



# Bulletin

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## COMPUTERS IN ARCHAEOLOGY

When we began editorship of the *Bulletin* earlier this year, one of our goals was to highlight a range of topics central to the archaeological interests of the membership, including discussions of various research and teaching tools. Your feedback suggests that the most common such tool is the computer. However much we may curse it at times, the microcomputer has found its way onto most of our desks and it is now being used in virtually all aspects of archaeological activity.

As in other disciplines, word processing is probably our most common application of computer technology and many of us already have considerable familiarity with, and strong allegiances to, one of the many word processing programs available. Once we venture past writing tasks, however, into the world of hardware, peripherals, and other software applications, most of us feel much less comfortable evaluating and choosing among the alternatives.

The multitude of computer magazines currently published are one obvious source for the

information that we need to make decisions. We often find, however, that hardware and software recommended for use in the business world, where most computers are sold, are not necessarily suitable for many archaeological applications. Products that may be appropriate for our purposes are often not emphasized in the popular press, because of their more limited sales potential, and software developed for archaeology, by archaeologists, receives less public exposure still.

For these reasons, we initiated reviews of software in the June issue of the *Bulletin* and we are focusing on computers in archaeology here. In this issue, Harold L. Dibble offers his personal perspective on computerization, and provides a broader context for specific evaluations of commercial packages in the three areas: Bibliographic databases, graphics, and statistical analyses. Computer-related topics are only one of the many aspects of archaeological debate, literature, and research that will be featured in the *Bulletin* and we welcome suggestions for future topics.

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## SURVEYING THE FIELD

### INFORMATION EXCHANGE

*Jane Buikstra, University of Chicago*

I am delighted to accept Jeremy Sabloff's invitation to write a "guest President's column" for the *SAA Bulletin*. This symbolizes a healthy new spirit of cooperation between national anthropological organizations. As many of you know, in the early 1980s there was major restructuring of the SAA, the AAA, the AAPA (American Association of Physical Anthropologists), SfAA (Society for Applied Anthropology), and several other anthropological Associations that had formerly existed under the administrative umbrella of the AAA. The process of separation, though somewhat painful at the time, has yielded vigorous independent groups. The AAA, for example, now has over 10,000 members who belong to one or more of the present 26 units that cover a broad range of anthropological interests. In my view, the presence of successful, independent organizations is an important measure of the health of anthropology. Rather than being in competition with one another, the energy stimulated by each organization enhances an already robust profession.

Last summer, representatives of the AAA, AAPA, SAA, and SfAA met in Washington to discuss issues of common concern. Although each association exists at a different point in a hypothetical continuum between being a learned society and a professional organization, we have all become increasingly concerned with developing effective outreach programs designed to influence the public image of anthropological professions. The SAA has an enormously successful Washington representative whose efforts have molded legislation and developed new resources for archaeology. In parallel, the AAA's Department of External Affairs routinely cooperates on outreach issues with other social science associations and with the Smithsonian Institution, and provides information to Congress. In 1989, that Department created the AAA Federal Advisory Council to enlist anthropologists experienced with federal government in its efforts to monitor policy and legislative issues. The AAA also has a long-standing commitment to precollegiate curriculum development and quality of life; newly formed AAA task forces are charged to speak out of issues ranging from the environment to substance abuse.

As such outreach activities expand in scale and scope, it makes sense to develop cooperative initiatives. This will conserve our scarce resources and ensure that we present coherent perspectives. Cooperative ventures require communication, coordination, and the development of effective, action-oriented networks.

Our summer meeting was quite productive. Initially, we simply exchanged information about our various outreach programs, followed by more focused discussion concerning points of common interest. The AAA Task Force on Precollegiate Curriculum should, for example, serve as an excellent resource for the newly formed SAA Public Education Committee. The SAA experience with a Washington representative evoked a great deal of discussion, which will no doubt lead to a more collective involvement in the Washington scene. We also considered cooperative ventures in sponsoring non-technical publications and lecture series, as well as the need to have rapid response networks for fast-breaking news. The AAA has targeted universities with primarily minority enrollment for an innovative guest professor program, which should mesh nicely with the SAA's current outreach to Indian peoples.

Our AAA Director of Information Services, David Givens, asked participants "When will enough public outreach be enough?" Joyce Sirianni (AAPA Secretary-Treasurer) commented "Can you ever have too much? When incoming freshmen know anthropology is a great liberal arts major before coming into an Intro. class. And, when anthropology is as recognizable to students as psychology, biology, and political science." Shirley Fiske (SfAA Board Member) argued that "We'll know our outreach is successful when anthropology's image outgrows its stereotype as the search for exotic knowledge. Another milestone will be when politicians, policymakers, and government officials routinely seek anthropological advice." Let's hope that our new anthropological cooperative stance will ensure that these visions of the future become reality.

We plan to meet again following the AAA Annual Meeting in New Orleans, on Monday, December 3. We would be delighted to hear from our members concerning possible outreach initiatives. Please share your thoughts either with me (Anthropology Department, U of Chicago, 1126 E. 58th St., Chicago, IL 60637), or with Jerry. We look forward to hearing from you.



## SAA NAMED TRUST BENEFICIARY

The Society for American Archaeology is one of five organizations named in a \$500,000.00 Charitable Remainder Trust established by Peter Cohn for his brother Michael Cohn and his spouse.

Under the terms of the agreement, an amount equal to six percent of the net fair market value of the assets each year is to be paid to Michael Cohn during his life, and then to his spouse during her life. Whereupon, the remainder of the trust is to be divided equally among the five named charitable organizations.

In establishing the trust, Peter gave his brother a free hand to designate the legatees. Michael picked the SAA because of the quality of articles in its publications, and "the fact that they did not follow all the latest causes unthinkingly." Thus, in naming the Society, the Trust earmarks the proceeds for the Society's program.

The trust, administered by Merrill Lynch Trust Company, is funded by stock which "was exchanged for suitable trust shares" worth slightly more than \$500,000.00.

### What is a Charitable Remainder Trust?

A Charitable Remainder Trust is a form of giving to a tax exempt organization such as the SAA. The donor, or beneficiary designated by the donor, receives an income for life or for the term specified in the trust, while the charitable remainder becomes a gift to the organization.

Such gifts also provide considerable benefits to the donor because they qualify for income, gift, and estate tax deductions for the gift portion of the trust. An example will illustrate how a trust of this nature can benefit the giver.

A couple planning retirement needs to maintain an adequate income in their retirement years. A portion of their estate consists of stock that was acquired many years ago for \$5,000, but which is now worth \$35,000. The income, however, is only four and one-half percent, or \$1,575 annually.

At one time they had considered making an outright gift of the stock, but decided against it because they depended upon the \$1,575 to help supplement their retirement income. They realize that four and one-half percent is not a good rate of return when compared to other investment possibilities. They

know, however, that if they sell the stock and reinvest the money, they will incur a large tax on the capital gains.

Then they learn about Charitable Remainder Trusts. They use a trust to give the stock to the organization they have supported for many years. The trust (which does not have to pay tax on the gain) sells the stock and reinvests the proceeds. They increase their income from \$1,575 to \$2,450 (seven percent annual earnings), legally avoiding capital gains taxation, and receive a deduction on their income tax return for their charitable contribution.

Similar examples could be given for many other situations, e.g. persons providing assistance to parents or older people, or for helping children or grandchildren with rising tuition costs.

Through some planned giving, you can:

- support the Society, or its programs that are consistent with your goals;
- receive help in the management of investments;
- receive a life-long income;
- protect loved ones through income provided to them after your passing;
- make gifts to the Society larger than you initially thought possible;
- receive income tax savings;
- lower estate taxes;
- realize preferential treatment of capital gains tax.

While one needs the services of an attorney or other professional to set up a trust, the Internal Revenue Service has made setting up a trust relatively easy because it has developed simple documents which, if followed, will qualify the trust for the full income, estate, and gift tax deductions allowed by law.

For a free brochure on Charitable Remainder Trusts, write to the Society Executive Office.

Charitable Remainder Trusts are only one form of planned giving. Other methods will be covered in future issues of the *Bulletin*.

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## The Foundation for American Archaeology Incorporated

*Dena Dincauze, University of Massachusetts at Amherst*

Incorporation papers for the Foundation for American Archaeology were signed on April 20, 1990, at the SAA Annual Meeting and the legal incorporation process was completed in late August.

The incorporation of the Foundation follows more than a year of work by a task force appointed by Jeremy Sabloff. The task force was chaired by George Gumerman, and included Dena Dincauze, Brian Fagan, Mark Leone, William Marquardt, Francis McManamon, and Stuart Struever. The next steps for the Foundation will be to engage a professional firm of fund-raisers, and to select four Trustees and a Managing Director. Currently the pro-tem Trustees are the incorporators: George Gumerman, Mark Leone, Prudence Rice, and Jeremy Sabloff. Jerome Miller is the Acting Managing Director.

