Society for American Archaeology



Volume 17 November 1999 No. 5

"Until the 1930s, the work of avocational archaeologists remained generally unsung... Where antiquarians and casual amateurs collected and commercialized artifacts, avocationalists focused their energies on building knowledge through archaeology. They professionalized their contri-butions, often consulting and working with trained archaeologists, and became involved in the national dialogues about the past. The work of Harry Trow-bridge stands as a classic illustration of the avocational archaeologist..."



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The SAA Bulletin (ISSN 0741-5672) is published five times a year and is edited by Mark Aldenderfer, with editorial assistance from Karen Doehner. Deadlines for submissions are: December 1 (January), February 1 (March), April 1 (May), August 1 (September), and October 1 (November); send to SAA Bulletin, Dept. of Anthropology, UCSanta Barbara, Santa Barbara, CA 93106-3210. For information, call (805) 893-8604, (805), fax (805) 893-8707, or email saanews@alishaw.ucsb.edu. Manuscript submission via email or by disk is encouraged. Advertising and placement ads should be sent to SAA headquarters, 900 Second St. NE #12, Washington, DC 20002, (202) 789-8200. Associate editors include Kevin Pape [Insights, (513) 287-7700], Kurt Dongoske [Working Together, (520) 734-2441], Teresa Hoffman [PEC (602) 894-5477], and John Hoopes [Networks, (785) 864-4103], and Jose Luis Lanata (southern cone contact, illanata@filo.uba.ar) and Emily McClung de Tapia (Mexico and Central America contact, mcclung@servidor.unam.mx). Inquiries and column submissions should be addressed directly to them. The SAA Bulletin is provided free to members and institutional subscribers to American Antiquity and Latin American Antiquity worldwide. The SAA Bulletin can be found in gopher at alishaw.ucsb.edu, and on the web at www.saa.org/Publications/saabulletin/. Items published reflect the views of the authors and publication does not imply SAA endorsement. Copyright © 1999 by the Society for American Archaeology. All rights reserved.



Life is meant to be full of challenges, but sometimes, the challenge can be more than one bargains for. The production of this issue of the *Bulletin* is a case in point. I'm presently in southern Peru in the Lake Titicaca basin working on early village sites. With the technological advances that have recently reached Peru, Karen Doehner (my editorial assistant) and I decided to live dangerously and attempt production of the *Bulletin* from Peru, rather than find a temporary substitute to do our jobs in Santa Barbara. We are placing great faith in the power of the Internet, Telefónica de Peru (the national tele-phone company), and the abilities of overnight services to make this happen.

Our home base is in Puno, and since our last stay here in 1997, more than eight Internet cafes and shops have sprung up. This is eight more than there were back then. Our favorite has 10 Windows 95 boxes, and there's not a Mac to be seen anywhere except in our lab (more on that later). We were well primed by colleagues that, despite a highly variable speed of access and a system prone to periodic collapse, the system generally was reliable and effective. Although we were prepared to face occasional power failures, we didn't factor them in as the more serious obstacle they really are.

Although we sometimes grit our teeth at the slow crawl of attachment downloads and response time, we have generally been pleased with the service. Our main problem has been ensuring that all messages have been received and acknowledged, and that nothing has slipped through the cracks. Since telnet connections to our server at UCSB can be excruciatingly slow, we've come to rely upon Web-based mail services. We're currently having our mail forwarded to a Yahoo account, which so far has been successful with attachments in a bewildering array of formats. We've also become familiar with old Unix and DOS-based programs like ftp. Depending on the time of day, a good ftp session can be blazingly fast.

There are some advantages to slow connections, however. Our Internet provider's shop is on the second floor overlooking Puno's pedestrian mall. We've had a good view of a number of traditional dances and parades while waiting for something to appear on screen. There is a bit of cultural dissonance between the late 20th century of our immediate surroundings and the 17th-century costumes and poses of the dancers below.

Despite our reliance upon the Internet, we still use fax extensively. Our faxes come to a central locale where phone and fax lines are shared. Those who fax us have the unique experience of having to bellow "fax" to the operator, who then switches lines. There is a cost as wellwe pay a bit more than 50 cents per page at our end to get a fax.

Our final production problem is one of our making. We produce the *Bulletin* on a Mac in Pagemaker[®]. At home in California, we routinely print copies of the *Bulletin* for proofreading and evaluation of the layout. Here, though, Mac-compatible printers are nonexistent, and work-around solutions, such as various kinds of adaptors to make our USB Power Mac "speak to" Latin American versions of popular printers, has proven infeasible. Our solution? Nathan Craig, one of my tenacious graduate students here with me, converted the Pagemaker files to a pdf (portable document file) version of the *Bulletin* that prints on any printer without needing the correct fonts loaded on the computer itself.

The challenge has been difficult, but rewarding. Producing the *Bulletin* in Peru has given us a new perspective on some of the real limitations of the Internet as a means of communication as well as a deeper insight into the problems faced by our Latin American colleagues as they find themselves more and more reliant upon a technology that is not easily affordable nor accessible to many. Although I remain a firm believer in the merits of the Internet for scholarly communication, especially for SAA, this experience has made me more sensitive to the calls that remind us that not all the world is yet a part of the "information age," and that we must take this into account as we develop our programs and plans.

Although we have overcome many of the logistical problems, our dependence on international mailing couriers has been the final blow in throwing *Bulletin* production and publication off its normal schedule. We apologize for the delay in circulation of this issue.

