twice a year basis. The next issue will be sent out in October. Thank you for sending us notice of your latest publications and events. Keep the news coming! Remember that this publication is only as good as the material we can beg, borrow, and steal to include.

A 1997 dues notice will also be coming out shortly. Another thank you to those who have already sent their money in to us. The rest of you should take notice. Keep the cash coming in, please. Mailing costs have risen, so it is important to keep the association treasury solvent. Going to two newsletters a year has prevented us from having to raise dues, but everyone's support is always needed. Happy Spring!

The Forum

Many years ago at lunch with a group of distinguished classical archaeologists, an animated discussion started on the value of different strategies for archaeology. A few strongly argued that the best approach to any archaeological problem was intuition, or as some art historians expressed it, a 'gut feeling'. When the British archaeologist Colin Renfrew and the geologist J. Springer Peacey suggested that scientific tests could be used to tell the provenance of Greek Aegean marble(1), a dean of British archaeologists, Bernard Ashmole pooh-pooed the entire effort. He stated in 1970 that "the chances of any scientific method, present or future, being able to determine with certainty (his italics) the source of any given specimen is nil. Meanwhile... we shall have to rely on a method which is far more than eighty years old, and one which was employed by sculptors, quarry-masters, and marble-merchants for centuries before ... namely that of using the naked eye and common sense"(2).

At that lunch, when I mentioned different kinds of analysis that could be carried out to tell the provenance as well as the approximate time of manufacture of artifacts, one enraged archaeologist let loose - "You scientist fellows are taking all the fun out of archaeology!".

Today, few archaeologists would argue against using scientific methodologies to help solve their problems. Still, voices are raised now and again that the pendulum has swung the other way and that too much science may not be a good idea. Spier, an art historian, argues that "the proliferation of scientific tests has brought a vast number of analyses of all types of materials - metals, terracotta, organic material, and so on - and the conclusions from these examinations can be highly significant. Many technical and scientific studies,

however, are not conclusive, especially in determining authenticity, and often appear to be invoked by archaeologists as a desperate appeal to the unattainable, 'objective', result rather than as a proper study"(3).

Static also comes from some scientists. The Geological Society of America sponsored a prestigious Penrose Conference in 1982 on Archaeological Geology. The Conference, the first on the subject, was convened by two geologists working in the Mediterranean on problems of sourcing archaeological materials: Charles Vitaliano on tephra and myself on marble(4). Since we were working with archaeologists trying to find solutions for important archaeological problems, we called ourselves "archaeological geologists". Similarly, chemists working on geological problems call themselves "geochemists", physicists "geophysicists", etc. ad nauseum. However, one of the attendees complained, admittedly good-naturedly, that neither organizer was "a real geoarchaeologist". We assumed by that he meant someone cast strictly in the mold provided by Michael Waters' recent book on geoarchaeology, that is with interests only in geomorphology or sedimentology (5).

Personally, I have blissfully ignored all debate concerning the correct level of science to use in archaeology, or the question of what is archaeological geology, and have gone ahead teaching a course at the University of Georgia since 1986 with the title "Archaeological Geology", and presenting an abbreviated set of lectures on the same theme at the American School of Classical Studies in Athens in 1995 and 1996. Hopefully the students in the course represent the wave of the future, for they are truly interested in scientific applications to archaeology. Unfortunately, world-wide students in anthropology and archaeology are forced to pursue a B.A. degree with

curriculum requirements heavy in humanities courses, but often completely lacking in any kind of science. Many students feel this lack greater than their mentors. There is a great need to enlighten, to proselytize, and to make sure that practicing archaeologists know that science, used properly, can be of great help and not an obstacle to their research. Geologists must also accept the fact that their methods are applicable to important archaeological problems, problems as interesting and as important as any in their own "pure" geological fields.

Hopefully ASMOSIA can lead the way in showing archaeologists the many ways that science can help solve their problems. After all, much of archaeology is only the geology of that small part of the earth's surface that has been occupied by humans. We also hope that whatever snobbism has been associated by some geologists with the various definitions of geoarchaeologist, archaeogeologist, and archaeometrist, that all will recognize that geology applied to archaeology can be a useful and rewarding field for cooperative research.