The Foundation was born of the realization that America's heritage is being destroyed through development, vandalism, theft, and misunderstanding. The Foundation's goal is to publicize and protect that heritage through provision of the resources necessary for effective public education about the nature of the past, about issues involving artifact collecting and vandalism, and about reburial of human remains and the repatriation of artifacts from museum and study collections.

The Foundation will attempt to provide information about archaeology to individuals, special interest groups, government agencies, and corporations through a number of different programs. It will provide speakers for interested organizations and school groups, act as a clearing house for opportunities to participate in archaeological projects, assist in the production of video and television specials about archaeology, and help to develop constituencies interested in the prehistoric and historic past of particular regions.

Between September, 1989, and early April, 1990, the Foundation attracted over \$5000.00 in contributions from SAA members and friends, making possible the incorporation and a formal fund drive. The drive will engage not only members of the Society, but interested individuals, foundations, and corporations throughout the hemisphere.

The Foundation represents a crucial part of the SAA's plans for the future growth and strength of archaeology, and the financial support and participation of all members of the Society are needed to insure its success. The Task Force solicits your suggestions for members of the Board of Trustees, generally non-archaeologists with a strong interest in archaeology and archaeological resources, and with skill and experience in fund-raising.

## Avocational Archaeologists and the Preservation Planning Process

*James E. Bruseeth and Nancy Adele Kenmotsu*

Over the past two decades, State Historic Preservation Offices (SHPOs) in the U.S. have been developing state plans for the preservation of cultural resources. The purpose of the plans is to provide focus and direction to many of the preservation activities currently taking place within each state. Impetus for the effort has largely been from the National Park Service, who has issued various types of guidance for completing a preservation plan (see Archaeology and Historic Preservation, Secretary of the Interior's Standards and Guidelines, *Federal Register*, Vol. 48, No. 190, pp. 44716-44740). Although this guidance has changed direction over time, it now clearly mandates that states develop preservation plans composed of historic contexts, or research themes, that identify threatened resource types in need of protection. A particularly important part of the plan will be to develop goals and priorities to protect and preserve important sites.

For several years the State Archaeologist at the Texas Historical Commission has worked actively on developing the Texas state plan. With added assistance of the SHPO, planning is gaining an even more active role in the agency. Texas has been divided into 14 regions, and for those regions of the state where planning is well underway, advisory groups made up of professionals and avocationalists have been established. These groups meet periodically to review progress on the plan, and to devise future strategies to complete the process.

From the Texas perspective, avocationalists are seen as an essential part of the process. Many of these individuals have made repeated visits to local sites, have first-hand information on the types of artifacts and features that are present, and know about the kinds of disturbance that are occurring. Such intimate knowledge about local resources can be very important in the planning process, and is a type of information that few professionals—who often live many miles from the resources—have available.

In addition to their familiarity with archaeological sites, avocationalists have other specialized knowledge that can be useful for the planning process. They are aware of local development activities, such as new housing subdivisions or shopping centers, that have the potential to threaten important sites. Many of these individuals are also knowledgeable about which sites are being vandalized, and they can form a frontline of defense against the looting of important archaeological deposits. With their knowledge about impact to the local resource base, they are a logical group to help identify needed goals and priorities of the plan.

Beyond helping to develop the Texas state preservation plan, we see a significant role for avocationalists in helping to implement the completed plan. This might entail working with a landowner to record sites on her/his property, or to help convince a property owner about the need to preserve an important site on her/his land. Avocationalists can also play a critical role in terms of education requirements of the plan. Long term changes in





public attitude about the need to protect archaeological sites from vandalism and other impact will only occur through enhanced public awareness. Presently, non-professionals are giving lectures and presentations to school children, scout groups, civic organizations, and other local groups. These efforts are an important part of our state's efforts to educate the public about archaeology, and will continue as an important goal of the plan.

The avocationals, through their local society networks, may also have a role to play in larger projects. A good example is in helping to document sites being eroded along the shorelines of the one hundred or so existing Texas reservoirs. Our plan will undoubtedly identify this as a major source of site destruction, and an area in need of urgent attention. Although federal agencies have a responsibility to survey these sites, and to evaluate and protect those that are eligible for the National Register, they never seem to have adequate funds to carry this out. Moreover, many of Texas' reservoirs are controlled by local water districts who have unclear legal responsibilities for protection of sites. The Texas Historical Commission, through the State Archaeologist and the SHPO, has been working with avocationals to assist in this process by providing volunteer labor to survey for sites, and to document existing collections from eroded sites. Discussions are even underway about setting up reservoir "friends" groups, made up of avocationals who periodically monitor the shorelines and report on site disturbance. Both of these goals will be formalized in the plan.

In conclusion, we see the preservation planning process as requiring the involvement of a great number of individuals. To be successful, a partnership needs to be formed between professional and avocational archaeologists. The task is too great to be undertaken solely by professionals.

## SAA Student Committee Formed

*J. Hamilton and Charles Houck, Tulane University*

The 54th Annual Meeting of the Society for American Archaeology (SAA) held in April, 1989, in Atlanta, Georgia, highlighted an important matter. This issue is the development of a Student Committee to involve all students of archaeology in the SAA's activities.

Many student members do not participate fully in the activities and benefits of the Society. More is being done to recruit new student members and to entice existing student members to attend meetings and present papers. One way we are accomplishing this is by establishing a Student Committee.

The goals of this Committee include:

1. To recruit new student members.
2. To stimulate and encourage the interest and involvement of undergraduate and graduate students, both national and international, in archaeology.
3. To function as a bond among those interested in American archaeology, both professional and nonprofes-

sional, and to aid in directing their efforts into scientific research.

4. To sponsor workshops to promote professionalism among students, such as workshops on teaching skills, publishing papers, and preparing for job interviews.

5. To sponsor symposia or special sessions on topics of interest to students. This would not only serve as a mechanism for student involvement, but also as a training ground for presenting papers.

6. To encourage the publication of archaeological research.

The formation of this committee provides an opportunity for students to become actively involved in the SAA. We are archaeologists who occupy a distinctive position, that of a student. While this does not require special consideration, it does make for distinctive needs. A functioning Student Committee will ensure that future professionals are an integral part of the Society.

A Committee of Student Affairs is now in the process of reaching the above goals. First, plans for a Publications Workshop for the '91 SAA Annual Meeting are complete. The publications process will be discussed by distinguished members of the archaeological publishing community. Look for information on the workshop in a future issue of the *Bulletin*.

The Student Committee is also in the process of working with Jeff Hantman, Chair of the SAA Membership Committee, to increase student membership in the SAA. At this time Paul Takac of SMU is working on several ideas, such as having SAA student representatives on different campuses. Student involvement is required, if this type of strategy is to succeed. Anyone interested in working with Paul, please contact him.

Cassandra Bill and Tomas Gallareta of Tulane University are working as our Canadian and Central American liaisons, respectively. They are in the process of writing several letters to universities asking for support and ideas, as well as student involvement. Through them, information on the Committee's goals and functions will be passed along to students. We are still looking for a South American liaison, ideally a student from one of the countries in South America who is interested in similar goals. Anyone who might be interested, please contact Rachel Hamilton at Tulane University.

This is the first of many student columns which will appear in the *Bulletin*. In the future we hope to discuss such topics as the goals of the Committee, grant information, annual meeting workshops and round-table discussions, and fieldwork opportunities. However, we cannot succeed unless we have your input. If you have ideas or information concerning the above, please contact Charles Houck, column editor, or Rachel Hamilton, at: Anthropology Department, Tulane University, New Orleans, LA 70118.





## It's New Orleans in '91

The city of jazz, Mardi Gras, and Creole cooking is once again beckoning SAA members to succumb to her charms. The trolley cars still run and the city maintains its *joie de vivre*.

But what SAA member would even think about going to New Orleans without the anticipation of being professionally challenged and refreshed? Program Chair Tim Kohler follows with some perspectives on what's in store. In the meantime, mark the dates—**April 23-28**—and make your plans to attend.

### Volunteers for New Orleans

Volunteers are needed in New Orleans for the Annual Meeting to help staff the registration desk, the message and information center, the membership desk, and to serve as room monitors during the presentation of papers.

As an incentive, the Society offers free membership for one year, free meeting registration, credits toward the purchase of publications, and \$3.00 for each session worked toward lunch or parking expenses. Volunteers work only a half day, each day, which leaves the other half of the day to attend sessions. Prior to the meeting, the SAA will contact all who volunteer to determine the hours they wish to work and their preference for the type of service.

To volunteer, please write to Jerome A. Miller, SAA, 808 17th Street NW, Suite 200, Washington, DC 20006.