New Editor for American Antiquity

As of January 1, 2000, the editorship of *American Antiquity* moves to Timothy A. Kohler at Washington State University-Pullman. Manuscripts and correspondence may be directed to Timothy A. Kohler, Editor-Designate, *American Antiquity*, Department of Anthropology, Washington State University-Pullman, WA 99164-4910, tel: (509) 335-2770 (after Jan. 1), fax: (509) 335-3999, email: aaq@wsu.edu



LETTERS TO THE EDITOR

In the *SAA Bulletin* [1999,17(4): 2223], which I recently received in Lima, Peru, I was amazed to read the following quote of JoesphSchuldenrein, taken from his article, "Charting a Middle Ground in the NAGPRA Constroversy: Secularism in Context": "If we accept the gathering momentum of the Western model and its pivotal tenets (inclusive of the scientific method) a point that is almost not arguable in the post-Cold War era . . ." To those readers who do question seriously and scientifically the statement made by Schuldenrein, I would suggest reading the article "From Social Archaeology to National Archaeology: Up from Domination," published in *American Antiquity* [64(2)], as well as publications of the Killka Project, which can be found in major libraries in the United States, including the New York Public Library and the Library of the University of California at Berkeley. The newest of the Killka Project publications, *Archaeography and Archaeolinguistics: Illuminating a Proper Language of Aesthetics and Communication*, has been printed in a Spanish and English bilingual edition, and contains a summary of the paper of the same name, to be read at the XII Congreso Peruano del Hombre y Cultura Andina, an event held at the Universidad Nacional de San Cristobal de Huamanga in Ayacucho, Peru, from October 24 to 29, 1999. As well, the pamphlet contains published and as yet unpublished research, conducted by the Killka Project from a natural/social science perspective. It is our hope you will share this news with your readers.

Karen Guthertz Lizarraga Coordinator, Killka Project MNAAHP-UNSCH

olowski

What are the benefits of our profession? Near as I have been able to reason, the benefits are largely selfish. I've stayed employed as an archaeologist for over 20 years and what is there to show for it? Well, I'd like to think I'm different . . .

Think about it. When you're at a dinner party, having been introduced to your uncle's third cousin from your mother's side, and she asks what you do, do you roll your eyes and mumble "archaeology," knowing the response will be, "Wow, I always wanted to do that! Tell me about it."?

These responses, in my experience, are the easy ones. It is fun to think back on the most amazing thing I ever found and paint a colorful story for an enraptured audience. The more difficult awkward conversations evolve when, instead of being met with the enthusiastic want-to-be, you are hit with the question, "Why? Why do archaeology?" or more specifically, "What are the benefits of archaeology?" The typical answer, having been cornered on numerous occasions, is to say that if we can study the past and learn about past behaviors, we potentially can learn what went wrong in order to avoid making the same mistakes again. This response works some of the time, but what happens if the person is really asking, what are the direct benefits to me?

If all we do is impress each other with our brilliance, insight, and academic prowess, is there a purpose to archaeology? In the "ivory tower," archaeologists are mandated to "publish or perish." We are directed to produce scientific, scholarly papers in professional journals. This is considered real science and professional, but what are the qualitative benefits? How many more mouths are fed? How many more acres are planted? What about the future of heritage resources?

In CRM, archaeologists are mandated to publish or perish in another sense. We must take archaeological theory and academic models and apply them within the context of a compliance-driven business world. Technical reports are written and submitted to satisfy contract requirements, and occasionally, receive peer review. But other than meeting the letter of the law, paving the way for archaeological clearance and the initiation of a construction project, what are the benefits? What has the world gained from another excavation?

What drove you to become an archaeologist? Was it wandering a trail in a national park listening to a gifted interpreter weave a story about a past that came alive as the people were recreated on the landscape? Maybe it was an adventure novel complete with treasure, adventure, and mystery? Or perhaps a full-color Time-Life book illustrating Egyptian tombs and mummies? Whatever the reasons, someone or something caught your attention and caused you to wonder, where did people live? how did they survive? where did they come from? how long ago were they there? and where did they go to the bathroom?

I suggest that this all happened because someonethe impassioned university professor or the enthusiastic project directortook the time to translate the jargon and theory and made it accessible to you. For me, this is the ultimate benefit of archaeologya giving back to the people. Maybe it's as simple as sharing the story of the most remarkable find from a field project. But maybe it's using a predictive model of agricultural potential, crop yield, and storage capabilities from a 1,000-year-old site to benefit modern-day agriculturists facing similar environmental struggles in third-world nations. Maybe it's communicating the archaeological interpretation of the past to native peoples who have all but lost their traditions. Is what we learn ours to keep?

There is potential for archaeology, but only if it reaches people. I contend that what we learn is not ours alone, and as an archaeological educator, I stake my career on it. As archaeologists, we should be keenly aware of where our funding base originates, the public's strong interest in the past, the implications of our research, and the potential for helping to solve problems. Is what you do important? I think it is to all of us.

Carol J. Ellick Statistical Research, Inc.



Erratum

In the September issue of the SAA Bulletin [1999, 17(4): 13] we incorrectly state that Archaeology Magazine is published by the American Institute of Archaeology. We apologize for this error. It is published by the Archaeological Institute of America



Archaeopolitics



On April 20, 1999, the Senate Committee on Indian Affairs held an oversight hearing on the implementation of the Native American Graves Protection and Repatriation Act (NAGPRA). SAA President Keith W. Kintigh was invited to present testimony before the committee on behalf of SAA and the American Association of Physical Anthropologists (AAPA). In the committee's invitation letter, Kintigh was asked to address four specific issues, which are outlined in the testimony below.

Senate Committee on Indian Affairs Oversight Hearing: Implementation of the Native American Graves Protection and Repatriation Act

Tuesday, April 20, 1999, 9:30 a.m., 485 Russell Senate Bldg.

