

SAS

Volume 3 Number 3 Winter 1980

Newsletter

SOCIETY FOR ARCHAEOLOGICAL SCIENCES

Archaeological Research Unit, Radiocarbon Laboratory, Department of Anthropology
University of California, Riverside — Riverside, California 92521

NEWS OF THE SOCIETY

FROM THE PRESIDENT: RESULTS OF QUESTIONNAIRE

Only 71 members of the SAS had responded by Dec. 15, 1979 to the Newsletter questionnaire that went out during September. Since the respondents included a wide range of comments and suggestions, the survey is probably more representative than the numbers suggest.

In terms of specific technical expertise, 31 listed various aspects of 'geo-archeology', 28 what could be grouped as 'archeometry' (including dating methods, materials research, geophysical prospecting), and 18 'bio-archeology' (evenly divided between archeobotany and zoo-archeology). This indicates a healthy mix of interests.

Of 78 comments on optimal goals for the SAS, 31 suggested information exchange, 26 a bringing together of interdisciplinary researchers, and 21 a catalytic function by stimulating multidisciplinary research. Together with the low response to the questionnaire, this seems to suggest that a majority of the SAS members still are passive consumers of information. But there also is a substantial group of people highly eager to see a more effective integration of archeological science--both between the specialties and within the broader umbrella of archeology.

The greatest majority see the Society for American Archaeology meetings as the best occasion to meet (52 of 107 suggestions). Other responses included: the Geological Society of America (15), the American Quaternary Association (11), and the American Institute of Archaeology (8). However only half indicated that they would attend the SAA meetings in Philadelphia (1980), negative factors including geographical location and expense.

Suggestions for improvement of the Newsletter focused on expanded coverage of or attention to new research projects, publications, meetings, events, research opportunities, and policies. These comments are being passed along to the editor of the Newsletter. I will also suggest that the Newsletter solicit brief articles outlining the interests and activities of common-interest groups such as the Division of Archeological Geology of the GSA, the Archeological Chemistry Division of the American Chemical Society, the new Materials Science Society, the Annual International Symposium on Archeometric and Archeological Prospecting, and so forth. A more regular listing of forthcoming meetings, particularly with details of programs and symposia of interest to the SAS, will however require the cooperation of their organizers. Hopefully the Newsletter can, in the future, count on a regular input of such information.

Response to the idea of archeological science Abstracts was remarkably positive, with 50 of 69 respondents definitely willing to pay up to \$10 per year. However, several members pointed out that the Art and Archaeology Technical Abstracts, which runs about 2000 abstracts each year, covers a wide range of applications of the natural sciences to archeology. The AATA is produced by a few hundred volunteer abstractors around the globe, organized by 15 regional editors. Coverage of archeometry is good, but almost no bio-archeological and geo-archeological papers from the Journal of Archaeological Science are presently included in the AATA. Consequently,

although the AATA (at \$20 a year, but \$7.50 to members of the IIC=International Institute for Conservation of Historic and Artistic Works) is a highly useful publication, it would need very considerable expansion in archeobotany, zoo-archeology, and geo-archeology. The AATA editors have indicated willingness to consider such a proposal from the SAS, arguing that collaboration would be far more economical. The SAS executive board will therefore consider the matter, and I hope that a satisfactory arrangement can be worked out, provided that we can obtain volunteers to accept the responsibilities and considerable work involved. Please write if you are interested.

The Journal of Archaeological Science is evidently not yet viewed as a potential organ of the SAS. Only 47 respondents (66%) indicated willingness to pay \$25 for the JAS plus the SAS Newsletter, if this could be arranged as a membership 'package'. Part of the problem is the matter of cost, with most of us belonging to several other professional organizations by virtue of our interdisciplinary interests. The strong body of suggestions as to JAS content do however point to a more fundamental problem. Two thirds of the suggestions called for better-balanced coverage, of greater appeal to the generalist, and emphasizing theoretical as well as broad interdisciplinary papers (rather than specialized, technical reports). Many respondents asked for less overlap with Archaeometry and greater individuality. As one person put it, "leave archaeometry to Archaeometry. Concentrate instead on interdisciplinary material. Make it a Quaternary Research for archaeologists and a place to publish 'thought' pieces." As editor of JAS, I share these views strongly, and there are good indications that North American authors are beginning to respond to my initiatives. I will now raise the matter with my co-editors in London to see whether our overall editorial policies can be actively developed in this direction.