### Special Meeting Requests

The SAA Executive Office is responsible for making arrangements at the Annual Meeting for meetings of related organizations, and for all other events not related to the scientific program.

Requests for such meeting space should, therefore, be made in writing to the Executive Office as soon as possible—in any case no later

than December 15. Please include the title of the event; name of the sponsoring group; type of event (e.g. business meeting, board meeting, etc.); name, address, and phone number of the organizer; preferred day, date, and hour, with alternates; and any special instructions.

Space will be assigned on the basis of availability, with first priority given to Society events.

### Annual Placement Service

The Society invites employers with positions open, and applicants seeking employment, to take advantage of the Placement Service operated at the Annual Meeting.

"Position Open" listings are posted on bulletin boards in the Placement Center. If an applicant is interested in pursuing one of the open positions, the applicant requests an interview by filing a message to the prospective employer at the Placement Center's Message Desk.

Likewise, a directory of registered applicants is made available to employers. If an employer finds an applicant who interests her or him, the employer can leave a message for the applicant at the Placement Center's Message Desk. The employer may then reserve times for interviews in the room set aside for this purpose.

This match-making service is made available by SAA to its members at no charge. Information and preregistration forms are available from SAA's Executive Offices, 808 17th Street NW, Suite 200, Washington DC 20006. Please specify whether you are an applicant or an employer so we can send the proper form.

### SAA Preliminary Program

Anyone wishing to receive the 1991 Annual Meeting preliminary program First Class should send a self-addressed stamped 9 x 12 envelope to the SAA office, with U.S. postage as follows: U.S. and Mexico: \$0.65; Canada: \$0.74; Other Countries: \$2.64.

## Whither the Annual Meeting? Results of a Questionnaire

Timothy A. Kohler and  
Edgar K. Huber,  
Washington State University

Two hundred and eighty-three people returned the questionnaire entitled *Future Directions for the Annual Meeting* distributed in Las Vegas. Two hundred of these were regular members, with 58 of the questionnaires from student members. Roughly half of the respondents reported having given a paper, or chaired or organized a session at the Las Vegas meetings.

Respondents were asked to rank six strategies for coping with future growth of annual meetings. As listed on the questionnaire [with number of non-tied first ranks received], these were: 1) Add more concurrent sessions to accommodate more oral presentations and attempt to retain as high an acceptance rate as possible for all kinds of presentations [45]; 2) Add another day to allow more papers to be presented, without increasing the number of concurrent oral sessions [22]; 3) Encourage poster sessions as a means of limiting the number of concurrent oral presentations [50]; 4) Limit contributed papers to 15 minutes, but retain 20-minute lengths for symposium papers [31]; 5) Limit papers in symposia and contributed papers to 15 minutes [50]; 6) Be more selective in review of proposals for all kinds of oral presentations, even though this will result in a higher rejection rate [29].

Overall, encouraging poster sessions received the highest mean rank (2.95), followed closely by reducing contributed papers to 15 minutes (3.03), or reducing both contributed and symposium papers to 15 minutes (3.17). Somewhat unpopular were the alternatives of adding more concurrent sessions (3.58) or increasing selectivity (3.86), while the least-favored alternative was to add another day to the meetings (4.38).

Roughly half of the respondents also provided written comments on the following considerations:



**POSTER SESSIONS.** Poster sessions provoked the most discussion, and respondents were overwhelmingly in favor of them. Several commented that, after overcoming initial misgivings, they found posters to provide a greater degree of interaction and discussion than oral papers. Those who favored poster sessions also provided suggestions for improving them. These ranged from instituting an awards program for the best posters, to providing more "user-friendly" equipment and services, and to improving poster presentation guidelines and organization. Some also suggested that poster sessions be extended to full days, and encouraged the organization of poster symposia.

Several respondents expressed varying degrees of dissatisfaction with posters. Some of these negative comments suggested that posters should be encouraged and continued, but only with the proviso that something be done to change the perception that they are "second-rate." Until poster sessions are viewed differently, there is a stigma attached to such presentations that must be dealt with.

**ANNUAL MEETING SETTING.** After poster sessions, the most popular subject for comment concerned dissatisfaction with the choice of Las Vegas for the 1990 meetings ("Never at a casino again") and the facilities ("No place to sit and converse outside meeting rooms"). The consensus was that the casino atmosphere, especially when coupled with limited facilities for casual gathering in lobbies and no easy access to conveniences, was an inappropriate setting for our annual meeting.

**SESSION ORGANIZATION AND SCHEDULING.** Many of the respondents acknowledged that some degree of scheduling conflict is unavoidable, but asked that concurrent scheduling of related topics or geographic regions be minimized. One respondent suggested that greater geographical diversity is desirable, while several suggested that sessions be limited to Americanist topics. Finally, several comments were received suggesting that the plenary sessions be

scheduled in the evenings to avoid concurrent session conflicts and enhance attendance.

**P R E S E N T A T I O N GUIDELINES.** This topic encompasses several areas of concern, ranging from the failure of scheduled presenters to appear to length of papers, and to limitations on the number of abstract listings an individual should be allowed. The majority of these comments favor a strictly enforced time limit for presentations. A nearly equal number expressed great irritation with "no-show" speakers, suggesting that such individuals be subject to penalties, most-mentioned was a denial of presentation rights for specified periods. Others suggested reducing all presentations to 10 minutes, or symposium papers to 15 minutes, or offering a 15-minute option to presenters of contributed papers.

**PRESENTATION QUALITY.** Several comments and suggestions were received regarding the quality of papers. The majority of these expressed concern over the perceived poor organization, graphics, and presentation of papers. Suggestions generally favored the publication of explicit abstract, presentation, and poster guidelines as a possible remedy. One respondent pointedly remarked that the SAA is plagued by too many abstracts that clearly state no research has been done before abstract submission, or suggest that ideas are not completely thought through. The approach to paper submission can be academically dishonest and the resulting papers are often disorganized, uninformative, and unprofessional.

**MEETING LENGTH.** Comments concerning the length of the annual meeting fell in favor of increasing its length by adding sessions, although several members expressed the opinion that the meetings were already too long. Of those willing to add sessions, the addition of evening or Wednesday sessions, or making Sunday a full day were equally favored. Of those remarking that the meeting was already too long, a few suggested eliminating Sunday sessions altogether. Still others noted that staying over Saturday nights tends to reduce airfares.

**ANNUAL MEETING ORGANIZATION.** Many respondents suggested improvements in the organization and available services of the annual meeting. These requests were wide-ranging: A general assembly with a keynote speaker; professional recording of selected sessions and sale of the transcripts or tapes; provision of day-care services; reduction in registration fees for students; extension of exhibit and message service hours; addition of presenter addresses to the abstracts; and greater control of book room exhibitions, so the jewelry lady doesn't show up again.

**FIELD TRIPS.** Several comments regarding the field trips were received. All were favorable and urged continuation of this practice. Some suggested that in the interest of reducing scheduling conflicts, field trips be offered one day prior to the official start of the annual meeting.

**CONCLUSIONS.** Anyone organizing an annual meeting and hoping to please everyone is in a tight spot. However, a fair degree of support can be found for fostering growth in poster sessions, as long as that growth is not forced, and for keeping the meetings at roughly their present shape (in terms of number of concurrent oral sessions) and length. Apparently many members prefer to retain this current structure by way of growth in poster sessions, or (less enthusiastically) by cutting length of papers, rather than by increasing selectivity at the stage of abstract review. A vocal minority suggests more selectivity. A few changes in place for the '91 meetings address some of these concerns, including the addition of a checkbox to indicate a willingness to present a poster, various attempts to increase interest in presenting posters, and a limit of three roles per participant.

Obviously, however, the organization of the '91 meetings will be determined in large part by the number and type of abstracts you submit. If you are among the many who favored poster sessions, we hope that you are preparing a poster paper for New Orleans. And we offer a sincere "thanks" to the many members who took the time to fill out this questionnaire.



## ONE STEP BACKWARD, ONE STEP FORWARD: PROSECUTING LOOTERS OF ARCHAEOLOGICAL SITES

Cheryl Ann Munson, Marjorie M. Jones,  
and David Pollack

Successful prosecution of looters is one important way to deter the destruction of archaeological sites. Recent cases of looting in Kentucky and Indiana exemplify both discouraging and encouraging legal efforts in this regard.

In Kentucky, the much publicized case of the 1987-1988 looting at the Slack Farm site (see *SAA Bulletin* Vol. 6, No. 6) involved the indictment of ten men on charges of desecration of a venerated object. The men allegedly each paid \$1,000 to the landowner for digging rights. Because the looters disturbed human graves, the law provided for Class A misdemeanor penalties. Archaeologists and the Kentucky Heritage Council assisted the state police in bringing the indictment, and then conducted extensive field and laboratory investigations in the Spring of 1988 to assist the prosecution and to recover information about the site. The investigations documented the looters' disturbance of over 650 burials in the protohistoric Mississippian village. While the investigations were in progress, the Kentucky legislature increased the penalty for looting burials to a felony.