Notes:

1. C. Renfrew and J. S. Peacey, 1968, Aegean Marble: A Petrological Study, Annual British School in Athens 63, 45-66.
2. B. Ashmole, 1970, Aegean Marble: Science and Common Sense, Annual British School in Athens 65: 1-2.
3. J. Spier, 1990, Blinded with science: the abuse of science in the detection of false antiquities. The Burlington Magazine 132: 623-631.
4. N. Herz and C. J. Vitaliano, 1983, Archaeological geology in the eastern Mediterranean, Geology 11: 49-52.
5. M. R. Waters, 1992, Principles of Geoarchaeology: A North American Perspective (Tucson: University of Arizona Press).

New Publications

Books

Yannis Bassiakos, ed., Programme—Abstracts, 3rd Symposium on Archaeometry of the Greek Society for Archaeometry. Available from Eleni Aloupi, Secretary of GSA, 41 M. Moussourou Str., 116 36 Athens (tel. 301-7523-029; fax. 301-7523-030; e-mail. thetis@netor.gr).

This meeting was held in Athens on 06-10 November 1996. There are 92 pages of abstracts in Greek and English of papers and posters. Sessions were held on Dating of Organic and Inorganic Materials, Paleoenvironment and Geoarchaeology, Geophysical Prospecting, Characterization—Technology and Provenance, Organic Residues, and Ancient Metals.

Jean-Claude Bessac, with the collaboration of M.-R. Aucher, A. Blanc, Ph. Blanc, J. Chevalier, R. Bonnaud, J. Desse, J.-L. Fiches, P. Rocheteau, L. Schneider, and F. Souq, 1996, *La Pierre en Gaule Narbonnaise et les Carrières du Bois des Lens (Nîmes): Histoire, Archéologie, Ethnographie et Techniques*. Journal of Roman Archaeology, suppl. series no. 16, Ann Arbor, MI.

Michael and Reynold Higgins, 1996, *A Geological Companion to Greece and the Aegean*. Cornell University Press (tel. 1-800-666-2211) and Duckworth Publishers (tel. 44 171 729 3986). UK pounds 40 or \$55 US.

Using geology in its broadest sense, [the authors] not only describe the bedrock and the geomorphology of Greece and the Aegean region, but also discuss ancient sources of water, stone, and metals in relation to the development of settlements. They explore the links between archaeology and geology, asking how the geological environment shaped settlement in antiquity and how subsequent geological processes have influenced the preservation or destruction of ancient sites...Their general survey is followed by the treatment of individual sites within

settlements. [This book] includes over 140 maps, as well as space shuttle photographs...

Agostino del Riccio, *Istoria delle Pietre* (Torino 1996; 231 pp.; Lit. 150.000).

An important new work on marble in antiquity. Well bound and illustrated with many colour photographs of marbles. With comments by R. Gnoli and A. Sironi, edited by U. Allemandi.

Asher Shadmon, 1996, *Stone: An Introduction*. Second Edition. IT Publications, 103/105 Southampton Row, London, WC1B 4HH, UK, UK pounds 14.90/\$28.70, 184 pp. tel. 44 171-436 9761, fax -436 2013, email itpubs@gn.apc.org

Bridges the gap between the geologist and the stone user and designer, book describes the benefits of stone, its great variety and versatility, methods of extraction and working, and production and marketing prospects. The 2nd edition adds a chapter on stone and the environment, emphasizing planning, waste recycling and quarry rehabilitation.

Vanhove, 1995, *Roman Marble Quarries of Southern Euboeia*. Brill Publishers, The Netherlands. \$122.50

Articles

Pilar Lapuente & Bruno Turi, 1995, *Marbles from Portugal: Petrographic and Isotopic Characterization*. *Science and Technology for Cultural Heritage* 4, 33-42; and *Study of quarries in the Estremoz Anticline and Viana do Alentejo*. Isotopes uniform, in first ranging from $\delta^{18}O$ (PDB)=-7.48 to -5.14 and $\delta^{13}C$ =+0.22 to +3.20; in the second $\delta^{18}O$ (PDB)=- 10.37 to -5.79 and $\delta^{13}C$ (PDB)=-1.69 to +0.87.

Pilar Lapuente, Ph. Blanc & S. Lodola, 1996, *Marbles from Hispania: Preliminary quantitative cathodoluminescence*. Abstracts, International Conference on Cathodoluminescence and Related

Techniques in Geosciences and Geomaterials, Nancy, France 81-82.