Regrettably, Academic Press continues to jeopardize the evolution of the JAS by raising its prices, without consultation. The proofs for the new advertisement that I saw in May 1978 indicated a "personal subscription rate" of \$20, but when the ad finally appeared this had been changed to \$27 for 1979. Then in November 1979, personal subscribers were billed \$35 for 1980, to my great surprise. I protested strongly to both the New York and London officers, and have now received assurances from Mr. Joseph Petrowski, Vice President of Academic Press, that the price will be rolled back to \$29.50 (exactly half the institutional price). As I understand it, personal subscribers who have already paid \$35 will be credited the difference of \$5.50. Academic Press further assures me that, despite the inflationary price spiral affecting JAS production, personal subscription increases over the next 2 years will be kept to a reasonable minimum, probably under 10% overall.

Part of the JAS price problem does of course reflect a negligible increase of personal subscriptions during 1979, despite the substantial cut in price offered by Academic Press. We obviously can't have our cake and eat it too: establishing a journal as an effective medium depends on authors and subscribers/readers. Since the standard archeological journals are badly crowded, and since publication in non-archeological journals is counter-productive to our interdisciplinary research interests, we do need a journal. What we make of the opportunities provided by the JAS over the next 2 years will make all the difference.

Best wishes in 1980,

Karl W. Butzer, President

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NEWS OF THE PROFESSION

GRADUATE RESEARCH ASSISTANTSHIPS IN ENVIRONMENTAL ARCHAEOLOGY

Environmental archaeology requires cooperation among several disciplines and academic departments. The Institute for Quaternary Studies was established at the University of Maine with the goal of facilitating interdisciplinary graduate training and research. The Institute is staffed with personnel prepared to train graduate students not only in traditional archaeology, but also in marine, lacustrine, and terrestrial paleoecology, Quaternary geology, and glaciology. Students wishing to focus in environmental archaeology may pursue a Master of Science degree in Quaternary Studies offered through the Institute, and related subjects may be pursued at the University of Maine. Course requirements leading to an M.S. degree involve an initial two semesters of course work designed to familiarize students with the basic principles, concepts, and goals. A thesis is required which embodies original research; it is to be concentrated in one or more disciplines.

Three environmental archaeological research programs centered along the coast of Maine, in northern Maine, and in the Pryor Mountains of Montana provide students with an opportunity to be involved in problems of human adaptation to marine, lake and ice marginal, and mountainous environmental settings. A limited number of graduate research assistantships are available for student participation in these research programs. Funds will be provided for student research focusing on geochemical and petrographic investigation of lithic source material, lithic technology, marine and terrestrial faunal analysis, palynology, and soils and stratigraphy of archaeological sites. Additional information on these research programs can be obtained by writing Robson Bonnichsen or David Sanger, Department of Anthropology, University of Maine, Orono, Maine 04469.

Application forms and information on graduate fellowships and traineeships may be obtained from: Dr. Donna Evans, Acting Dean, Office of the Graduate School, University of Maine at Orono, Orono, Maine 04469.

Information on the graduate and undergraduate programs in Quaternary Studies may be obtained from: Dr. Harold W. Borns, Jr., Director, Institute for Quaternary Studies, 304A Boardman Hall, University of Maine at Orono, Orono, Maine, 04469.

MUSEUM RESEARCH SCIENTIST POSITION OFFERED

The Metropolitan Museum of Art is advertising for a Museum Research Scientist. The duties include technical examination and authentication of fine art objects and archaeological materials in the museum objects Conservation Department. Facilities for the following analyses are available: thermoluminescence, X-ray fluorescence, X-ray radiography, infrared spectrophotometry, and optical microscopy. An advanced degree in physical sciences is required, and experience in thermoluminescence is highly desirable.

For information, or to apply, write to: Dr. Gary Carriveau, Senior Research Physicist, Metropolitan Museum of Art, 5th Ave. at 82nd St., New York, N.Y., 10028.