In March, 1990, the newly elected county prosecutor had taken no action toward trial. The district court judge ordered the dismissal of charges with the stipulation that they could be reinstated against any individual if he commits a similar offense within one year. The artifacts obtained by the looters were not recovered.

In Indiana, the U.S. Attorney announced in June, 1990 that a grand jury had indicted a man from Illinois on charges of transporting artifacts in interstate commerce, in violation of the Archaeological Resources Protection Act (ARPA). The artifacts had been looted in 1988 from the GE Mound in southern Indiana. The site is located about ten miles from the Slack Farm site on land owned by General Electric Corporation. The looting took place after the site had been disturbed during soil borrow associated with a state highway construction project.

Archaeologists received reports of looting of a mound in the Summer and Autumn of 1988. Curtis Tomak, archaeologist for the Indiana Department of Highways, conducted fieldwork that verified that the site was Hopewell in affiliation and had been damaged. As with Slack Farm, the widely publicized looting of the GE Mound helped spur Indiana's 1989 legislature to action. A law that protects burials and archaeological sites from looting was made immediately effective under an emergency provision (see *SAA Bulletin* Vol. 7, No. 6).

Archaeologists and native Americans who have worked together in Indiana on the issue of archaeological site protection encouraged investigation of the GE Mound looting. In particular, Raymond White, Tribal Chairman of the Miami Nation of Indiana, asked Sen. Richard Lugar for the assistance of federal authorities. GE Plastics, of Mt.

Vernon, Indiana, cooperated with the investigation and took steps to protect the site from further damage.

As a result of investigations by county, state, and federal law enforcement officials, the FBI recovered over 2,000 Hopewell artifacts. A dozen people agreed to return items that they had taken from the site. Prof. Emeritus James Kellar, Indiana University, cataloged and identified the artifacts and provided expert comment on the significance and preservation of GE Mound and the recovered artifacts.

The U.S. Attorney recommended that additional charges of criminal trespass be brought at the local level against at least one other person who reportedly recruited others to dig at GE Mound. The county prosecutor recently appointed a special prosecutor for this case.

Section 470ee(c) of ARPA makes it a federal offense to transport artifacts across state lines that were obtained in violation of local or state law. Though prosecution of looters under this section has not previously been attempted, the provision applies not only to archaeological resources on public lands, but to those in private ownership, like GE Mound. The GE Mound case could set important legal precedents at both the national and state levels.

U.S. Department of Justice attorneys Larry A. Mackey and Scott C. Newman will try the GE Mound looting case in the U.S. District Court of Southern Indiana, if they are successful in opposing the defendant's motion to dismiss the indictment. The defendant has claimed that ARPA is: 1) unconstitutionally vague and overbroad, and 2) was not intended to cover interstate trafficking in artifacts that were removed illegally from privately owned land. ARPA has previously been upheld by a U.S. Court of Appeals against a constitutional challenge, but not against a challenge on the provision protecting archaeological resources on private land.

### REPATRIATION BILL PASSES CONGRESS

Keith Kintigh, SAA Task Force on Reburial and Repatriation

*As the Bulletin goes to press, a repatriation bill supported by the SAA passed the House, and was amended and passed by the Senate. H.R. 5237 will become law with House approval of the amended bill and Presidential signature, both of which are expected. H.R. 5237 incorporates compromise language worked out through negotiations among national Indian organizations, the American Association of Museums, the SAA, and congressional staff.*

*A letter to Representative Udall signed by the SAA and representatives of the Association on American Indian Affairs, the Native American Rights Fund, and the National Congress of American Indians states: "Because of its broad-based support, we hope and believe that this bill will create a workable framework fostering sensitivity and cooperation in achieving the appropriate repatriation of Native American human remains and cultural objects."*



## A PERSONAL PERSPECTIVE ON THE COMPUTERIZATION OF ARCHAEOLOGY

Harold L. Dibble, University of Pennsylvania

At a cocktail party recently, one of my colleagues from the history department told me about one significant impact that the development of the printing press had on the European scholarly community: that an entire generation's worth of original research was lost as all efforts were devoted to the transfer of the corpus of handwritten literature to printed versions. Hearing that made me think of all of the archaeologists I know (including myself) who spend major portions of their research time writing or learning computer programs and converting old data to a computerized format. Clearly computers have great potential for archaeology, but we should be careful not to waste too much effort or financial resources in realizing that potential.

What can we do to minimize such risks? I think that one important step has been taken with the emphasis of this issue of the SAA *Bulletin* on software reviews. Such reviews, written by archaeologists, are the best way to disseminate knowledge about commercial products that are useful for archaeologists. I also agree that it is important that they be published in the *Bulletin* instead of in more specialized journals that deal specifically with archaeological computer applications. Such reviews should be directed toward an audience of non-specialists. Future reviews should not overlook new hardware that is particularly useful for archaeologists, from portable computers that are durable enough for field conditions to digital calipers and laser theodolites. It would also be useful to have overviews written on specific topics, such as international travel with computers, use of computers at field sites, communication and transfers between different computers, etc.

There is a serious need to publish applications that are developed by other archaeologists. I constantly hear rumors about truly exciting new programs or hardware systems, but I rarely see them published in a useful format. Part of this problem is the lack of relevant journal space, a situation that was made even worse with the recent demise of *Advances in Computer Archaeology*. But part of the problem is that when they are published, such articles tend to be either "brag-rags" with little interest to a larger audience or long advertisements for programs that are available for purchase from the author.

One thing that we could use, then, is a set of editorial standards covering the effectiveness of such programs and their documentation. Among these is the requirement that such publications do more than show that a given application can be developed. A review should also explain the advantages and disadvantages of software, potential applications for current archaeological problems, and, like all scientific literature, should discuss how a program was developed so that other archaeologists can reproduce it. All of this will help to avoid too much independent invention of the same wheel.

Where is the field going in terms of computers? I tend to see four major classes of computer applications in archaeology currently under development: teaching, data acquisition and management, analysis, and presentation. Of these, teaching applications have received the least attention, both in terms of the teaching of archaeology as a discipline (but see the review of *Fugawiland* in the upcoming January issue of the *Bulletin*) and the teaching of computer applications to archaeology students. The latter should probably be accomplished by the integration of computer methods in archaeological field schools.

Data analysis and presentation applications are widely available and their market is large. There are many good, general statistical packages for quantitative analysis, but there is still a real need for specialized graphics applications for more visual, non-quantitative explorations of spatial distributions of artifacts or sites, for example. Word processors and presentation graphics programs (such as *Harvard Graphics* reviewed in this issue), are ubiquitous because of their business applications, and represent a significant breakthrough for archaeological reporting and documentation. One potential archaeological application still to be refined, however, is the use of video digitization to speed up the process of artifact illustration.

The acquisition and management of archaeological data represents a very specialized concern that is unlikely to be addressed satisfactorily by applications developed for other markets, in part because there are so many different kinds of data of interest to archaeologists. While many standard, or traditional, sorts of measurements and observations can be entered manually into commercial database programs, the connection of specialized data recording instruments (such as electronic calipers, scales, and theodolites) usually requires more specialized programs. Digitization of entire artifacts, which is made possible by computers, offers significant potential for the analysis of formal variability—a traditional concern in archaeological research. Two-dimensional digitizers, such as digitizing tablets, scanners, and video boards are already available, and efficient and economical three-dimensional digitizers are not far in the future.

In terms of data management, the biggest problem for archaeologists is the need to integrate these many different kinds of data, which range from single-value observations and measurements, to spatial distributions, to video images. While "multi-media" systems are receiving much attention in the computer industry, they are more suitable for presentations than for analysis. Ultimately, computerized databases offer the potential of both long-term archiving and sharing of basic data in formats that are much more flexible than are traditional site reports.

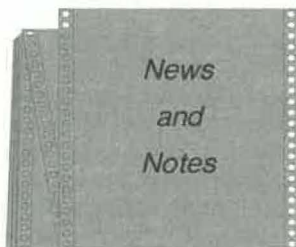
While many of our needs can be satisfied with commercial software, it is clear that at least some specialized computer applications must be developed for archaeology. These new applications, I believe, require a new academic specialization in computer archaeology. The



successful integration of the many different kinds of hardware and software necessary to develop a specialized archaeological application demands more background and experience in computers than most archaeologists have. The computer industry itself changes so rapidly that it is almost impossible for a non-specialist to stay current. Even after the development of an application, its successful implementation in a field setting, for example, demands more time than is available to most project directors. Thus, we need computer specialists at both research and technical levels. But, it is essential that these computer specialists have significant experience as archaeologists in order to develop systems that are truly

useful for archaeological research. This raises many issues about training requirements and professional standards, because it is too easy for a potential computer consultant to substitute computer jargon for a real understanding of archaeological problems and their solutions. As always, there is also the issue of the long-term employment of these specialists.

