SAS
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NEWSLETTER
SOCIETY FOR ARCHAEOLOGICAL SCIENCES

Archaeological Research Unit, Radiocarbon Laboratory, Department of Anthropology
University of California, Riverside — Riverside, California 92512

CURRENT RESEARCH

ARCHAEOLOGICAL APPLICATIONS OF REMOTE SENSING

The Remote Sensing Division of the Southwest Cultural Resources Center in Albuquerque, New Mexico is a joint National Park Service/University of New Mexico operation. Its primary activities are directed toward the development of remote sensing methods which can be applied to cultural resource management and archaeological research. The Division maintains an extensive laboratory for remote sensing, including electronic image enhancement and manipulation equipment, stereoscopes and other interpretive aids, an archive of remote sensor data (primarily covering National Park Service areas, but including other areas as well), and a technical library.

While photogrammetric mapping and site discovery once formed the core of the Division's activities, the emphasis has shifted with the changing focus of archaeology in the United States. Present research is concentrated on the sampling of cultural resources over large areas, and experiments are currently taking place in the National Petroleum Reserve in Alaska and in the San Juan Basin of Northwestern New Mexico. The basis for sampling in these areas is informed ecologic/cover-type stratification using data derived from Landsat space imagery, aerial photographs, and other sources. Results to date indicate that such stratification permits the use of very small samples as input in predictive schemes aimed at planning cultural resource treatment in large areas. This type of sampling strategy is desperately needed to keep pace with the acceleration of energy extraction activities.

New methods and results are communicated to managers and archaeologists through the Division's publication series. The first issue is *Remote Sensing, A Handbook for Archaeologists and Cultural Resource Managers,* by Thomas Lyons and Thomas Avery. This useful book outlines the basics of remote sensing: what it is, how to use aerial photos and other remote sensor data, measurement from stereo photos, interpretation techniques with specific emphasis on man's modification of the natural environment, and general specifications for archeological photography. Recent supplements to the *Handbook* include an exercise manual to be used with the text and an instrumentation manual. These provide more specific materials and information on remote sensing and cultural resources. Over the next few years additional supplements in the series will appear to keep the cultural historian and manager up to date with developments in the field. They will deal with techniques for diverse geographical areas (Alaska, Pacific Northwest, Midwest, Southwest, Great Plains, and Hawaii), and remote sensing applications for special purposes (ethnology, historic archaeology, architecture, film emulsions, etc.). Publications in the series are available from: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Submitted by James I. Ebert, Remote Sensing Division, SW Cultural Resources Center, P.O. Box 26176, Albuquerque, N.M. 87125.

NEWS OF THE SOCIETY

SAS FOUNDING OFFICERS ELECTED

Results of the recent SAS election were announced at the First Annual Business Meeting. The founding officers of the Society are:

President:	Karl W. Butzer
Vice President/President-Elect:	R.E. Taylor
Secretary-Treasurer:	Rainer Berger
Assistant Secretary-Treasurer:	Matthew Hall

FIRST ANNUAL BUSINESS MEETING: REPORT OF THE SECRETARY-TREASURER

Acting Secretary R.E. Taylor called the Business Meeting to order at 5:15 PM. April 25, 1979 in Vancouver, B.C. The agenda consisted of the following items:

1. Report of the Acting Executive Board and Acting Secretary (R.E. Taylor)
   The SAS membership was 372 as of December 31, 1978, and since that time it has increased to over 600. Balance on hand as of December 31, 1978 was $1218.00, and no liabilities were incurred. Income and expenditure statements for 1977 and 1978 are on file.
2. Report of the *Newsletter* Editor (S.P. De Atley)
   Thanks to participation by the regional coordinators the information flow has increased substantially, and the *Newsletter* staff has managed to get the publication out quarterly over the past year. In future issues the Recent Publications section will be expanded to include a list of current titles of books, papers, articles, etc. on archaeological sciences. The feasibility of providing an annual supplement of Abstracts in Archaeological Sciences is currently being investigated.
3. Report of the Elections Committee and Installation of New Officers
4. Adoption of the Budget for 1979-1980
   The budget was approved with the ammendment that *Newsletter* Printing and Other Printing allocations be raised to $500.00 each. Total projected expenditures amount to $1225.00.
5. New Business
   The membership discussed the desirability of having the SAS become an affiliated society of either the American Anthropological Association of the American Association for the Advancement of Science.
   The Society endorses in principle efforts to create or support a National Archaeometric Center at Los Alamos, New Mexico.
   It was agreed that a limited SAS participation should be planned for the 1980 SAA meeting in Philadelphia, with a full-scale meeting at the 1981 SAA meeting in San Diego to follow.

Rainer Berger
Secretary-Treasurer

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EDITOR: S.P. De Atley
ASSOCIATE EDITORS: P.I. van der Hoeven, Matthew Hall

NEWS OF THE PROFESSION

ARCHAEOLOGY AND ANTHROPOLOGY COMMITTEE IN THE SOCIETY OF PHOTOGRAMMETRY

A Committee on Archaeology and Anthropology has been established within the American Society of Photogrammetry. The ASP is the "mother organization" for those using remote sensing and aerial data in the United States, and the formation of this committee indicates that archaeological and anthropological use of remote sensing has become recognized by other photogrammetrists.