Statement of the Society for American Archaeology and the American Association of Physical Anthropologists

Keith W. Kintigh

Mr. Chairman, the Society for American Archaeology (SAA) thanks the Committee for this opportunity to comment on the current state of NAGPRA implementation. SAA is the leading organization of professional archaeologists in the United States. Starting in 1989, SAA led the scientific community in working with congressional staff on the language of NAGPRA. We provided testimony at Senate and House Committee hearings and helped form a coalition of scientific organizations and Native American groups that strongly supported NAGPRA's enactment. Since that time, we have closely monitored its implementation and have consistently provided comment to the Department of the Interior and to the NAGPRA Review Committee. We urge our members always to work toward the effective and timely implementation of the Act. We are joined in this testimony by the American Association of Physical Anthropologists, which is the leading organization of physical anthropologists in the United States and which also supported the enactment of NAGPRA.

On behalf of the scientific community, we address four major issues: (1) maintenance of NAGPRA coordination functions within the National Park Service's (NPS) Archeology and Ethnography Program; (2) problems with federal agency compliance; (3) extensions for museums that are making good-faith efforts to complete their inventories; and (4) problems associated with the implementation of the Act's definition of cultural affiliation.

Nine years ago, I stood before this Committee to present SAA's testimony on S.1980, the bill that became NAGPRA. Reflecting on the last nine years, I think that, despite the problems that remain, the Committee should be proud of what NAGPRA has accomplished.

· More than 1,000 museums and federal agencies have submitted summaries to tribes, and over 700 have submitted inventories. Repatriations of human remains and cultural items, from both museum collections and new excavations, occur regularly. Most of these repatriations result from mutual agreements between tribes and museums and agencies.

· Consultations mandated by NAGPRA have led to the development of improved understandings between tribal people, museum personnel, and scientists. Many cooperative ventures not required under the law have been successfully pursued.

In the interests of improving NAGPRA's implementation, we now turn to a brief discussion of the four issues.

(1) Coordination of NAGPRA Functions by the Departmental Consulting Archeologist

The Secretary of the Interior has delegated responsibility for NAGPRA coordination to the Departmental Consulting Archeologist (DCA) who is manager of the NPS Archeology and Ethnography Program. Some have suggested that this policy should be reconsidered in light of what has been characterized as a conflict of interest by the DCA. In our opinion, any such move is inadvisable as it would impede and delay rather than enhance and accelerate the implementation of NAGPRA.

- Transfer of the NAGPRA coordination functions from the Archeology and Ethnography Program would require development of a new, expensive, and redundant administrative unit
- A move outside of the Department of the Interior would require an amendment to the law, fostering new uncertainty and delay.
- The Archeology and Ethnography Program has nine years of experience in coordinating NAGPRA and works extensively with archaeologists, Native Americans, and museums in the context of satisfying its other legal responsibilities
- No other administrative unit, either inside or outside the Department of the Interior, has the expertise necessary to coordinate NAGPRA, and only the DCA is in a position to facilitate the critical articulation of NAGPRA with closely related historic preservation law.¹
- The most common and most serious complaints about the NAGPRA coordination function, including those voiced by the Review Committee, tribes, and museums, are a direct consequence of inadequate staffing and funding; they are not due to the location within NPS.² Without additional funding, the DCA simply cannot satisfy all of the responsibilities assigned by the Secretary in a timely way.³ A move would not resolve the critical funding crisis.
- The argument that the DCA has an inherent conflict of interest is not as straightforward as it might seem. Certainly, some Native American groups have argued that their interests have not been adequately taken into account. However, I can assure you that within the scientific community there is a widespread conviction that scientific interests are routinely ignored. In these contexts, we must remember that NAGPRA was a legislative compromise intended to *balance* the legitimate concerns of American Indians and Native Hawaiians with the interests of the scientific community and the broader American public in our shared American heritage. The DCA has consistently attempted to maintain the critical balance that NAGPRA requires.
- Although there is considerable misunderstanding of this point, the Archeology and Ethnography Program
 does *not* have a decision-making role in the determinations of cultural affiliation, even within the National
 Park Service. These determinations are made by the museums and the federal entities that hold the
 collections, not by the DCA.⁴
- The Archeology and Ethnography Program serves a *staff* function to the Review Committee. The Review Committee reports on its activities and in its advisory role *not* to the DCA but directly to Congress and to the Secretary. The DCA has a duty to execute Review Committee decisions, and provides the necessary staff and expertise to do so.
- Since its creation, the NAGPRA Review Committee has worked intensively with the Archeology and Ethnography Program staff. The Review Committee has *not* recommended that the NAGPRA functions be moved.⁵
- Allegations that the NAGPRA grant program is unfairly administered, favoring museums over tribes, are unfounded. Documentation provided to the Review Committee indicates that as of November 30, 1998, tribes have received 57 percent of the grants and 61 percent of the money awarded.⁶

(2) Federal Agency Compliance

SAA and AAPA join the NAGPRA Review Committee, NCAI, tribes, and museums in expressing our dismay over the lack of compliance of some federal agencies with the plain requirements of NAGPRA. For example, despite the statutory requirements that agencies complete their inventories in five years (by November 1995), a representative of a key federal agency testified to the NAGPRA Review Committee that it would take decades to complete its inventories. Further, the lack of timely completion of inventories by a number of agencies is not the only compliance problem. Agency determinations of cultural affiliation are often made without adequate consultations with tribes and without reasonable efforts to compile and weigh either scientific or traditional sources of evidence.

As NAGPRA provides no enforcement provisions affecting agencies, we would ask Congress to employ the means at its disposal to induce or to compel agency compliance. While some appropriations are needed, punitive measures also may be required. In pursuing this objective, the Committee should ensure that agencies do not achieve compliance with NAGPRA at the expense of other critical cultural resource programs.

(3) Extensions for Museums to Complete NAGPRA Inventories of Human Remains and Associated Funerary Objects

The Department of the Interior is evidently considering or has decided upon a blanket denial of the six museum requests for extensions for the completion of inventories. SAA and AAPA believe that denial of extensions to those museums that have very large collections and have demonstrated a good-faith effort⁷ to comply with the law would be contrary to the objectives of NAGPRA. Such a decision would damage productive cooperative arrangements that have developed between tribes and these museums. It also seems unduly harsh in light of the federal agency problems highlighted above.

