
PENNSYLVANIA ARCHAEOLOGICAL COUNCIL

PRESIDENT'S MESSAGE

ARCHAEOLOGICAL QUALITY ASSURANCE: STANDARDS, REGISTERS, CERTIFICATION AND YOU

One hot topic among archaeologists these days is quality control. Various measures for setting standards for archaeological practice and assuring public accountability for professional archaeologists have been proposed and debated recently. There seems to be a perception that archaeology, particularly CRM archaeology, is not always done as well or as professionally as it should be. Some archaeologists push for us to debate and discuss problems in professional conduct more openly. The questions being asked in a wide variety of quarters include: How can the profession make sure that inadequate archaeology isn't being done by unqualified individuals? How can archaeologists be held accountable for their professional actions? Can we agree on minimum standards of performance? While we seem to be a long way from formal licensing, the answers being proposed all involve methods of qualifying archaeologists as professionals. PAC members need to be aware of all these debates. In fact, I urge you to participate in reasoned discussions rather than complaining about poor performance or unprofessional behavior informally.

Most PAC members probably know that at the national level, discussions about the establishing a Register of Professional Archaeologists (ROPA) have been going on for several years. However, if you are like me, you don't always pay attention to issues like this until they confront you directly. Thus, you may be feeling unprepared to discuss the pros and cons of ROPA. You can find more information about ROPA on the web at www.saa.org where web versions of the SAA Bulletin are available. Look especially at the March, 1998 issue. There also will be a ROPA column in future SAA Bulletins.

ROPA developed out of a sense that the Society of Professional Archaeologists (SOPA), which was established in 1976, had failed to attract a large enough percentage of the professional community to be effective as a voice for standards within the discipline. A task force was formed to look at the issue of how to address standards and ethics within the discipline, and it proposed the creation of ROPA. These discussions culminated with the establishment of ROPA this spring. ROPA is sponsored by the Society for American Archaeology (SAA), the Society for Historical Archaeology (SHA) and SOPA. It is hoped that the Archaeological Institute of America (AIA) also will vote to sponsor ROPA, but this process has not yet been completed. All SOPA members automatically have become Registered Professional Archaeologists (RPAs) under ROPA, and all SAA and SHA members are being urged to join ROPA. The application form can be downloaded by going to the SOPA web site at www.smu.edu/~anthrop/spaapp.html.

The concept of a register is based on agreement that public accountability is at the core of

professionalism. When you become an RPA, you agree to uphold a specific code of conduct and to conform to research standards. You also agree to participate in a grievance process if there is a credible ethical challenge to work that you have done as a professional. Rather than receiving a license to practice archaeology, or to practice a particular type of archaeology, RPAs are stating that they will submit their performance to scrutiny with respect to ethical and research standards. It seems to me that being an RPA means taking a stand that you will behave professionally and ethically as an archaeologist within commonly accepted standards of conduct and research, part of which involves not undertaking work that you are not qualified to do. This strikes me as in line with what most of the archaeologists I have known are trying to do anyway. While I would agree that there are instances of substandard and unethical work, most archeologists really do try to do a credible job at the archaeology they do. Our problem is not that there are lots of people trying to get away with sub-standard work, but that we do not completely agree about qualifications and standards, that there has been no way to debate and refine our standards fully and that we have had no fair way to hold each other accountable. ROPA is an effort to build a baseline consensus on qualifications and standards and a way to give us a fair mechanism for handling complaints.

If you follow ACRA-L or other discussion lists, you know that lots of people are dissatisfied with ROPA. The application procedures and requirements have been criticized for rigidity and emphasis on "dirt archaeologists". Some argue that SOPA's original system of qualifying people in specialty areas needs to be instituted. Others argue that ROPA has no force of law so it won't stop sub-standard work anyway. Still others seem to be saying that it doesn't get at most of the problems in CRM practice today. I find it hard to disagree with many of the points being made in these discussions. I certainly think the application process needs refinement and that we ought to revisit how to deal with specialization within archaeology. Still I keep coming back to the simple concept, ROPA isn't a weak and doomed form of licensing, but a mechanism which gives us a chance to stand up for professionalism. Becoming an RPA means committing to work with our peers on an orderly process of archaeological quality control. To me that's a powerful and empowering idea, and I'm willing to give it a try. I urge you to look carefully at ROPA too.