For me, the potential of computers for archaeology justifies the investment of both time and money in new applications. Computerization will undoubtedly change the way in which archaeology is done. Fortunately, the change is already underway and so it will take much less than a generation's time to realize much of that potential.



**ROCKEFELLER FOUNDATION FELLOWSHIPS IN THE HUMANITIES** are offered as year-long or half-year residencies for humanities scholars at selected institutions, ranging from universities and research libraries to museums. The residencies are intended to make out-

standing resources accessible to individual scholars, to promote exchange within and between disciplines, and to strengthen fields in the humanities. For more information on host institutions, application procedures, etc., please contact: Lynn A. Szwaja, Research Associate, 1133 Avenue of the Americas, New York, NY 10036.

**THE CENTER FOR THE ADVANCED STUDY OF THE AMERICAS**, assisted by a grant from the National Endowment for the Humanities, announces an inaugural program of two postdoctoral fellowships of 4 to 6 months in term, in all fields of colonial Latin American studies requiring research in the archival resources of Seville, Spain. Interdisciplinary projects that transcend traditional specialties are especially welcome. Applicants must hold the Ph.D. and be a U.S. citizen or have resided in the U.S. for at least three years. The application deadline is Jan 1, 1991. For applications contact: Center for the Advanced Study of the Americas, 322 Dulles Hall, 230 W. 17th Ave, Columbus OH 43210-1367.

**NATIONAL ENDOWMENT FOR THE HUMANITIES** supports archaeological projects that promise to strengthen understanding of history and culture. The endowment is particularly interested in projects that focus on preparing excavation results for scholarly and popular publications. Support is also available for both foreign and American fieldwork, survey, excavation, material analysis, laboratory research, artifact preservation, and field reports. Funding for major excavations require a preliminary survey. NEH will support excavation and survey projects with outright funds up to \$15,000 per year combined with federal matching funds not exceeding 50 percent of the total project costs. For more information contact Richard Ekman, Director, Division of Research Programs, National Endowment for the Humanities, Washington, D.C. 20506.

**TRAVEL GRANT PROGRAM TO THE XIII INQUA CONGRESS, BEIJING, AUG. 1991.** The U.S. National Committee for the International Union for Quaternary Research (USNC/INQUA) is expecting to obtain funding for its travel grant program for the XIII INQUA Congress in Beijing, China (Aug 2-9, 1991) and related to pre- and post-congress field excursions. This travel grant program is cosponsored by the American Geophysical Union. With the cooperation of the American Quaternary Association (AMQUA), the USNC/INQUA seeks to ensure appropriate U.S. representation by providing 20 to 30 travel grants to enable Quaternary scientists residing in the U.S. (regardless of citizenship) to participate in the activities of the congress. Travel grants, which will cover only a portion of a participant's expenses (equivalent to airfare), are to be

awarded competitively, primarily on the evaluation of papers submitted for presentation at the congress, especially as they relate to the congress theme "Global Environmental Changes and their Relation with Anthropogenic Activities." The Awards Subcommittee will also give consideration to those scholars judged to benefit most by participation at this international event. Travel Grant deadline is Dec 1, 1990. For applications contact: Pembroke J. Hart, USNC/INQUA-HA-460, National Academy of Sciences, 2101 Constitution Ave, NW, Washington DC 20418; (202) 334-3368.

**PROPOSALS SOUGHT.** Garland Publishing announces a new monograph series entitled **Garland Research Guides to Ancient Civilizations**. The series will publish guides to the important literature dealing with a single culture area, archaeological culture, or significant issues relating to ancient civilizations of the Old and New World. Each volume will have two parts: A critical introductory essay and a topically arranged annotated listing of the important relevant literature. For more information or to submit proposals contact: John M. Weeks, Series Editor, 5 Wilson Library, U of Minnesota, Minneapolis, MN 55455; (612) 624-5860.

**NATIONAL PARK SERVICE, DENVER SERVICE CENTER** is taking applications for a 1 to 4 year temporary archaeology position in Rockville, MD. For information contact: National Park Service, Denver Service Center, Eastern Team, Applied Archaeology Center, Rockville MD.

**SOUTHERN ILLINOIS UNIVERSITY'S OUTSTANDING DISSERTATION AWARD FOR 1990** was awarded to Bruce Masse for his dissertation entitled: *The Archaeology and Ecology of Fishing in the Belau Islands, Micronesia*.

**CALL FOR NOMINATIONS FOR THE J. I. STALEY PRIZE.** Nominations are being accepted for the 1990 J. I. Staley Book Award for excellence in Anthropology. Applicants must be nominated by their department or degree-granting program, and only one nominee will be considered from each. Nominees must have completed all requirements except for the dissertation. A brief nomination letter should be sent to Resident Scholar Program, School of American Research, P.O. Box 2188, Santa Fe, New Mexico 87504-2188.

**CALL FOR PAPERS - "FROM BONES TO BEHAVIOR" CONFERENCE** will be held April 12-13 at Southern Illinois University at Carbondale. This year's conference focuses on ethnoarchaeological and experimental contributions to the interpretation of faunal remains. Contributions are sought that incorporate faunal data in the interpretation of site function, hunting strategy, meat trade, meat sharing, social relationships, and distinctions between natural and cultural agents that work to accumulate, disperse, or destroy bone. Papers should stand as examples of how ethnoarchaeological and experimental approaches can yield information of practical use to archaeologists. The deadline for abstracts is December 14, 1990. Authors whose papers have been accepted will be notified in January. A volume of selected conference papers will be published. For more information contact Jean Hudson, Center for Archaeological Investigations, Southern Illinois University, Carbondale, IL 62901, or phone 618-453-5039, or bitnet: GE1771@SIUCVMB.

*Announcements continue on page 15 . . .*



## SPSS REVIEW

Mark Aldenderfer, University of California  
at Santa Barbara

Quantitative and statistical analyses are a fact of life in modern archaeological research, and happily, many of our statistical needs can be met by the wide range of microcomputer-based statistical packages on the market today. Like our individual computing needs, however, these packages are highly varied in the range and power of their contents. Not all users need complex multivariate methods, while others could not live without them.

This series of reviews is designed to provide the archaeological community with an overview of just what packages are available and what they can do. While there will not be space for a full-scale review of each product, I will discuss the following for each: the basic contents, hardware requirements, data handling, input and output, the "look and feel," and finally, some thoughts on what special advantages the product might have for archaeological applications.

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### *SPSS/PC+ is still the Rolls-Royce of statistical packages, and sophisticated power users should give it a careful look.*

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Most of the archaeologists of the 1960s and 70s who performed statistical analyses on the mainframe computers of that era probably remember SPSS. Back then, I saw SPSS as the Rolls-Royce of statistical packages, a suite of programs of considerable power and flexibility. My original assessment of SPSS, after having recently examined a number of MS-DOS and Macintosh statistical packages, and the most recent release of the package—SPSS/PC+, V3.0 and V3.1 for my own computing needs, has not changed. [Editor's note: SPSS announced the release of version 4.0 as this review went to press.] It is one of the most powerful statistical packages on the microcomputer market today, offering a wide variety of descriptive, inferential, and multivariate statistical procedures. However, this power comes with a price: Since the program is complex and diverse, it takes some real effort to learn its command structure and become comfortable with its power. Given your particular statistical needs, is it the right package for you?

Like most complex statistical packages, SPSS comes in a series of modules that are used as necessary. The more general modules include the Universal Set, advanced statistics, time-series methods, and a series of data entry, mapping, and graphics enhancements. The Universal Set includes all of the basic statistics such as data transformation and manipulations, cross-tabulations, basic descriptive statistics, correlation, t-tests, one-way Anova, non-parametric tests, and simple regression analysis. It also includes the utilities needed to install and run any part of the package. The advanced statistics module includes discriminant analysis, factor analysis, cluster analysis, two different types of MANOVA, categorical-data modeling methods such as hierarchical and non-hierarchical log-linear analysis and logistic regression, non-linear regression modeling, and reliability analysis.

The time-series module (TRENDS) contains a number of powerful ARIMA methods and their variants. The graphics and entry modules are discussed below.

SPSS/PC+ has significant hardware requirements. SPSS, Inc. warrants that this package will run under MS-DOS 2.0 or greater on any IBM PC PC/XT, PC/AT, PS/2 or any "closely IBM-compatible machines". You should note that SPSS recommends you call them about specific non-IBM hardware configurations. I used a Compaq 386/20 to review the software, so it is likely that most major IBM clones will support the package. The Universal Set requires a minimum of 512k of RAM, and the full 640k if any options are to be used, such as some of the graphics support. A hard disk is also required: the Universal set needs 4.5 MB of disk space, and the entire, installed system needs almost 14 MB. SPSS strongly recommends that you have plenty of open disk space (or a removable drive option like a Bernoulli box) for mapping analyses and very large data sets. If you have extended memory, the package will use up to 64k of it automatically. It is possible to use RAM disks to advantage, especially for large data sets. While math co-processors are not necessary, they are strongly encouraged.