When inventories are done with care and thorough consultation, museums are able to assign cultural affiliation to remains that, with a less intensive effort, would be deemed "culturally unidentifiable." Given the latitude provided by the law, it seems inevitable that blanket denial of extensions would lead to more remains being placed in the immensely troublesome "culturally unidentifiable" category. In this eventuality, a much larger burden is placed on a tribe to challenge the museum's finding and to show that a preponderance of the evidence supports its cultural affiliation. Further, by cutting short ongoing consultations, such a denial would do a disservice to both the tribes and the museums. However, we would suggest that it is appropriate at this point for the Department to set a relatively high standard for what constitutes a good-faith effort.

To this testimony we have attached a April 6, 1999, letter to Secretary Babbitt presenting, in a more complete form, SAA's assessment of the need for inventory extensions and SAA's argument of why a blanket denial is not a productive response to understandable Native American frustrations.

(4) Cultural Affiliation and the Issue of Joint Affiliation

Cultural affiliation is a cornerstone of NAGPRA because it provides the legitimacy for most repatriation claims. A critical problem in NAGPRA implementation is the widespread expansion, by both agencies and museums, of the statutory definition of cultural affiliation beyond legally defensible limits. Further, while the law requires evidence demonstrating cultural affiliation, agencies and museums often offer little or no evidence or argument supporting their determinations. The evidentiary problem has three components: (1) insufficient consultation with tribes and consideration of traditional evidence they can offer; (2) inadequate attention collecting readily available scientific evidence; and (3) a lack of thoughtful deliberation of this evidence to arrive at a sound determination of cultural affiliation.

In a April 13, 1999, letter attached to this testimony, SAA asked Secretary Babbitt to undertake a legal review of the issue of joint affiliation by broad collections of tribes. Our letter discusses the linkage between the scope of "cultural affiliation" and the issues surrounding the disposition of "culturally unidentifiable" human remains. Pending that review, we ask for a suspension of actions that involve determinations of joint affiliation with a diverse group of modern tribes. Following that review, we ask that NPS provide more oversight and issue written guidance on determinations of cultural affiliation and joint affiliation in order to foster better compliance with the law. We also would encourage the Senate Committee to take whatever steps it believes would be helpful

to encourage better conformance with the law. We suggest that procedural shortcuts and indefensible interpretations of the definitions have already led to problems such as that of the "Kennewick Man," and have the potential to lead to many more problems in the future.

Conclusion

In conclusion, we offer five recommendations:

- (1) As you have heard in the past, the overwhelming obstacle to the effective implementation of NAGPRA is the lack of funding for ongoing tribal, museum, and agency programs to deal with repatriation issues. These costs will continue indefinitely into the future. We ask that the Committee attempt to address this very serious problem.
- (2) The Committee should discourage the transfer of NAGPRA coordination functions from the NPS Archeology and Ethnography Program. Instead, the Committee should use its influence to increase staffing and funding for this Program's NAGPRA functions.
- (3) We ask that the Committee apply the means at its disposal to bring federal agencies into compliance with NAGPRA.
- (4) The Committee should encourage the Department of the Interior to consider requests for inventory extensions based on a case-by-case evaluation of whether the museum has made a good-faith effort to comply.
- (5) Finally, as it considers the broader aspects of NAGPRA implementation, we ask that the Committee devote considerable attention to improving both agency and museum adherence to the letter and the spirit of NAGPRA, particularly with respect to determinations of cultural affiliation.

SAA and AAPA thank you for your consideration of our comments on the implementation of NAGPRA.

For more information on NAGPRA and the material referenced in the testimony, visit SAA's website at www.saa.org.

Keith W. Kintigh, president of the Society for American Archaeology, is professor in the Department of Anthropology at Arizona State University.

Footnotes

- ¹ The expertise that permits this articulation is becoming increasingly important because of the urgency of repatriation issues associated with new excavations and inadvertent discoveries covered by NAGPRA Section 3 and by other federal law.
- ² In a November 13, 1998, letter to Secretary Babbitt, NAGPRA Review Committee chair Tessie Naranjo conveyed the Committee's unanimous sense that the Program has not been given adequate funds or staff to accomplish the tasks it has been assigned.
- ³ For example, NPS has completed processing inventories from only about a third of the 733 institutions that have submitted inventories. Of the 1032 NAGPRA summaries received by NPS by November 30, 1998, only 38 are in the database intended as a clearinghouse for information and only 57 of 733 inventories are in the database.
- ⁴ If the DCA had such authority, we would not expect the dramatic inconsistency that is seen in the cultural affiliations of closely related materials that are held by different institutions.

- ⁵ In the November 13, 1998, letter to Secretary Babbitt mentioned in a previous footnote, Review Committee chair Tessie Naranjo strongly praised the dedication and professionalism of the NPS Archeology and Ethnography Program staff and noted its role in the successful implementation of NAGPRA.
- ⁶ Tribes received 116 grants for \$6.5 million, while museums received 89 grants for \$4.2 million. Further, most of the museum grants include funding to pay tribal expenses for consultation.
- ⁷ This would include an active staff effort dedicated to the inventory completion, a strong record of consultation with tribes, and submission of completed inventories to tribes and of Notices of Inventory Completion to NPS.
- ⁸ A particular problem is the complete lack of federal support for tribal implementation of Section 3 (new excavations and inadvertent discoveries) repatriation issues



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Tobi Brimsek

Have You Visited SAAweb Recently? . . . SAAweb content is changing and more informative than ever! Have you noticed the abstracts of articles from American Antiquity [64(3)] and Latin American Antiquity [10(3)] on the site? The job ads on the Web also are one of the busiest areas. If you have not visited the members only side of the Web recently, give it a try. The online member directory is updated every two weeks. News in the government affairs arena is uploaded as available, and of course, meeting logistics information is already there for the 65th Annual Meeting in Philadelphia. You also may want to check out the important new scrolling messages on the bottom of SAA's home page. We know that many of you visited the site to download forms or to electronically submit abstracts for the 65th Annual Meeting. We'd like your feedback on that process. Please email the executive director, Tobi Brimsek, at tobi_brimsek@saa.org with your comments. Staff is working on making the electronic submissions process more friendly as well as integrating credit card payment options into the process. Watch for our progress!