Gianni Ponti, 1996, Ancient quarrying at Aphrodisias in the light of the geological configuration, 105-110 in C. Roueché and R. Smith, eds., Aphrodisias Papers 3, Journal of Roman Archaeology, suppl. series no. 20, Ann Arbor, MI.

Peter Rockwell, 1996, "The marble quarries: a preliminary survey," 81-103 in C. Roueché and R. Smith, eds., Aphrodisias Papers 3, Journal of Roman Archaeology, suppl. series no. 20, Ann Arbor, MI.

Susan Walker & Keith Matthews, 1996, Marbles from the Temple of Zeus and the Baths of Trajan at Cyrene. Seminario di Archeologia e Storia dell'Arte Greca-Romana, Università di Roma "La Sapienza", Studi Miscellanei 29, 307-315.

Communications

"Le scienze della terra e l'archeometria." Conference held in Naples, 20 - 21 February 1997, organised by the Istituto Universitario Suor Orsola Benincasa. Papers given included:

Macchiarola M., Mazzei M., Patete S., "Caratterizzazione dei materiali musivi del mosaico pavimentale a tessere irregolari del IV-III sec. a.C. denominato "grifi-pantere"
De Francesco A.M., Crisci G.M., Lanzafame U., "Nuovi sviluppi del metodo analitico non distruttivo in fluorescenza X per risalire alla provenienza di ossidiane archeologiche"
Ferrari A., Fontana A., Pessina A., Steffè G., Visentini P., "Provenienza e circolazione delle rocce silicee scheggiate fra Mesolitico ed Età del Rame in Emilia centro-orientale, Romagna e Friuli"
Lazzarini L., "Sulla scoperte dell'origine della "breccia nuvolata" e del "pomarolo"
Bugini R., Folli L., "Studi sulla provenienza dei materiali lapidei utilizzati a Brescia in epoca romana"
Lorenzoni S., Pallara M., Venturo D., Zanettin E., "Le macine in rocce vulcaniche

della Puglia e della Basilicata e la loro importanza nella ricostruzione delle antiche vie di comunicazione"

"Remote Sensing Applications in Archaeology," May 29-31, 1997, St. Cloud State University. We invite people to visit our new website: <http://www.eleftheria.stcloud.msus.edu/rsaawhich> includes not only program information but also resources for Remote Sensing. Those unable to attend the conference can post queries and problems that can then be addressed by those in attendance (or on-line).

The Remote Sensing Applications in Archaeology conference will focus on the use of aerial and satellite remote sensing platforms in archaeology and related disciplines. Among the topics to be included are photography, color and thermal infrared imagery, thermal and multispectral satellite imagery, and multi-band radar imagery.

Representatives from NASA and JPL will be present and are seeking input from researchers and archaeologists concerning future plans for remote sensing platforms and projects. Software demonstrations and information concerning data sources will also be part of the conference. Some hands-on activities will be organized. Scheduled speakers include Keynote Speaker: Robert McCormick Adams, Secretary, Smithsonian Institution and a Special Speaker: NASA Shuttle Astronaut.

Send correspondence to:
RSAA@eleftheria.stcloud.msus.edu

or
Benjamin Richason
Spatial Analysis Research Center
Dept. of Geography
St. Cloud State University
St. Cloud, MN 56304
Further information, updates, and on-line registration forms are available on the conference WWW page:
<http://eleftheria.stcloud.msus.edu/rsaa>

An Exhibition entitled "Animals in Antiquity" is being held at the Aspen Art Museum, Aspen, CO, sponsored by the Museum and ASMOSIA member Robert Haber. The exhibition will run from February 13 to April 6, 1997.

Further information from:

Aspen Art Museum
590 North Mill Street,
Aspen, CO 81611
tel. 970/925-8050

or from

Robert Haber & Associates
16 West 23rd Street
New York, NY
tel 212-243-3656.

The Archeotechnology section of the journal JOM is now on the web at the following URL:

<http://www.tms.org/pubs/journals/JOM/>

JOM is published by the Materials Society (TMS) and has a distribution of over 14,000. The objective of the Archeotechnology section is to introduce the scientific analysis of archaeological materials to both materials scientists and archaeologists.