RESEARCH ASSOCIATE POSITION IN ZOOARCHAEOLOGY

The University of Missouri-Columbia has a position opening for a zooarchaeologist with expertise in identification of North American faunal remains. This research associateship is a permanent, non-tenure track academic position. Candidates should be at the Ph.D. level, and demonstrate commitment to research and publication. Experience in human bone identification and forensic anthropology is highly desirable.

Duties and responsibilities include: 1) maintaining an active program of research and publication; 2) serving as principal investigator on contracts and grants from other institutions and state and federal agencies, as well as guiding grant work to completion; 3) curating and guiding use of faunal remains; 4) guiding and aiding in service aspects of identification of faunal

remains for individuals, local and state officials, and other institutions; 5) limited teaching in research related areas; 6) training graduate and undergraduate students in faunal analysis; and 7) contributing to the forensic anthropology program.

The appointment is on a 9 month basis, beginning September 1, 1980. The salary is open.

Send a vita and letters of reference to Dr. Carl Chapman, 205 Swallow Hall, American Archaeology Division, Department of Anthropology, University of Missouri-Columbia, Columbia, MO. 65211, (314) 882-4731.

WORKSHOP IN SOIL SURVEY TECHNIQUES, MAY 19-29, 1980

A two week course on the preparation of soil maps is being offered by the Department of Agronomy, University of Maryland.

In order to know the limitations and potentials of soils, they must be identified, mapped, and classified. The course includes an introduction to the soil system, soil morphology, aerial photographs, and soil-geologic relationships. After the introductory lectures, all other activities will be conducted in the field. The first week will be held near College Park, Maryland, in the Coastal Plain and Piedmont physiographic provinces. The second week will be in the Appalachian physiographic province near Tharpsburg, Maryland. The locations have been selected to acquaint students with a variety of landscapes and soils.

The course has been designed for students and professionals in the following fields: soil science, agronomy, geology, geography, archaeology, engineering, and environmental studies.

To apply, write: Mr. Thomas O'Brien, Department of Registrations and Records, University of Maryland, College Park, MD 20742.

For further information, call: Dr. John E. Foss, Professor, University of Maryland, Soil Classification, Genesis, and Survey, (301) 454-4787; or Dr. Delvin S. Fanning, Professor, University of Maryland, Soil Mineralogy and Classification, (301) 454-3721.

MEETING NOTES

SMITHSONIAN-NBS SEMINAR SERIES

This year the Conservation Analytical Laboratory at the Smithsonian Institution and the National Bureau of Standards are sponsoring a seminar series on the Application of the Materials and Measurement Sciences to Archaeology and Museum Conservation.

The March seminar was presented by Barbara Luedtke, Department of Anthropology, University of Massachusetts-Boston, who spoke on "Analyzing Trace Element Data: Comparisons of Statistical Procedures for Matching Unknowns With Sources." Using a body of trace element data derived from neutron activation analysis of quarry samples and archaeological artifacts from Upper Great Lakes chert sources for illustration, she discussed basic decisions which must be made with regard to pre-processing the data and determining which statistical procedures are appropriate for the data involved and the goals of analysis. Since the most common goals involve the detection of patterns in the data, she discussed cluster analysis, discriminant analysis, and the use of identification keys as pattern recognition techniques, and their relative advantages and disadvantages.

Two more talks are scheduled in the series. On April 23rd, Steven Carpenter, NBS, will speak on "Fission Track Dating," and on May 14th, Suzanne De Atley, Fellow, Smithsonian Institution, will discuss "Identifying Systems of Ceramic Production in the Prehistoric Southwest."

SEMINAR ON CERAMICS AS ARCHAEOLOGICAL MATERIAL: SEPT. 29-OCT. 1, 1980

This seminar is part of the CAL-NBS series mentioned above. The purpose of the meeting is to further the application of the tools of the materials and measurement sciences to

archaeological problems involving ancient ceramics, and to do this by providing a forum for thoughtful discussion and exchange of views and experiences. The seminar will be composed of two elements: oral presentation of major papers with sufficient time (perhaps 30 minutes) for the speaker to develop his subject in depth and to bring to his audience his appreciation of the large topic into which his work fits; and a poster presentation of papers describing specific and detailed research results. It will be of particular concern that the papers develop as much as possible both the material science approach and the archaeological problem to which it is applied. Indeed, it is one of the aims of the seminar to bring together in the discussion both archaeologists and physical scientists with mutual interests in archaeological ceramics.