Win a Two-year Membership in SAA!... The first question you might ask is how? It is very easy. Register for a room at the Philadelphia Marriott for the 65th Annual Meeting, April 59, 2000, by February 1, 2000, and your name will be entered into a drawing for a two-year membership in the Society. Call the Philadelphia Marriott at 1 (800) 320-5744 and make your room reservation today. Full information and a housing form for your use are now available on SAAweb. The cut-off date for reservations at the Philadelphia Marriott is March 12, 2000. Reservations received after this cut-off date will be based on availability. A limited number of rooms are available for our government attendees at the prevailing government rate (\$113). Government guests must provide a government ID to qualify for this rate.

Speaking of the Meeting... In case you wanted to plan ahead, some basic travel information appears below:

Getting to Philadelphia by plane: US Airways has been selected by SAA as the official airline for the 2000 Annual Meeting in Philadelphia. US Airways is offering SAA Annual Meeting attendees special discounted fares to Philadelphia. You can receive an additional discount by purchasing 60 days in advance! To take advantage of US Airways' discounted fares, call US Airways' Group and Meeting Reservation office toll free 1 (877) 874-7687 for reservations. Refer to Gold File Number: 42141114. Getting to Philadelphia by train: SAA also has made arrangements with Amtrak for special fares to Philadelphia for the Annual Meeting. To book a reservation, call Amtrak at 1 (800) 872-7245. When making reservations, please refer to SAA/Society for American Archaeology and the fare code X-67K-946. This arrangement is not valid on Auto Train, Club, or Custom Class service. Fare is valid on Metroliner service during off-peak weekday travel and all departures on weekends.

Just a Reminder for Students . . . SAA has arranged a room block with a special rate of \$103 for single and \$108 for double/triple/quad rooms (including a continental breakfast at the hotel's breakfast bar open from 6:30 a.m. until 10:30 a.m. daily) at the Holiday Inn Express Midtown, 1305-11 Walnut St., Philadelphia, PA 19107. Students must present a current student ID to qualify for this rate. There are a limited number of rooms, and they are available on a first-come, first-served basis. The deadline for student reservations is March 10, 1999. To make reservations, students may call (215) 735-9300 extension 7507, email: midtown@erols.com, or fax: (215) 732-2593. If you email or fax, please indicate name, address, number of persons, whether you need one or two beds, credit card information, and if you would like verification by fax, the name, and fax number to whom it must be sent. Remember these rooms are limited!

Watch That Mail... The preliminary program for SAA's 65th Annual Meeting in Philadelphia will drop in the mail on December 26. Keep your eye out for this important piece describing the first SAA Annual Meeting in the new millennium. It should be arriving in your mail box during the first few weeks in January.

One Last Plea . . . At the Annual Meeting in Chicago last March, we distributed a survey from the Meetings Development Committee on the SAA meeting in the new millennium. Thank you for the responses received at and after the meeting via mail, email, and fax. SAA also published this survey in the *Bulletin* and posted it on SAAweb to allow for the broadest input possible. The survey will remain on the website until the end of December. If you have not had a chance to complete the survey, please visit it on SAAweb. We'd like to hear from you! Thanks.

Tobi Brimsek is executive director of the Society for American Archaeology.



MONEY MATTERS

It's about Location, Location, Location.

Jeffrey H. Altschul

Why is SAA's headquarters located in Washington, D.C.? Wouldn't it be cheaper to be headquartered in a more remote or less expensive city? As treasurer, I have been asked these questions numerous times in the past two years. The answers are a bit complex, but the bottom line is that our D.C. office has been, and continues to be, one of the best investments the Society has ever made.

The choice of Washington, D.C. area for our main office was calculated to advance the mission of the Society for American Archaeology. SAA has three main pillarsgovernment affairs, public education, and publications. Let's examine each in relation to the functions of the Washington office.

Government Affairs -- Located two blocks from Capitol Hill, SAA has a unique opportunity to influence public policymakers and make the voice of archaeology heard among legislators. Networking with historic preservation organizations, lobbying groups, and coalitions is a natural in D.C. With most federal agencies headquartered there, SAA has access to government decisionmakers and can play a role as a key resource to those decisionmakers. Additionally, many organizations whose interests overlap with oursthe American Anthropological Association, American Association for the Advancement of Science, and the National Trust for Historic Preservationand with whom we routinely partner with on legislation and public initiatives, are headquartered in D.C. Regardless of where SAA's headquarters was located, we would have to maintain an office in D.C. for no other reason than to effectively fulfill our mandate in government affairs.

Public Education -- The proximity of SAA to the central offices of federal agencies has a beneficial effect of fostering cooperative agreements and partnership arrangements in which SAA can realize some of its goals in concert with those of the agencies. This has particularly been the case in the area of public education. The joint projects developed over the past four years have been critical to our maintaining a soft-money position in public education at a time when SAA's finances could not afford to fund a staff line. As we move toward a permanent, hard-money position in public education, we want to maintain our ties to federal agencies and other public policy institutions to ensure our central role in forwarding public understanding of archaeology throughout the Americas.