Options for display hardware using the graphics and mapping modules include the IBM EGA, CGA, or Hercules cards.

There are a number of routes to producing different kinds of graphic output. Most of the procedures in all three of the major modules can produce simple plots, which look much like the old-style line printer plots we used to get with the mainframe versions of SPSS. More sophisticated and stylish plots can be generated through a memory-resident program, *Graph-in-the-Box* by New England Software, Inc., that is bundled with the package. This tool allows you to select columns, variables, and other aspects of output, and make quick charts. Users interested in more sophisticated publication-quality graphics have the option of purchasing SPSS/PC+ Graphics (this includes Microsoft CHART), SPSS/PC+ Harvard Graphics, and SPSS/PC+ Mapping, which includes Ashton-Tate's Map Master software.

Data entry options are similarly varied. The Universal Set has its own data entry, editing, and file handling system that will also translate spreadsheet files from Lotus 1-2-3, Symphony, SYLK format files, Multiplan files, and files from dBASE II, III, III+. It can also import ASCII files written under a set of five reasonable constraints. Users who expect to have more demanding data entry and handling problems may purchase SPSS Data Entry II, a powerful editor that has many useful features, like spreadsheet entry format, that are standard on other statistical packages like Systat.

The "look-and feel" of SPSS/PC+ betrays its mainframe roots. Although there is a sophisticated context-sensitive on-line help procedure, as well as on-line glossary, the package demands that the user know a good deal about statistics. And while the program is menu-driven, allowing some flexibility in moving back and forth between major options, it still has a mainframe-oriented "command line" structure.

Who should use SPSS/PC+? If you need power, range, and the ability to move back and forth between both



simple and multivariate statistical methods with relative ease, and are comfortable with command line structures, you should consider *SPSS/PC+*. It is not, though, a package for beginners or those archaeologists whose statistical needs are undemanding. The learning curve is steep, and while the manuals of the package are generally well-written and exhaustive, they still assume that the user has a fair degree of statistical sophistication. Most casual users of statistics in archaeology would be better served by other packages that offer the same range of basics in an easier-to-use format, like *STATA*, *JMP*, or *DATA DESK*. Also, archaeologists who frequently use graphics-intensive EDA methods will be disappointed with this package because it is just not oriented toward exploratory analyses.

For special needs or problems, *SPSS/PC+* has some distinct advantages for the archaeologist. It is one of the few packages on the market that has a well-designed log-linear modeling feature, one of the best. It also has the best range of clustering methods of any microcomputer package, including the much-respected, but little-found, Ward's method. It even has a k-means type procedure (Anderberg's centroid sorting).

*SPSS/PC+* is still the Rolls-Royce of statistical packages, and sophisticated power users should give it a careful look. If you need some of its special features, though, encourage your campus microcomputer facility to get a site license, and use it only when you need it.

## CD ROM FOR ARCHAEOLOGY

Fred Wendorf, Robert V. Kemper, and David Crass  
Southern Methodist University

The amount of archaeology done in the United States has greatly increased since the passage of the Moss-Bennett bill in the late 1970s, but most of the reports are printed on non-acid free paper and have extremely limited distributions. Usually, the office of the State Historic Preservation Officer is the only place where all or most of the reports can be found, and the quantity of data—estimated at some 30 million pages—is so great that even then it is not accessible. This problem is now being approached through the National Archaeological Data Base, but the NADB does not provide the full text of archaeological reports, only a brief description of their contents.

Developments in microcomputer technology in the last five years have provided a possible answer. In particular, CD ROM (Compact Disc—Read Only Memory) technology seems to offer a cost-effective means by which archaeologists in both academic and field settings can gain access to the literature from the CRM program. In order to explore this possibility, we conducted a "Pilot Study to Investigate the feasibility of CD ROM Technology for Archaeological Reports" in 1989. The study was funded through a contract with the Texas State Historical Commission and the National Park Service (U.S. Department of Interior). Additional assistance was given by the Tandy Corporation and by the DeGolyer Library at Southern Methodist University. We note that the opinions ex-

pressed here are our own and do not necessarily reflect those of the agencies involved in the project.

CD ROM is similar to the plastic disk used for audio CDs. A single disk contains up to 550 megabytes (equivalent to 275,000 printed text pages, or 6000 full-page images) of digital information readable by a laser device. Generating the master disk is expensive, but copies can be mass-produced cheaply. CD ROM players can be connected to microcomputers and accessed like a standard disk-drive.

There are several choices to be made concerning CD ROM in order to achieve an acceptable archival system for archaeology. The major choices are as follows:

Data Conversion: Image-based scanning versus OCR (optical character recognition) text combined with image technologies; Data Display: Display of scanned documents to emulate the original page format versus an independent arrangement of text and images (tied together through a system of "tags"); Data Retrieval: Retrieval of stored documents by a "keyword" coding system versus a full-text retrieval system; Data Manipulation: Read-only access to the stored documents versus the ability to manipulate the original data (text and/or images).

We investigated the process of converting printed reports into electronic formats suitable for CD ROM, and tested several combinations of hardware and software to determine the costs and benefits of text-based and image-based systems. Text-based systems dependent on OCR scanning initially appeared more expensive than image-based systems. Archaeological reports have many illustrations and a specialized terminology not recognized by standard lexicons, which meant considerable labor costs to generate both clean texts and graphics. An image-based approach could do this less expensively, but the detailed full-text search and retrieval capability would be replaced by keyword indexing and similar techniques, and the actual CD ROM production (mastering and replication) would cost considerably more. (For example, 1,000,000 image-based pages might require 200 disks, but 1,000,000 text-based pages would fit on four discs.) An OCR-based approach may therefore be more cost-effective than an image approach, as well as providing greater indexing and search-retrieval capabilities. Since CD ROM optical disks are permanently recorded and unalterable, any updating or addition of new files requires new disks.

The pilot study led us to conclude that, given a sufficiently large budget and enough subscribers, the estimated 30,000,000 pages of public domain archaeological reports in the United States could be converted to CD ROM within a few years. (However, massive funding for this purpose is less likely than a small initial investment, which could be the "seed" for creating the first CD ROMs in the series.)

Future archaeological reports should be available in a standard electronic format so that they can be easily included in the CD ROM series. Since most archaeological reports are now written with microcomputers, a requirement that a diskette version be submitted to the State Historical Preservation Office archives should not be onerous.



# BIBLIOGRAPHIC DATABASES

## PART III: Pro-Cite

Michael Adler and Alex Barker  
University of Michigan

The developers (Personal Bibliographic Software, P.O. Box 4250, Ann Arbor, MI 48106) of this program adopted a different philosophy. You can compile bibliographies from a manuscript, or attach notes and abstracts to bibliographic references, but *Pro-Cite* (version 1.41) assumes you have a higher purpose in mind. It is designed to let you sort, retrieve, index, and analyze a working research bibliography. *Pro-Cite* comes with twenty predefined workforms for everything from chapters in books to personal letters, from maps to musical scores. Long and short forms are available for books and journal entries. Six additional workforms can be customized by the user. Workforms can be changed on the fly with a minimum of keystrokes. Fields can contain an unlimited number of characters, but the maximum practical size for a given record is 16,000 characters (about ten pages). Bibliographies can be up to 8.2 megabytes in size in the current version, although the next release is expected to lift this restriction. There is no limit on the number of keywords attached to a record.

*Pro-Cite* offers powerful features for searching and sorting bibliographic records, including a full set of Boolean operators, relational operators, and user-customizable stopword lists. Boolean operators (and, or, not) let you expand or limit searches, and by nesting them search parameters can be quite complex. Relational operators let you specify an exact value in a search, or specify only records with higher or lower values than that specified. Stopword lists let you ignore articles (the, an, a) in searches and sorts. *Pro-Cite* default settings ignore English and French articles, but this can be switched off or changed to suit your own needs. *Pro-Cite* also has a sophisticated way of dealing with dates, so that they're stored and sorted consistently regardless of what format was used to enter them. Search terms may be given exactly, or truncated using a wildcard symbol.

Creating bibliographies from manuscripts is a bit more straightforward than with the *Notebook II+* (NB II+, which includes *Notebook II*, *Bibliography*, and *nbCitation*) bibliography program. If the references are in standard in-line format [e.g., (Simpson 1986), (Goland 1989:124) or some variant], *Pro-Cite* will match the references without any special delimiters or flags in the manuscript. The manuscript must be text-only, however, which may require either printing copy to disk or saving a copy with formatting suppressed. If you cite several works by the same author in sequence (Vaida 1979, 1980, 1983), *Pro-Cite* will only find the first, unless the author's name is included before each date.