Areas of discussion will include: 1) physical science studies whose ultimate goal is to reveal information on the ancient ceramic technologies and the organization of ceramic production, or to cast light on the function of the ancient ceramics; 2) studies of composition, both chemical and mineralogical, for investigation of provenience, sources and trade patterns; and perhaps 3) standardization of physical and chemical measurements and the use of statistical and multivariate techniques in the analysis of data.

It is planned to publish the Proceedings through the Smithsonian Press. Both oral and poster session papers will be eligible for inclusion, but manuscripts will be required at the time of the seminar to facilitate publication. Those wishing to present papers should signal their intention to do so by July 1, 1980 to Alan D. Franklin, A329 Materials Bldg., National Bureau of Standards, Washington DC 20234 (tel. 301-291-2901). The information provided should include: 1) authors' names and addresses, underlining the speaker's name; 2) title; 3) whether paper is intended for poster or oral presentation, and if the latter, maximum and minimum speaking times; and 4) a brief abstract. Questions concerning the seminar may also be addressed to Jacqueline Olin, Conservation Analytical Laboratory, Smithsonian Institution, Washington, DC 20560 (tel. 202-381-5714).

RECENT PUBLICATIONS

PROCEEDINGS, TENTH INTERNATIONAL RADIOCARBON CONFERENCE

The Proceedings of the 1979 conference, edited by Minze Stuiver, University of Washington, are being published by Radiocarbon, and are scheduled for Summer 1980 publication. Two issues, Volume 22, Numbers 2 and 3, 1980, contain the proceedings and will be sold together for \$35.00. Please address inquiries or orders to Renee Kra, Managing Editor, Radiocarbon, Box 2161 Yale Station, New Haven, Conn. 06520.

PROCEEDINGS, COASTAL ARCHAEOLOGY SESSION

In November, 1979, the International Geographical Union's Commission on the Coastal Environment met at Newport, R.I., in conjunction with the annual meeting of the Coastal Society. During the two-day IGU-CCE gathering, four paper-presentation sessions were held. For two of these, the coastal-archaeology session and the Bruun Rule symposium, proceedings volumes have been published. Single copies of each are available, free, upon request. Write to Maury Schwartz, Dept. of Geology, Western Washington University, Bellingham, WA. 98225.

ANNOTATED BIBLIOGRAPHY FOR RADIOCARBON DATING

An extremely important bibliography for anyone involved in evaluating radiocarbon data has just been published by the Radiocarbon Dating Research Laboratory, Australian National University, Canberra. The author is a professional librarian, Mrs. Dilette Polach. The title of the work is *First 20 Years of Radiocarbon Dating: An Annotated Bibliography, 1948-1968*. 1000 abstracts out of 3015 bibliographic citations collected for the twenty year period are presented in what the author indicates is a pilot study. The bibliography has been divided into fourteen categories: bibliographic works, theory and theoretical research, techniques and instrumentation, general geology, glacial geology, ocean studies, Pleistocene, Archaeology (Africa, America, Asia, Europe, Oceania), Conferences and Symposia and Date Lists. This pilot bibliography was first made available at the Tenth International Radiocarbon Dating Conference, Bern and Heidelberg, August 1979.

An analysis of the bibliographic data by Mrs. Polach clearly pointed to the great diversity of the ^{14}C literature. Reference material appears in some 450 periodicals. A statistical study of the indexed literature indicated that about 33% deals with archaeological applications and about 31% is relevant to geological contexts. An evaluation of existing computer-based data bases showed the inadequacy of current data retrieval systems. Retrieval of archaeologically-related titles was especially poor. Her study points to the great need for a comprehensive computer-based retrieval system for radiocarbon literature including the original published values.

Those interested in obtaining a copy of this important work should write to the author at P.O. Box 43, GARRAN, A.C.T. 2605, AUSTRALIA or The Radiocarbon Dating Research Laboratory, Australian National University, P.O. Box 4, CANBERRA, A.C.T. 2600, AUSTRALIA.

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