Publications -- The category of publications is the exception that proves the rule. In truth, there is no reason to centralize our publications in the D.C. office, and indeed, we do not. The editors of our journals and newsletters are selected from the exceptional talent in our membership ranks. They can, and do, function quite well in the digital age from their home institutions, both in the United States and abroad. The D.C. office provides managing editor support for these positions, but we do not foresee the need to bring these positions into the more expensive Washington market.

The staff at the SAA office work hard to implement the policies and direction set by SAA's Board of Directors. The office serves as the nerve center for our administrative functionsmaintaining a database of more than 10,000 records, accounting for not only the membership and subscribership, but meetings, advertising, mailing list rentals, and the long list of revenue-generating activities. Our staff work to provide the services that the membership needs and wants. They are association professionals with expertise in a host of areas including

publishing, information services, government affairs, membership, accounting, marketing, and association management.

Intentionally, I didn't respond to the question on the table, "why D.C.?," with a host of numbers and financial data. The answer supercedes a simple budget analysis. Proportionately, our office and staff is quite small for the size of our organization. We have a staff of eight to serve a membership of more than 6,500. It is a very lean staffing approach to the scope of work we accomplish as a society. It works because we have trained association professionals. The fact that D.C. is an association townprofessional associations are the third largest industry in Washingtonmeans that the available association professional talent pool is large and competition keen. Trying to attract and keep a trained staff, even one as small as the SAA's, would be extremely difficult and possibly more expensive to maintain someplace other than in D.C. A small professional staff also succeeds at SAA because of the incredible number of volunteers recruited from our membership. Those that work on various SAA committees, publications, meetings, and other functions complement the staff and help keep the expenses of the Society at a minimum.

In short, the Washington office is a good bargain, stretching itself to the maximum to provide what we, as a Society, ask of it. If transplanted elsewhere, there is no question that we would not have the impact on public policy that we have worked so hard to achieve. Public education initiatives and partnerships would likely suffer, and our ability to find professionals to provide membership services would decline. As treasurer, I am skeptical of anything that costs money. Yet, even I must admit that the services provided by the Washington office are critical to our goals, and that D.C. is the place to be.

Jeffrey Altschul, treasurer of SAA, is president of Statistical Research, Inc. in Tucson, Arizona.



Philadelphia

Philadelphia 2000

Anthony J. Ranere

It's been 20 years since Philadelphia last hosted a SAA Annual Meeting, so some reintroduction to the membership seems in order. The city is, of course, accustomed to hosting gatherings, including the First Continental Congress (1774), the Second Continental Congress (which adopted the Declaration of Independence), and the Constitutional Convention (1787). The tradition lives on as we enter the new millennium with Philadelphia not only hosting the SAA Annual Meeting in the year 2000, but the Republican National Convention (even though 80 percent of the registered voters in Philadelphia are Democrats). Through a combination of careful planning and good fortune, there is still a great deal to see in the city which reflects the glory years of the late 18th century when Philadelphia was the second largest city in the British Empire (London was the largest) and then for a time the largest city and first capital of the United States. The buildings, museums, streets, and alleyways in and around Independence National Historical Park, just a few blocks from the Philadelphia Marriott Hotel, the SAA conference hotel, are not to be missed.

But, to paraphrase a popular car ad, today's city is not your forefathers' Philadelphia; it is not even the city some of you might have visited for the 45th Annual Meeting in 1980. The city has added a skyline (before 1984, no building could be higher than the bronze statue of William Penn which sits atop City Hall), rejuvenated the "Center City" area (with expanded shopping, a new convention center, and new hotelsincluding our conference hotel), established an "Avenue of the Arts" (which combines venerable institutions like the Academy of Music with new musical and theatrical venues), witnessed a spectacular restaurant renaissance, and developed a lively nightlife. Falling within the SAA meeting dates is "First Friday" (of the month) when art galleries in the Old City section of Philadelphia (within walking distance of the Philadelphia Marriott) are open at night and host crowds of people who sometimes buy art, but mostly look at the galleries and showrooms. Many stay on to dine, drink, and be entertained at the neighborhood establishments.

Some factoids about Philadelphia:

Where Will You Be in the Year 2000?

Winifred Creamer

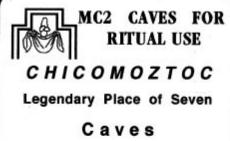
No matter where you spend New Year's Eve, plan on spending April 59 in Philadelphia, at the 65th SAA Annual Meeting! In addition to a fine meeting hotel, the schedule will have the variety of presentations on all of the world, regions theories, methods, and tools that archaeologists work with. The number of abstracts submitted for the 2000 meeting is similar to what we have seen in recent years, and we are hoping for recordbreaking attendance at this east coast meeting in Philadelphia. All of our members in the Boston-to-Washington corridor will have a direct route to the meeting.There are both familiar features and a few new ones planned for the upcoming meeting. Generous sponsorship of the roundtable luncheon will make the cost reasonable for all participants. Topics range from art to owning your own consulting business. Meeting sessions will include contributed papers, symposia, and forums. New to the program is a session of papers that will be circulated electronically before the meeting. SAA members will be able to read the presentations in advance on a website. At the meeting, papers will not be presented, but after opening remarks, a floor microphone will allow audience members to discuss the session's theme with the presenters. We hope this will provide more time discussion and question-andanswer. The Annual Meeting is a great time to see friends and keep up your

- It is the second largest city on the East Coast and fifth largest in the United States, with a metropolitan population of nearly 6 million.
- It is located 100 miles south of New York, 133 miles north of Washington, D.C., and 55 miles west of Atlantic City.
- The Philadelphia region is second to Boston in having the largest number of colleges and universities (49) in the United States.
- The city has both the first botanical garden (Bartram's Garden, opened 1872) and the first zoo (the Philadelphia Zoo, chartered in 1859 and opened in 1874) founded in America. Both are still open to the public and worth the visit. ·

Anthony J. Ranere, chair of the Annual Meeting 2000 Local Advisory Committee, is chair of the Department of Anthropology at Temple University in Philadelphia.

contacts, and even make some new ones. Encourage your students to participate in the meeting presenting a volunteering paper, (which will keep their costs down), and listening to what their future colleagues are doing. Let's make this meeting the best yet. ·

Winifred Creamer, chair of the Annual Meeting 2000 Program Committee, is an associate professor in the Department of Anthropology at Northern Illinois University in DeKalb.