Furthermore, this is not just a national issue. Not only has CRM and archaeological practice in Pennsylvania received national attention through presentations at the SAA meetings and debate in the SAA Bulletin (15(1)), but there has been considerable attention on email discussion lists as to whether certain Pennsylvania compliance projects were correctly conducted and reviewed. Now this issue has come home to us in Pennsylvania even more directly. At PAC's Spring Business Meeting, the BHP informed us that the PHMC was seriously discussing a certification or pre-qualification process for archaeological consultants. Although the details of this process were not yet clear, it was stressed that members of the Commission are concerned about the quality of archaeological work within Pennsylvania. At this point we have been notified that the PHMC has voted to institute a process of pre-qualification and directed the BHP to develop a draft of such a process before their September meeting.

The nature of pre-qualification is not at all clear. At this point some sort of yearly review of consultants on the BHP list is anticipated rather than a one time certification. Consultants would have to submit credentials showing that they meet 36CFR61 as well as summary plans for how archaeological investigations would be conducted. Other than this we have very little information about what the process might look like. Will firms or individuals be pre-qualified? Can a blanket pre-qualification for all archaeology be useful or should pre-qualification be done by specialty? How much time can the BHP staff realistically devote to this task? How will annual renewal of

pre-qualification work?

Obviously we cannot be complacent about the issue of quality assurance nor can we envision that developments on the national level like ROPA will suffice. We are being forced to address this issue here in Pennsylvania, and we are being forced to address it now in very practical and concrete ways. PAC has been asked to provide input and I have appointed a task force to meet with the BHP. This task force consisting of Dan Roberts, Pat Miller, Rick Geidel, Phil Neusius, and Lori Frye will be meeting with the BHP on August 4. Please direct your input to members of this task force or to myself. In addition, all PAC members should take advantage of an open meeting for consultants about this process, which I believe will be scheduled for the end of August. In the mean time, we all need to consider what problems in archaeological practice need to be controlled as well as what mechanisms will work best to make sure that work is being done as professionally as possible.

One hot topic among archaeologists these days is quality control. Various measures for setting standards for archaeological practice and assuring public accountability for professional archaeologists have been proposed and debated recently. There seems to be a perception that archaeology, particularly CRM archaeology, is not always done as well or as professionally as it should be. Some archaeologists push for us to debate and discuss problems in professional conduct more openly. The questions being asked in a wide variety of quarters include: How can the profession make sure that inadequate archaeology isn't being done by unqualified individuals? How can archaeologists be held accountable for their professional actions? Can we agree on minimum standards of performance? While we seem to be a long way from formal licensing, the answers being proposed all involve methods of qualifying archaeologists as professionals. PAC members need to be aware of all these debates. In fact, I urge you to participate in reasoned discussions rather than complaining about poor performance or unprofessional behavior informally.

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*Sarah W. Neusius
Department of Anthropology
Indiana University of
Pennsylvania*

COOPERATION COLUMN

It has been suggested that the PAC Newsletter could provide a medium in which requests for information regarding research questions / problems could be posted. If you have such requests, please forward them to the editor (see below) for inclusion in the next Newsletter.

NO SUBMISSIONS FOR THIS ISSUE.

CURRENT RESEARCH

In an effort to shine some light onto the "gray" literature, the editor requests submissions for the Current Research column. These should be short descriptions of on-going or recently completed work. Reference to the full report should be included, if available. Please forward such items to the editor (see below). Many thanks to those who contributed to this issue.

GAI Consultants, Inc.

GAI recently completed Phase I-III archaeological investigations of the well-preserved, late 18th-20th century Cabbage Pond Mill Site (Site 7S-C-61) near Lincoln, Sussex County, Delaware. The work was performed for the Delaware Department of Transportation (DelDOT) in response to the unexpected discovery of a mortared brick foundation during replacement of Bridge 3-936, carrying Road 214, over Cabbage Pond. Field investigations resulted in the excavation of 29 shovel test pits, 6 (5 by 5-foot) test units, 7 machine trenches, and 20 (5 by 10-foot) collection units. In addition to the brick foundation, several mill-related architectural features were identified including a series of brick piers (lean-to addition), a large, hand-hewn, corner-timbered log foundation (ostensibly, predating the brick foundation), and multiple timber courses representing, at least, two water power systems. Based on historical and oral documentation, it appears that the site functioned primarily as a gristmill during its roughly 160+ year history.