The purpose of the committee is to encourage the exchange of data and ideas resulting from the application of remote sensing techniques and methods to archaeological and anthropological problems. It facilitates communication among researchers using remote sensing methods in the discovery, photogrammetric measurement, documentation, and graphic representation of prehistoric, historic and contemporary cultural evidence and in the measurement of the physical aspects of man's interrelationship with his environment.

The committee acts in an advisory capacity to the Remote Sensing Applications Division, assists in planning technical sessions at meetings, and encourages archaeologists and anthropologists to employ remote sensing in their work. It also aids authors in the preparation of publishable papers for the ASP journal, *Photogrammetric Engineering and Remote Sensing*, and for other related publications. Papers which deal with the use of remote sensing in archaeology and anthropology are currently being solicited for the journal. Articles may be sent to James I. Ebert, 3100 Ninth Street, NW, Albuquerque, New Mexico 87107.

COMMITTEE ON HISTORY AND ARCHAEOLOGY OF MATERIALS

The American Society for Metals has established a new Committee on History and Archaeology of Materials. The purpose of the committee is to provide the Society and the materials community with a focal point for activities in these areas. In addition, it is developing a liaison relationship with other organizations, such as the SAS and the Society for the History of Technology, to foster cooperation and the exchange of information.

The committee visualizes three principal constituencies: 1) the small, but growing, number of people who are professionally engaged in this work who need a forum for the presentation and discussion of their results, and an appropriate place to publish; 2) American Society for Metals members who wish to be intellectually involved in understanding our materials heritage through attendance and subscription; 3) people from the museum and conservation community who wish to have improved access to materials science and technology as it relates to their interests.

Members of the committee include Dr. Edward Epremian, Chairperson (National Research Council), Dr. John W. Cahn (National Bureau of Standards), Dr. M.E. Fine (Northwestern University), Professor Ursula M. Franklin (University of Toronto), Ms. Martha E. Goodway (Smithsonian Institution), Mr. Abraham Hurlich (Santee, Calif.), Dr. Robert Maddin (University of Pennsylvania), Dr. Edward I. Salkovitz (Office of Naval Research, Arlington, Va.), Dr. Cyril S. Smith (MIT), Dr. J.H. Westbrook (General Electric Co., Schenectady, N.Y.), and Dr. Wendell S. Williams (University of Illinois, Urbana-Champaign).

One of the first projects of the committee will be a symposium which will be held on September 19th in Milwaukee. The meeting is intended to foreshadow the scope of activities of the new committee, as well as provide the Society with some interesting presentations for discussion.

THE SOIL BANQUE

At the 1978 and 1979 Annual Meetings of the Society for American Archaeology, the formation of The Soil Banque was announced. The purposes of the Banque are to stimulate interest in developmental research in biogeochemistry related to anthrogenic soil residues, and to acquire a research collection of soil samples from a wide variety of cultural and environmental settings. This collection and analytical data will be accessible to members for conducting their own research. Operating like a bank, The Soil Banque will pool resources and information to advance research in this poorly developed area of archaeology.

The Soil Banque has a number of important functions for contributors: It receives and stores solicited samples of soil; it conveys analytical data or comparative samples to contributors regarding specific samples; it maintains a collection of international, national, and in-house standards and the analytical data file; it encourages active research and serves as a clearinghouse for information on current research, new instrumentation and facilities.

The Banque is now organized and is soliciting membership. Potential contributors should request an application form from Alf Sjoberg, Secretary, The Soil Banque, 301 Alumni Building, Department of Anthropology, University of North Carolina, Chapel Hill, North Carolina 27514. Further information can be obtained by writing Dr. J.E. Ericson, Center for Archaeological Research and Development, Peabody Museum, Harvard University, Cambridge, MA 02138.

MEETING NOTES

MATERIALS SYMPOSIUM

On September 19, 1979 in Milwaukee, Wisconsin, the Committee on History and Archaeology of Materials will hold a symposium. The morning session, chaired by Robert Maddin, will cover dating, elemental and metallurgical analysis of ancient metal, as well as a general lecture on the history and archaeology of materials. The afternoon session, chaired by J.H. Westbrook, will focus on metallurgical classics, such as the first use of radioisotopes in diffusion studies.

Further information may be obtained from Robert Maddin, University Professor, University of Pennsylvania, 3231 Walnut Street, Bldg. K-1, Philadelphia, PA 19174.

ARCHAEOLOGICAL GEOLOGY DIVISION SYMPOSIUM

This year the annual meeting of the Geological Society of America, to be held in San Diego, November 5-8, 1979, will include a symposium for its relatively new Archeological Geology Division. It was developed by Bill Farrand and will cover "Recent Advances in Analytical Methods Applicable to Archeological Geology." Twelve papers have been scheduled and submitted for approval. The topics include obsidian hydration dating, thermoluminescence dating, oxygen and carbon isotopic signatures, trace element activation analysis, paleomagnetic chronology, radiocarbon dating on bone, geochronology of the Woolly Mammoth Site, Santa Rosa Island, California, tree-ring dating, soil phosphate fractionation, sample selection and preparation for the accelerator method of C-14 dating, assessment of bone as a dating material, and amino acid racemization studies. There will also be a general session in archaeological geology.

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