This study begins in Central Mexico as Illustrated on the Map of Cuauhtinchan No. II.

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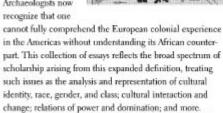
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COSWA Corner

Rita Wright and Mary Ann Levine

This article seeks to introduce our readership to the current composition of COSWA and to report on the completion of two recent projects undertaken by committee members. We include information on our newly constructed website as well as a report by Pamela R. Willoughby on her three-year study of recent hiring and tenuring practices in academic archaeology as recorded by the journal *Lingua Franca*. We offer this information as part of our commitment to the collection and dissemination of information on the current status of women in our profession.

Spotlight on COSWA Members COSWA consists of 10 members, including the chair. At the 1999 Annual Meeting in Chicago, Sarah Nelson and Alison Wylie began their three-year appointments while Margie Green, Johnna Thackston, and Pamela R. Willoughby completed their terms. The appointment of COSWA's 10th member is pending approval of SAA's Board of Directors. Listed below are the current members, with information on their term durations and interests. As the composition of the committee changes annually, we encourage you to contact Rita Wright (rita.wright@nyu.edu), COSWA chair, if you have an interest in joining.

COSWA Members:

- Elisabeth A. Bacus, 2001 (University College London, e.bacus@ucl.ac.uk): Gender and minority equity issues; Southeast Asian archaeology, complex societies, political economy, gender, ceramics.
- Cathy Lynne Costin, 2001 (California State University-Northridge, cathy.l.costin@csun.edu): Educational equity and quality of life issues; interim chair of the Women in Archaeology Interest Group. Gendered divisions of labor, evolution of gender systems, craft production, late prehispanic Andes, ceramics, textiles.
- Lisa M. Frink, 2001 (University of Wisconsin-Madison, lmfrink@students.wisc.edu): Arctic archaeology, hunter-gatherers, women's labor.
- **Johna Hutira**, 2000 (Northland Research, Inc., archeobot@aol.com): Status of women archaeologists in CRM, Southwestern archaeology, archeobotany, public education.
- Mary Ann Levine, 2001 (Franklin and Marshall College, M_Levine@acad.fandm.edu): History of women in Americanist archaeology in the late 19th century and early 20th centuries, contemporary equity issues, Northeastern archaeology, hunter-gatherers, native copper.
- Sarah Milledge Nelson, 2002 (University of Denver, snelson@du.edu): Gender in archaeological interpretations, equity issues for women archaeologists, and the relationship between the two; archaeology of Korea and northeast China, neolithic to early bronze age.

- Barbara J. Roth, 2000 (Oregon State University, broth@orst.edu): Gender and the adoption of agriculture in the American Southwest, Southwestern prehistory, hunter-gatherers, lithic technology.
- Rita P. Wright, 2001 (New York University, rita.wright@nyu.edu): Gender equity, chilly climate issues, and gender in archaeology. Technology and material culture, urbanism and complex societies, South Asia and the Near East.
- Alison Wylie, 2002 (Washington University in St. Louis; awylie@artsci.wustl.edu): Philosophy of science (social and historical sciences, especially archaeology); feminist theories of science; ethics issues in archaeology.

Construction of COSWA Website Complete We are pleased to announce that information pertaining to COSWA is now available online and easy to locate! After accessing the SAA Home Page (www.saa.org), click on Society, click on Committees and Task Forces, and then click on COSWA. From there you can access a list of members, information on the history and goals of COSWA, a description of the Women in Archaeology Interest Group, as well as a link to the AAA COSWA. Rita Wright, largely responsible for initiating and executing this project, welcomes your suggestions for improvement.

Rita Wright, chair of COSWA, is associate professor of anthropology at New York University. Mary Ann Levine, member of COSWA, is assistant professor of anthropology at Franklin and Marshall College.



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A Lingua Franca Report

Hiring Practices in Archaeology

A Lingua Franca Report

Pamela R. Willoughby

Lingua Franca: The Review of Academic Life is published nine times per year by University Business in New York City and includes articles on education, university culture, the effects of changing curricula, and the rise and fall of "star departments" in a variety of disciplines. Its focus is literary, with a postmodern slant. What makes it of wider appeal is that it is filled with gossip about the state of universities and education in general; a good internal feud is never ignored. The publication might be of limited interest to most archaeologists, except for one thing. Once a year, in their February issue, Lingua Franca publishes a list of "who gets hired where." This section, called "Jobtracks," provides much useful information that can be used to study gender-based equity issues across a number of professions, including archaeology.

Lingua Franca collects information on hiring in liberal arts and sciences at 600 universities and 4-year colleges in the United States and Canada. Before 1998, some information on hiring was provided in every issue (junior hirings in anthropology, archaeology, and folklore were published in February, granting of tenure in these fields in November). Now all information is published in the February issue. The tables are listed by subject entry, so

anthropology, archaeology, and folklore are grouped together. Individuals are then listed by the university where they received their Ph.D. Three hiring categories are reviewed separately: (1) "junior hirings," representing professors hired into an initial tenure-track appointment; (2) tenurings, meaning tenure granted by one's own institution; and (3) hirings to tenure, listing people who are leaving one institution for a tenured position at another.