To submit an article to JOM, contact:
James J. Robinson, JOM
420 Commonwealth Drive
Warrendale, PA 15086, USA

A new web site "TEACHING ARCHAEOOMETRY" is now available at the following URL:

<http://www.grad.uiuc.edu/departments/ATAM/teach-arch.html>

The purpose of the site is to provide resources for the teaching of archaeometry/archaeological science. It includes background on the field, course syllabi from several universities, a "Forum" for postings on curriculum and training issues, and other web links.

"PARIA LITHOS: Quarries, Marble, and Workshops of Sculpture of Paros." Late September 1997. First International Conference on the Archaeology of Paros and the

Cyclades. This 1997 Parian Conference is proposed to analyse and interpret data related to the significance of the local quarries and to the multifaried artistic activities of its marble workshops. The Conference will also address problems regarding the diffusion of Parian marble, not only in Greece—and its major sanctuaries—but also in Italy, Sicily, and the southeastern Mediterranean. Finally, the Conference will discuss petrological and geophysical aspects of Parian marble, namely the identification—"fingerprints," chemical composition, and the conservation of Parian marble. The deadline for papers closed on 31 December 1996. All correspondence should be addressed to:

Professor D. U. Schiliardi
Conference "Paria Lithos"
B' Ephorate of Prehist. and Class.
Antiquities
Polygnotou 13, Plaka (105 55)
Athens, Greece
tel/fax: 7510911

ASMOSIA V. 11 - 15 June 1998.

First announcement and call for papers. The fifth meeting of ASMOSIA will be held at the Museum of Fine Arts, Boston in 1998. Papers will be given at the Museum from 11 - 13 June, followed by a one- or two-day field trip in New England. Those interested in attending the meeting are encouraged to make presentations. Papers will be welcome dealing with all aspects of stone in antiquity. Themes of the meegins will be the identification and analysis of stones used in antiquity, the exportation of stone, the use of stone in art and architecture, weathering of stone, and questions of authenticity involving ancient stone and marble artifacts. Papers of the conference will be published. The deadline for submitting abstracts is 03 January 1998. Submission forms for proposed papers and instructions for submitting abstracts are available from:
Department of Classical Art, Museum of Fine Arts, Boston
465 Huntington Avenue

Boston, MA 02115-5567
web address:
<http://www.oberlin.edu/~scarrier/ASMOSIA/Intro.html>

Calendar

(* = new items or information)

1997

April 02-06. Society for American Archaeology, Annual Meeting, Nashville, TN, USA.
Contact SAA
900 Second St., NW, #12,
Washington, DC, USA.
tel. 202-789-8200.

April 07-11. Materials Research Society, Spring Meeting, San Francisco.
Contact Materials Research Society,
9800 McKnight Road,
Pittsburgh, PA 15237 USA.
tel. 412-367-3003
fax 412-367-4373.

April 10-13. Computer applications and quantitative methods in Archaeology. 25th Anniversary Conference, University of Birmingham, U.K.
<http://www.bufau.bham.ac.uk/caa97.htm>

April 13-17. Geochemistry and Archaeology, American Chemical Society Spring Symposium, San Francisco.
Contact Dr. Richard P. Evershed
Organic Geochemistry Unit
School of Chemistry
University of Bristol, Cantock's Close,
Bristol BS8 1TS, U.K.
tel. 44-117-9287671
fax 44-117-9251295
e-mail: r.p.evershed@bristol.ac.uk

May 06-11. IVth International Symposium on the Conservation of Monuments in the Mediterranean Basin.
Contact Prof. A. Moropoulou
NTU-A. Office for Public & International Affairs, 9 Iroon Polytechniou, Zografou Campus

157-73 Athens, Greece
tel. 30-1-772 2017/772 2006
fax 30-1-772 2028.

May 16-17. Les Faubourgs des Villes, Suburbia, en Gaule Romaine et dans les Regions Voisines, Paris.
Contact Dr. Robert Bedon
Centre de Recherches Andre Piganiol,
Faculte des Lettres et des Sciences Humaines,
Universite de Limoges,
39 E, rue Camille-Guerin, F-87036,
Limoges.

*May 29-31. Remote Sensing Applications in Archaeology. St. Cloud University, Minnesota, USA.
Information in this newsletter.