Bibliographic formats are defined by punctuation files, which contain both punctuation and formatting conventions for most of the major journals. *Pro-Cite* also supports conventions for the major European scientific journals, and additional punctuation files are made available to registered users as they are added. Custom formats can be created, although archaeological users should be aware that *Pro-Cite* won't properly format the double hanging indents used by *American Anthropologist* and *American Antiquity*.

One of the nicest features of *Pro-Cite* is that it runs on either Macintosh or IBM systems, and databases can be transferred between versions—a real boon if your department or household includes both of the computer moieties. It can also import and export files from other DOS programs. For IBM systems, the program requires 2 floppy disks or 1 floppy and a hard disk, DOS 2+, and 320K.

Cost is \$395 and site licenses are available. *Pro-Cite* has an extensive manual, and offers two different help files, one on the main program disk (for floppy systems), and a larger help file on a secondary disk (for hard disk systems). Popup menus, menu bars, and options screens simplify use, though keyboard commands speed up operations once you're familiar with the package. Setup is simple, and the default configuration works fine on laptops and monochrome systems. *Pro-Cite* is expensive, and unless you're affiliated with an institution holding a site license, the price alone may make it the wrong choice for many tasks. If all you really need is a tool to help put bibliographies at the end of papers, *Pro-Cite* is probably too much for too much. But as a bibliographic research tool, it's a standout.

### Bibliography Programs

	NB II+	Pro-Cite	Bib
Version Reviewed	3.02a	1.41	4.1
Disk Drives*	2F/1H	2F/1H	1F/1H
Operating System	DOS 2.1+	DOS 2+	DOS 2+
Memory Required	384K	320K	256K
McIntosh Version?	No	Yes	No
Academic Discounts?	No	No	Yes
Site Licenses?	No	Yes	No
Cost	\$275	\$395	\$50

\* No. of floppies (F) or hard (H) drives



# LOTUS FREELANCE PLUS, HARVARD GRAPHICS, MICROSOFT CHART

Anthony S. Tolonen and Alan P. Sullivan III  
University of Cincinnati

Although not expressly designed for archaeologists, *Lotus Freelance Plus*, *Harvard Graphics*, and *Microsoft Chart* produce the types of graphic illustrations (e.g., pie charts, bar charts, histograms, scattergrams) that archaeologists commonly use. For this review, each package was installed on the 20 megabyte hard disk of an IBM PS/2 (Model 50 Z) equipped with an INTEL math Co-processor (80287-10) and a color display monitor. Output was produced on a Hewlett-Packard 7475A plotter or a Hewlett-Packard LaserJet III printer. Regardless of the purchase price of an individual package, the baseline hardware costs clearly are not insubstantial.

In each menu-driven package, none of which is particularly difficult to master, the user either can tab to the desired command on the command line (and press return) or simply enter the first letter of the command. *Freelance*, however, differs from *Harvard Graphics* and *Chart* because of its "pop-up menu" that allows the user to access instantly a variety of submenus without leaving the chart form by merely tabbing to the desired form section and pressing the space bar. Oddly, *Chart* occasionally failed to recognize its own commands or would do so only after repeated attempts. Operator error was not a factor because the user initiates a command simply by highlighting or entering the first letter of the command name.

All packages employ a "chart form" to guide data input. The form prompts in *Chart* are the easiest to use and the least inflexible because the program is designed for primary data input and chart styles are not geared towards business applications exclusively; *Chart* therefore handles archaeological data well. In contrast, *Harvard Graphics* and *Freelance* are more difficult to use because they are designed for secondary, previously compiled data input. For example, the latter programs will not create histograms from an original data matrix. Rather, you must input both the histogram intervals and the frequency of observations for each interval. It is possible, however, to import data or output from some statistical packages and database programs into *Freelance* and *Harvard Graphics*. If you are already using a particular

statistical or database package, be sure to check on the specific import capabilities of any of these graphics programs.

Substantial differences among the packages emerged when attempts were made to import external files. *Freelance* will import and correctly read unmodified dBase III+ files. *Harvard Graphics* will import and correctly read dBase III+ files only after they have been converted to ASCII or delimited ASCII files. *Chart* will read data directly from as ASCII file, a delimited ASCII file, or a dBase III+ text file.

After data have been imported and the desired figure created, *Freelance* will send the figure file unmodified to either the printer or plotter. *Harvard Graphics*, however, may require the user to alter the figure file if a switch is made from printer to plotter, or vice-versa (*Harvard Graphics* uses two different sets of fill patterns for pie charts or histograms -- one for the printer and one for the plotter). *Chart* has only one output quality, but the files can be sent to either the printer or plotter without alteration. Of the three packages, figures are modified easily with *Freelance* or *Harvard Graphics*; it is difficult, at best, to modify figures with *Chart*.

*Harvard Graphics* includes a program, *Draw Partner*, that permits the user to create an unlimited variety of freehand illustrations. *Freelance*, while not incorporating a program such as *Draw Partner*, still has the capability to create an unlimited variety of freehand illustrations without referencing a data file. *Chart's* freehand capability, in comparison, is extremely limited.

*Freelance* retains a larger symbol library than *Harvard Graphics* [Editors's note: *Harvard Graphics* has expanded its symbol library in a new version (2.3) released in the last month]; symbols are added to a chart by engaging an image import command. *Chart* does not have this capability. *Freelance* and *Harvard Graphics* are also able to create portfolios of charts and present them as "slide shows" (sequential images stored as a file), whereas

*Chart* cannot. In all three programs, previously created figures can be saved and then added to new ones. *Freelance* and *Harvard Graphics* take this capability one step further by saving charts and images as symbols that can be used in other figures.

Given the wide choice of possible chart and illustration types in *Freelance* and *Harvard Graphics*, the computational abilities of *Chart* are less appealing. After all, the purpose of a graphics package is to create high-quality images quickly and easily -- not perform statistical analysis. Armed with either a blank departmental requisition form or our own money, we would not hesitate to spring for the comparatively pricey *Freelance* package.

	LFP	HG	MC
Version Reviewed	3.01	2.13	3.0
Operating System	DOS 2.1	DOS 2+	DOS 2.1
Memory Required	640K	512K	512K
Commands			
Ease of use	Easier	Easy	Easiest
Flexibility	Moderate	Least	Most
Pop-up Menus	Yes	No	No
File Importing			
Unmodified dBase III+	Yes	No	No
ASCII	Yes	Yes	Yes
Delimited ASCII	Yes	Yes	Yes
Text	Yes	Yes	Yes
Image	Easiest	Easy	Difficult
Primary Data Analysis	No	No	Yes
Graphics			
Ease of Modification	Easy	Easy	Difficult
Freehand Option	Yes	Yes	Limited
Symbol Library	Yes	Yes	No
"Slide Show"	Yes	Yes	No
Cost	\$495	\$349	\$275



## positions open

**SOUTHERN ILLINOIS UNIVERSITY AT CARBONDALE**, Center for Archaeological Investigations, Visiting Scholar in Archaeology 1991-1992. The Visiting Scholar organizes, stages,

and edits a proceedings volume on an annual scholarly conference. Topic open. Ph.D. in Anthropology required by beginning of 11-month appointment. Submit letter and five-page conference proposal by March 1, 1991 to: Francis E. Smiley, Chair, Visiting Scholar Committee, Center for Archaeological Investigations, Southern Illinois University at Carbondale, Carbondale, IL 62901-4628. Pre-application contacts encouraged: (618) 453-5032. Bitnet: GA0267@SIUCVMB. Southern Illinois University at Carbondale is an Equal Opportunity Employer. Women and minority applications encouraged.

**UNIVERSITY OF NEBRASKA-LINCOLN**, Department of Anthropology invites applications for a tenure-track position in Archaeology at the Assistant Professor level starting in August, 1991. Requires a Ph.D. Preference will be given to candidates with research interest and experience in the archaeology of the Great Plains or related areas; an excellent record of scholarly achievement; a strong theoretical focus; quantitative skills; and some technical expertise (e.g. lithic or faunal analysis). Will be expected to teach both archaeological field school, publish actively, and share in departmental and college administrative work. Women and minorities are strongly encouraged to apply. Application deadline is January 2, 1991, or until position is filled. Send vita, covering letter, representative publications, and names of three references to: Robert Hitchcock, Chair, Search Committee, Department of Anthropology, University of Nebraska-Lincoln, NE 68588-0368. Affirmative Action/Equal Opportunity Employer.