Archaeological investigations conducted along the interior of the brick foundation produced multiple, sealed contexts as revealed by the remains of at least two construction/demolition episodes. Data

recovery work was focused primarily on the mill's water power system which was preserved relatively intact directly below the existing road within the existing right-of-way. A possible tandem wheel pit was exposed beneath the turbine pit along the eastern side of the water power area. Preliminary site interpretations suggest that a/the wheel at Cubbage Pond was an undershot wheel(s), possibly one of the few in the area at this time. Results of archival and archaeological investigations suggest that a turbine was installed, or possibly improved, at the site during the last quarter of the nineteenth century.

At the conclusion of fieldwork, following the dismantling of the mill's water power system, structural timbers were removed to the Dayett Mill by George & Lynch, Inc. and the Delaware SHPO. Dr. Herman Heikkenen (Dendrochronology, Inc.) is presently conducting an analysis of wood samples from the mill by using the key-year technique, a method of aligning tree-ring patterns developed by Heikkenen. Results of this analysis will provide crucial information for interpreting the sequence of construction at the site. A public presentation of the results of this project is scheduled to be delivered at the Milford Senior Center as part of Delaware Archaeology Week.

PUBLIC EDUCATION

[In order to encourage the very important task of developing public support of and involvement in archaeology, members are asked to submit short items describing how they, and their firms, institutions, and organizations are interacting with the general public.]

NO SUBMISSIONS FOR THIS ISSUE

COMMITTEE REPORTS

Survey Priorities Committee

The Survey Priorities Committee was directed at the Spring 1997 PAC meeting to develop a methodological approach for synthesizing data and improving the survey priorities policy by better defining high probability areas within low-priority watersheds. The basic outline of the approach developed by the committee was presented at the Spring 1998 business meeting and involves studying a sample of low-priority watersheds focusing on the following questions:

- 1) What do we know about the prehistoric use of uplands in each watershed? The study will examine the existing data base for each watershed, focusing on results of systematic surveys and site excavations, as well as assessing the amount and reliability of the information in the Pennsylvania Archaeological Site Survey files.
- 2) What do we need to know that we cannot learn from the existing data base? This step would involve identifying temporally specific research issues that cannot be adequately addressed with existing data.
- 3) What type of data do we need to address these issues? Is more systematic survey data needed, or only more excavation and analysis of existing data? These information needs could be incorporated into PHMC decisions regarding the need for additional survey in low-priority watersheds.

To provide support for the study PAC has submitted a Historic Preservation Grant proposal. The proposed project would study the existing site data within three of the 19 low-priority watersheds to identify information needs and to precisely define environmental settings with a high probability for containing sites that would address these needs. The three low-priority watersheds will include one each from the eastern, central, and western parts of the state. A Principal Investigator, each of which is a PAC member, will lead the study in each region, assisted by one or more Research Assistants. The end product will be a report for each watershed describing the results of the study relevant to the project goals. The team for each region will include at least two peer reviewers who will be consulted during the course of the study and who will provide comments on the final report. The reports will be submitted to the PHMC with recommendations regarding survey priorities for upland terrain that could be generalized to adjacent watersheds.