June 23-27. Engineering Geology and the Environment, Athens.
International Symposium sponsored by the International Association of Engineering Geology.
Information: Hellenic Committee of Engineering Geology
Athens 1997 Symposium Secretariat
P. O. Box 19140
GR-117 10 Athens, Greece
fax 301-381-3900.

Sep 02-04. Archaeological Sciences '97 Durham. University of Durham, UK.
Contact Dr. Andrew Millard,
Department of Archaeology
University of Durham
South Road, Durham. DH1 3LE. U.K.
Tel: +44 191 374 4757
Fax: +44 191 374 3619
e-mail: A.R.Millard@durham.ac.uk
<http://www.dur.ac.uk/Archaeology/confs/ArchSci97.html>

Sep 10-13. Metals in Antiquity, Cambridge, Mass. USA. Sponsors Harvard University, Archaeometry Laboratories and the University of Bradford, Ancient Metallurgy Research Group.
Contact Suzanne Young at Harvard
tel. 617-495-4388
fax 617-495-8925
email: SYoung@FAS.Harvard.Edu

or
Dr. Paul Budd at Bradford
tel. 44-1274-383554,
fax 44-1274-385190,
email P.Budd@Bradford.ac.uk.

Sep 16-19. Second Congress on
Archaeometry, Zaragoza, Spain.
Organized by the Grupo de
Espectroscopia Analitica y Sensores of
the Department of Analytical Chemistry
of the University of Zaragoza and the
Grupo Interdisciplinar de Arqueometria
de la Universidad de Zaragoza. Abstract
deadline 30 November.

Contact Josefina Perez Arangegui
Depto. Quimica Analytica
Facultade de Ciencias
Universidad de Zaragoza
Pl. San francisco, s/n, 50009
Zaragoza, Spain.
e-mail jperez@msf.unizar.es
tel. 34 76 761000,
fax 34 76 761292.

Sep. 21-27. XIII International
Symposium on Environmental
Biogeochemistry, Monopoli (Bari)
Italy. Special session of weathering
processes of monuments and
techniques of diagnosis.
Information Prof. Nicola Senesi
XIII ISEB, Istituto di Chimica
Agraria, Univ. di Bari, via Amendola
165A, 70126 Bari, Italy.
tel. 39-80-5442853
fax 39-80-5442813,
email nsenesi@mail2.clio.it

*Late Sept. Paria Lithos. International
Conference on the marble of Paros.
Information in this newsletter.

Oct. 20-23. Geological Society of
America, Annual Meeting, Salt Lake
City, Utah, USA.
Contact GSA
3300 Penrose Place
Boulder, CO 80301
tel. 303-447-2020
fax 303-447-1133.

Dec.01-05. Materials Research Society,
Fall Meeting, Boston, Mass., USA.

Contact Materials Research Society,
9800 McKnight Road,
Pittsburgh, PA 15237 USA
tel. 412-367-3003
fax 412-367-4373.
[http://www.wisc.edu/anthropology/sas/
184D.htm](http://www.wisc.edu/anthropology/sas/184D.htm)

*Dec. 27-30. Archaeological Institute
of America, Annual Meeting,
Chicago, IL USA. Deadline for
abstracts March 21. AIA 656 Beacon
Street, Boston, MA 02215-2010

1998

Apr. 27-May 01. International
Symposium on Archaeometry -1998,
Budapest. Information in Dec '96
newsletter.

June 11-15. ASMOSIA V, Boston.
Information in this newsletter.

New Members

Dr. Göran Åberg
Institute for Energy Technology,
P. O. Box 40
N-2007 Kjeller, Norway
email: gaa@ife.no.

Prof. Michael Higgins
Sciences de la Terre
Université du Québec à Chicoutimi
Chicoutimi, Québec G7H 2B1
Canada
tel. 418-5455011 (ext 502)
fax: 418-5455012
e-mail:
MHIGGINS@UQAC.UQUEBEC.CA

Ms. Thérèse O'Gorman
Michael C. Carlos Museum
571 South Kilgo Street
Emory University
Atlanta, GA 30322
tel. 404-727-1051
fax 404-727-4292
e-mail: togorma@emory.edu

Address correction:

Dr. Bojan Djuric
Department of Archaeology
Faculty of Art
P.O. Box 580
SI - 61001 Ljubljana, Slovenia