**BOSTON UNIVERSITY**, Department of Archaeology announces an opening for a North American prehistorian at the Assistant Professor level. The most appropriate candidate will have experience and interest in future, multidisciplinary field research as well as commitment to excellence in teaching. Expertise in an area of archaeological science would be an advantage. Ph.D. required; tenure-track appointment effective September 1, 1991. Send nominations or applications, including a current vita and names of four references to Norman Hammond, Chair, Search Committee, Boston University, Department of Archaeology, 675 Commonwealth Avenue, Boston, MA 02215 by November 30, 1990. EOE/AEE.

**MIAMI UNIVERSITY ART MUSEUM** seeks Pre-Columbian art specialist to write catalogue entries and an essay for a collection of more than 1,000 pieces of sculpture, ceramics, stone, and gold jewelry mainly from El Salvador and West Mexico. Catalogue planned to accompany exhibition in 1992. Ph.D. required. Position dependent on funding. Send letter of interest with curriculum vitae and list of references to Curator of Collections, Miami University Art Museum, Patterson Avenue, Oxford, Ohio 45056. Deadline December 1, 1990.

**OHIO STATE UNIVERSITY**, Department of Anthropology, invites applications for a tenure track position in New World archaeology starting October 1st, 1991. Both junior and senior levels will be considered. The candidate must have the ability to attract outside funding, have an active research program, and be prepared to contribute to the continued development of a program focused upon the Eastern Woodlands of North America. Ph.D., strong publication record, and commitment to teaching required. Salary commensurate with experience. Send vita, letter of application, and names of three references to: William S. Dancey, Search Committee Chair, Department of Anthropology, The Ohio State University, 110 Lord Hall, 124 W. 17th Ave Columbus, OH 43210-1364. To assure consideration, please submit all application materials by February 15, 1991. Ohio State is an equal opportunity affirmative action employer.

## Announcements . . . .

**CALL FOR PAPERS FOR THE 45TH NATIONAL PRESERVATION CONFERENCE** will be held in San Francisco October 16-20, 1991, commemorating the 25th anniversary of the National Historic Preservation Act. The meeting focuses on the historic preservation movement, reviewing achievements, exploring challenges, and charting a course for the future. Sponsored by The National Trust for Historic Preservation, the National Park Service, and the Advisory Council on Historic Preservation. If you are interested in submitting a paper (a 200-250 word abstract is due by December 15, 1990) please call Penny Jones at (202) 673-4039 for more information.

The "ASSAULT ON TIME" video has been released by the Federal Law Enforcement Training Center (FLETC). The video is the result of the anti-looting awareness efforts of several Federal agencies and private organizations. It is intended to be a teaching tool for use as an introduction to archaeological resources protection and is especially effective when shown as part of an organized training program. It also can be used to improve public awareness and, as such, is available in a format suitable for public television broadcasting. For flyers and information regarding the video's release contact: Publication Specialist, Archaeological Assistance Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127.

**THE PEABODY MUSEUM** at Phillips Academy, Andover, Massachusetts, has named archaeologist Dr. James W. Bradley the new Director of the Robert S. Peabody Museum.

**MASS MEDIA SCIENCE AND ENGINEERING FELLOWS PROGRAM.** For the past sixteen years the American Association for the Advancement of Science has administered the Mass Media Program, which provides opportunities for advanced students in the natural and social sciences, and engineering to spend ten weeks during the summer working as reporters, researchers, or production

assistants with mass media organizations around the country. Candidates go through a highly competitive nationwide selection process, with only 17 chosen of the 170 applicants for the 1990 program. In the past, a total of 262 Fellows have been placed with 27 newspapers, 4 weekly news magazines, 17 radio stations, and 33 television stations across the country. We hope to involve additional media organization as new host sites in the years to come. The AAAS Mass Media Fellows program is supported by grants from private corporations, foundation, and association, as well as by AAAS. Fellows receive a weekly stipend of \$350 plus all travel expenses. For information on the 1991 program contact: Directorate for Education and Human Resources, AAAS, 1333 H St., NW, Washington DC 20005.

**CULTURAL RESOURCES MANAGEMENT COURSES AT THE U OF NEVADA, RENO.** The Continuing Education Program in CRM is scheduling courses and workshops in a number of cities around the county. The workshop "Archives and Archaeologists" should be of special interest to SAA members. The workshop is designed to acquaint archaeologists, curators, and others with archival procedures that will meet or exceed the standards in the new federal curation regulation. It will be held prior to the SAA meetings in New Orleans. The program is a cooperative undertaking with the Bureau of Land Management, the National Park Service, and the Advisory Council of Historic Preservation.

**THE METROPOLITAN MUSEUM'S WORKSHOPS** are supported by the New York State Council on the Arts and are open to staff and trustees of museums, historic sites, and university galleries. Six workshops are offered this season with topics ranging from "Learning in Museums", to "Care and Interpretation of Native American Collections", and "Art on Screen: Film and Video in Museums". Contact: Stella Paul, The Metropolitan Museum of Art, 1000 Fifth Avenue, New York, NY 10028-0198; (212) 879-5500.



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## 1990

**Nov 26-30 DIGGING FOR THE TRUTH: INTERPRETING ARCHAEOLOGICAL SITES** will be held during the 1990 National Interpreters Workshop, Omni Hotel, Charleston, S.C. Hosted by the Interagency Archaeological Services Division, National Park Service, Atlanta, GA.

**Nov 28-Dec 2 AMERICAN ANTHROPOLOGICAL ASSOCIATION**, 89th Annual Meeting, The New Orleans Hilton, New Orleans, LA.

## 1991

**February 14-19 AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE**, annual meeting in Washington, D.C. featuring speakers from a diverse array of scientific disciplines. For information contact Meeting and Publications Center, 1333 H Street, N.W. Washington, D.C. 20005; (202)362-6450.

**March 28-30 NORTHWEST ANTHROPOLOGICAL CONFERENCE**, 44TH annual meeting, Missoula, MT. Deadline for abstracts February 15, 1991. Contact Gregory Campbell, Dept of Anth, U Montana, Missoula, MT 59812; (406) 243-2478 or -2693.

**April 12-13 FROM BONES TO BEHAVIOR**. Ethnoarchaeological and experimental contributions to the interpretation of hunter-gatherer behavior based on faunal remains and their context. 8th annual Visiting Scholar's Conference, sponsored by the Center for Archaeological Investigations, Southern

Illinois University at Carbondale. Abstract deadline December 14. For details, contact Jean Hudson, Center for Archaeological Invest., Southern Illinois U., Carbondale, IL 62901.

**April 12-14, NORTHWESTERN PLAINS ARCHAEOLOGICAL SYMPOSIUM: STATE OF THE ART**, at the Holiday Inn, Billings, MT. Theme: High Plains Archaeology. Contact John C.

sity of Newfoundland, St. John's, Nfld., A1C 5S7, CANADA.

**May 27-June 22 XVII PACIFIC SCIENCE CONGRESS**, Honolulu, HI. Theme: "Toward the Pacific Century; The Challenge of Change." Contact XVII Pacific Science Congress, 2424 Maile Way, 4th floor, Honolulu, HI 96822; (808) 948-5976.

**June 17-22 MAYA CERAMIC WORKSHOP**, in San Ignacio, Cayo, Belize, will focus on comparative ceramic chronological sequences in the Maya area and will seek to achieve a better understanding of the temporal issues that are problematic in the area. Contact Dr. Anabel Ford, MesoAmerican Research Center, Social Process Research Institute, University of California, Santa Barbara, CA 93106.

**Sept 26-29 SIXTH NORTH AMERICAN FUR TRADE CONFERENCE**, at the Grand Hotel on Mackinac Island, MI, hosted by Mackinac State Historic Parks. Contact Dr. Donald P. Heldman, P.O. Box 515, Mackinaw City, MI 49701.

**Nov 1-2 FORT DEFIANCE CONFERENCE**. Theme: "Contest for the Old Northwest: The United States, Canada, and the Ohio Country Indian Wars, 1790-1795." The symposium will commemorate America's struggle with Great Britain and the Northwest Indian tribes for control of the Northwest Territory during the post-Confederation era. Contact Larry L. Nelson, Fort Meigs State Memorial, Ohio Historical Society, P.O. Box 3, Perrysburg, OH 43551.



Rogers, Montana Archaeological Society, 535 Howard Ave., Billings, MT 59101.

**April 23-28 SOCIETY FOR AMERICAN ARCHAEOLOGY, 56TH ANNUAL MEETING**, Clarion Hotel, New Orleans, LA. It's not too early to start planning.

**May 8-11 CANADIAN ARCHAEOLOGICAL ASSOCIATION MEETINGS**, at the Radisson Plaza Hotel, St. John's Newfoundland, Canada, hosted by the Historic Resources Division, Nfld. Prov. Gov't. Proposals are sought for papers, sessions and posters. Deadline for 200 word abstracts is 31 January 1991. Contact Ralph Pastore, Dept. of History, Memorial Univer-