Submitted by Pat Miller

NCPTT GRANT SUBMISSION

In January, 1998, PAC submitted a National Center for Preservation Technology and Training (NCPTT) grant proposal for a project entitled "Pennsylvania Archaeology Online: A CRM Report Database". If funded this project will place select information from CRM reports, such as the report abstract, title, author, county, and township, on the Internet in a searchable format. The database will allow archaeologists in a variety of settings to determine if CRM reports on file at the SHPO are relevant to their research interests. By making it easier for archaeologists to identify and locate relevant CRM reports, the project has the potential to stimulate creative research within Pennsylvania. The proposed project will involve the design and installation of web-server software capable of text searches over a database of several thousand abstracts. The web site will be constructed and tested at the University of Pittsburgh and transferred to the Indiana University of Pennsylvania (IUP) at the end of the grant period. It is anticipated that all abstracts generated between January 1997 and December 1998 will be entered into the database during the grant period. Basic information about previous archaeological CRM reports (such as report author, county, township, year, and type of study) will be imported into the database from the existing SHPO Paradox database. As part of the project an ongoing procedure will be established for updating the online data on a periodic basis following the end of the grant period. It is anticipated that the database will be updated on a quarterly basis. Project co-Principal Investigators are Gary Coppock and Patricia Miller. Noël Strattan, of the Pennsylvania Historical and Museum Commission, Bureau of Historic Preservation, and Donald Chiarulli, of the Department of Computer Science, University of Pittsburgh, are project co-Investigators.

FORUM

[Members are invited to submit comments on issues of current concern. With luck, varying points of view will be presented.]

NO SUBMISSIONS FOR THIS ISSUE

COMPUTER USER'S COLUMN

by Mark A. McConaughy

The Bureau for Historic Preservation (BHP) of the Pennsylvania Historical and Museum Commission (PHMC) and the Pennsylvania Department of Transportation (PennDOT) are developing a Cultural Resources Geographical Information System (CR/GIS) to be used on various levels by the respective agencies, other governmental agencies, consultants and the public. This column will present information about the status of the CR/GIS project and its future goals.

The BHP reviews over 7000 proposed projects that could potentially impact cultural resources every year. Several people must manually check up to four different data files for information about cultural resources that might be impacted by proposed projects. Consultants also have to visit the BHP offices in Harrisburg to manually check cultural resource archives for information about their projects. This type of research is time consuming and expensive to conduct. Nevertheless, new regulations require faster reviews of proposed projects by the BHP staff, but additional staff or resources have not been provided to conduct speedier reviews. Thus, there is pressure to adopt a more cost and time efficient method for reviewing projects.

Several years ago, the BHP and PennDOT, one of the agencies requesting faster processing of project proposals, recognized a high tech solution to this problem was needed. PennDOT provided funding in 1992 to conduct a feasibility study of the development of a CR/GIS that would integrate all existing BHP cultural resource data and make them available as a layer for use with PennDOT's GIS system. Louis Berger and Associates conducted this study and determined a CR/GIS system was feasible. Gannett-Fleming and Associates was hired in 1994 to develop an integrated CR/GIS plan and design the database. An interdepartmental state agency task force was formed in 1995 to direct development of the CR/GIS system.

By 1996, sufficient progress was made that a test of the CR/GIS plan and database design could be undertaken. Two pilot projects were started, one conducted by Penn State using data from Fayette County and another run by the U.S. Army Corps of Engineers employing information from York County. The pilot projects were completed by the end of 1997, and both demonstrated the feasibility and functionality of the CR/GIS plan and database.

Work to input cultural resource data from the rest of Pennsylvania started in 1998. Baseline data are currently being digitized and should be available for the entire state by June, 1999. Baseline data consists simply of any archaeological and historical sites currently plotted on USGS topographic maps in the BHP's files. In addition, existing Paradox databases will be integrated into the system and data linked to their respective sites. Baseline data will get the CR/GIS system running, but it will not be as powerful as the planned enhanced system. Data will still need to be checked for errors, historic properties not currently plotted on USGS maps will have to be digitized and data will be augmented as listed below.

How long it will take to fully implement the CR/GIS depends largely on obtaining sufficient funds to complete the full system. There is sufficient funding committed to continue work on the CR/GIS through 1998, but not enough to enter all enhanced cultural resource data. It is estimated that only about a fifth of the funds needed to completely implement the CR/GIS system have been obtained. A fully enhanced system will cost around \$5.1 million dollars, and there currently are commitments for \$1.4 million from PennDOT, the Baltimore Corps of Engineers, PHMC, Lancaster County Planning

Commission and the Department of Economic and Community Development of Erie County. There currently is no line item in the state budget dedicated to the development of the CR/GIS system. An interdepartmental state GIS group will be attempting to get money placed in the budget that would complete the development of the CR/GIS. However, there is no guarantee that they will be successful. If not, then the BHP and PennDOT would have to raise development money from outside sources. It is estimated the former method would result in a fully implemented and operational CR/GIS in about three years, the latter method in around six years.

The CR/GIS will greatly facilitate peoples' ability to work with cultural resource data once it is completed. It will offer immediate access to information that has accumulated in PHMC and BHP files over the years. Much of these data are currently locked in paper files accessible only to the most industrious and persistent researchers who must travel to Harrisburg to examine them. The fully enhanced CR/GIS will provide:

- a comprehensive and current inventory of archaeological resources, National Register properties, properties currently listed as eligible for the National Register of Historic Places and any other historic properties identified by during regional surveys made for the BHP.
- site boundary information where it has been determined;
- boundaries of previously conducted surveys and projects;
- abstracts of reports generated by projects;
- existing photographs of historic structures, artifacts and archaeological projects;
- line drawings of artifacts, site maps, etc.;
- BHP database files linked to the sites;
- predictive models based on all integrated data.

The CR/GIS system will permit users to view site locations, mouse click on the site and hypertext links to the above types of data will be provided on a pop up menu. Users would click on the particular type of information they wish to access (i.e., a photograph of a structure) and it would be displayed.

Various environmental layers will be provided by PennDOT, PADEP and PADCNR for use with the CR/GIS. These will include geographic, geologic, hydrologic, and many other environmental layers. Also, digital ortho quad photographs for all of Pennsylvania should be available as a layer by the time the CR/GIS is completed. A fully enhanced CR/GIS integrated with GIS systems from the other state agencies will be a very powerful research tool for archaeologists and historians.

The CR/GIS will be made available to the public through the Internet. However, locations of archaeological sites will be provided only in fuzzy location models that indicate how many sites are present in a square map unit. The size of the unit has not been decided, but it could be set at a square mile, square kilometer, etc. Historic structure data are not as sensitive, and the public would be able to fully access those data. Schools with Internet access would be able to use the CR/GIS to augment their Pennsylvania history classes. Students could call up images on all the National Register sites in their area, search for all the recorded Victorian-style houses in a region, etc., and easily get those data

from the system. Use of the CR/GIS as an education tool is a secondary function, but one that opens the BHP's files to a greater user base. This secondary use may be an aid in obtaining funding for the CR/GIS from the state. It shows that use of the CR/GIS will not be confined to a limited number of professional historians and archaeologists.

The CR/GIS will greatly benefit consultants and various agencies required to monitor project impacts to cultural resources. They will be able to easily access, via the Internet or direct connection to the state server, information currently locked in paper files at the BHP. Consultants will not have to send a researcher to Harrisburg simply to check existing data and files. They will be able to call up that information on their office computers. The CR/GIS will have access to and process many more variables than are currently available to human reviewers to develop objective, and probably more effective, predictive models for identifying high probability areas for archaeological sites. Thus, project planners will be able to identify areas that are culturally sensitive early in their design phase. Engineers will then be able to design projects that minimize impact to those resources. Even if they cannot avoid those resources, they will know much sooner in the review process that mitigation will be required and plan accordingly.

The CR/GIS will also speed reviews of proposed projects by the BHP. Plans could be submitted electronically, and a single reviewer could quickly access all existing data about the project area to determine if some type of survey or other mitigation is required. Proposals currently have to be checked by at least three different people who control various paper files to determine potential impacts to cultural resources. This is very labor intensive and time consuming. The CR/GIS would eliminate the need for paper searches by several different BHP reviewers.

Reviews of mitigation projects would also be aided by the CR/GIS. Data and reports could be filed electronically via the Internet. PASS site forms would be submitted in an electronic format that could be immediately integrated into the CR/GIS. Electronic filing of site data would make that information almost instantaneously available to other researchers. Reviewers would be able to comment on the reports, mark them up electronically and send them back to consultants via the Internet, eliminating time lost to the process of shipping manuscripts via the U.S. Postal Service. Ultimately, the goal of the CR/GIS system is to provide an automated permitting and review process.

The CR/GIS system will also be a very powerful research tool. Comparison of the CR/GIS layer with other ecological and environmental layers should reveal settlement pattern correlations that have not been considered in the past. The CR/GIS could be queried to quickly discover where all of a particular diagnostic artifact, raw materials, building style or sites of a particular phase or period have been recorded in Pennsylvania. A graphical representation of these queries would be presented along with the numeric data for statistical treatment.

A fully enhanced CR/GIS will benefit everyone. It will save time processing permits, conducting research and mitigation work. The biggest problem facing the BHP will getting the funding to complete the system and then funding to maintain and update information once it has been completed. The BHP is looking for partners who might be able to commit funds and/or in-kind services to help complete the CR/GIS. Regional planning agencies, state and federal agencies, grants and other funding methods are all being approached or examined as possible sources of funding. Depending on funding sources, the BHP expects to have the enhanced CR/GIS online three to six years after completion of the baseline data coding, scheduled for June, 1999.

PAC members who have questions about the CR/GIS system can contact Noel Strattan (717-772-4519

or myself (724-527-5585 x103). We will be happy to talk to you about it.

ANNOUNCEMENTS

NEW APPOINTMENTS FRANKLIN AND MARSHALL COLLEGE

Franklin and Marshall College announces the hiring of two new Assistant Professors of Anthropology, both specializing in archaeology. They are a married couple who will be sharing the position.

MARY ANN LEVINE: Mary Ann is a native of Quebec who specializes in the prehistoric archaeology of the Northeastern U.S. and Canada. She received her B.A. from McGill, her M.A. from the University of Massachusetts at Amherst, and her Ph.D. in 1996 also from UMass. Her dissertation title was "Native Copper, Hunter-Gatherers, and Northeastern Prehistory." She has co-edited a volume entitled "The Archaeological Northeast," and has published articles on copper procurement in the northeast, ethnographic analogy in archaeology, and women's contributions to archaeology. Prior to coming to F&M, Mary Ann taught at UMass, Tufts, and Ithaca College.

JAMES A. DELLE: Jim is a Massachusetts native who specializes in the historical archaeology of the Caribbean and the comparative archaeology of colonialism. He received his B.A. from Holy Cross, his M.A. from William and Mary, and his Ph.D. in 1996 from the University of Massachusetts at Amherst. His dissertation title was "An Archaeology of Crisis: The Manipulation of Social Spaces in the Blue Mountain Coffee Plantation Complex of Jamaica, 1790-1865." His book, "The Archaeology of Social Space," is due out in the summer of 1998, and his co-edited volume, "Lines that Divide: Historical Archaeologies of Race, Class, Gender, and Ethnicity" will soon be published as a special double issue of the International Journal of Historical Archaeology. He has published articles on the archaeology of colonialism, spatial archaeology in Ireland and the Caribbean, the archaeology of commodity production, and the archaeology of race and gender. Prior to coming to F&M, Jim taught at UMass, Clark, and NYU.

submitted by Fred Kinsey

MEETING AND EVENTS CALENDAR

Pennsylvania Archaeological Council

Date: November 13, 1998

Place: Gettysburg at the Eisenhower National Historic Site

Eastern States Archaeological Federation

Date: 29 October - 1 November 1998

Place: East Mountain Inn, Wilkes-Barre

** Please send notices of upcoming events to the editor.

PLEASE NOTE

The PAC Constitution requires that PAC members also belong to the Society for Pennsylvania Archaeology. It is important to foster communication between professional and avocational archaeologists. Moreover, membership in SPA supports Pennsylvania Archaeologist in which PAC members often publish.

SPA annual dues are \$14.00 for individuals and \$16.00 for families, which should be sent to: Archaeological Services, P.O. Box 386, Bethlehem, CT 06751-0386.

EDITOR'S NOTE

Materials for the PAC Newsletter should be sent to: Philip A. Perazio, KAR, Inc.,
P.O. Box 1117, Stroudsburg, PA 18360
Phone: 717-620-2591; FAX: 717-620-0186
EMAIL: kittarch@sunlink.net

Please send contributions on disk (Wordperfect 6.1 preferred), accompanied by a hard copy. You may also attempt to send submissions as email attachments. However, not all systems are compatible, so this does not always work. Short items, 1 page or less, may be submitted in hard copy or by FAX.

**Deadline for next issue:
1 November 1998.**

NOTE: Please make sure PAC has your current FAX and/or Email addresses so that we may distribute urgent information as quickly as possible. Send updates to Mark McConaughy.