Table 1. Junior Hirings (initial tenure-track appointments)				
	# Archaeology Positions			
	Archaeology,			
Lingua Franca Issue	Anthropology,	# Females		
#	and Folklore	(percent)	# Males (percent)	
	13 / 110			
February 1999	(11.8%)	5 / 13 (38.4%)	8 / 13 (61.5%)	
February 1998	9 / 60 (15.0%)	2 / 9 (22.2%)	7 / 9 (77.7%)	
February 1997	16 / 96 (16.7%)	7 / 16 (43.7%)	9 / 16 (56.3%)	
November 1996	not applicable			
	38 / 266			
Totals	(14.3%)	14 / 38 (36.8%)	24 / 38 (63.2%)	

Table 2. Tenurings				
Lingua Franca Issue	# Archaeology Positions Archaeology, Anthropology,	# Females		
#	and Folklore	(percent)	# Males (percent)	
February 1999	10 / 53 (18.9%)	3 / 10 (30%)	7 / 10 (70%)	
February 1998	10 / 50 (20%)	4 / 10 (40%)	6 / 10 (60%)	
February 1997	not applicable			
November 1996	12 / 46 (26.1%)	2 / 12 (16.7%)	10 / 12 (83.3%)	
Totals	12 / 46 (26.1%)	9 / 32 (28.1%)	23 / 32 (71.8%)	

Table 3. Hirings to Tenure (people hired with tenure)					
Lingua Franca Issue	# Archaeology Positions Archaeology, Anthropology, and Folklore	# Females (percent)	# Males (percent)		
February 1999	0 / 15 (0%)	0 / 0 (0%)	0 / 0 (0%)		
February 1998	1 / 15 (6.7%)	0 / 1 (0%)	1 / 1 (100%)		
February 1997	not applicable				
November 1996	2 / 11 (18.1%)	1 / 2 (50%)	1 / 2 (50%)		
Totals	3 / 41 (7.3%)	1 / 3 (33.3%)	2 / 3 (66.7%)		

In 1996, COSWA began to collect data on hiring practices in archaeology as reported by *Lingua Franca*. The journal provides information on who was hired, where they were hired, and where the individual earned their PhD. More information about individuals was then acquired from the annual *AAA Guide to Departments of Anthropology*. This allowed us to determine the number of archaeologists in these listings and these individuals' area of specialization.

The information presented in *Lingua Franca* is not exhaustive. For example, *Lingua Franca* only includes hirings in North American universities and colleges. In addition, not all individuals or colleges are listed in the *AAA Guide*, so sometimes it is impossible to verify who is an archaeologist. Often, new hires appear in the *AAA Guide* a year or two late. Despite these problems, we now have three years of data, organized by hiring category, name, area of specialization, where the individual studied, and year that the Ph.D. was granted. The basic information is summarized in the following three tables. Table 1 shows that 38 archaeologists have been hired into tenure-track positions in the last three years. Of these, 14 are women, and 24 are men. Over the same three-year period, a total of 266 individuals have been hired in anthropology, archaeology, and folklore; the archaeologists compose 14.3 percent of this total. Table 2 shows that 32 (of 149, or 21.5 percent) archaeologists have been tenured in the same period, 9 women and 23 men. Table 3 shows that only 3 archaeologists have been hired with tenure out of a total of 41 individuals.

In 1997, Melinda Zeder (*The American Archaeologist: A Profile*, AltaMira Press) published the results of the 1994 survey of SAA members. Respondents were grouped into categories on a number of factors including age, gender, area of employment (academic, private, museum, government, etc.). When examined in detail, it is clear that fewer archaeologists are employed in academic positions than in preceding decades. But in the younger cohorts (under age 40), more women than men are being hired into academic positions (Zeder 1997: 50). While this seems to be good news, Zeder also reports that more than three-quarters of women completing their education in the 1990s obtain the Ph.D., but less than one-third of them secured positions where having a Ph.D. is a requirement. Others remain marginalized in visiting or temporary positions, or are unemployed (Zeder 1997: 57, ix).

Our results show that 36.8 percent of the 38 individuals recently hired into tenure-track positions in archaeology are women while 63.2 percent are men. While many people are being trained as archaeologists, only a few academic positions have opened up. Perhaps more individuals are working as archaeologists outside of universities and colleges, in areas such as government or cultural resource management.

COSWA will continue to collect data on hiring. If you have any additional information to provide, contact COSWA or Pamela R. Willoughby, Department of Anthropology, University of Alberta, Edmonton, Alberta, Canada, T6G 2H4, or email: Pam.Willoughby@ualberta.ca.

Pamela R. Willoughby is associate professor in the Department of Anthropology at the University of Alberta



Public Education Committee -- Update

Teresa L. Hoffman

Marketing Subcommittee to Assist Washington Office -- Organized during the 1999 SAA Annual Meeting in Chicago, this subcommittee was created to assist the SAA Washington, D.C., office in marketing PEC products. The first tasks the subcommittee has focused on are compiling a mailing list and developing a marketing plan that can be used to promote and sell the new publication series. A preliminary marketing plan was developed during a summer meeting among Elizabeth Foxwell (SAA manager, publications), Dorothy Krass (former manager, SAA public education), and Renata Wolynec (subcommittee chair). All marketing activities will be coordinated through the SAA Washington office. The PEC's new monograph series, Teaching with Archaeology, debuts this fall with *History Beneath the Sea: Nautical Archaeology in the Classroom*.

Native American Education Assesses Accomplishments -- Building on the success of their SAA-sponsored workshops for Native American educators, the Native American subcommittee is assessing its accomplishments and discussing future workshop plans. A strategic plan is in progress, along with plans for a participant newsletter later this fall.

Teresa Hoffman, associate editor for PEC, is with Archaeological Consulting Services in Tempe, Arizona.

Send Us Your Posters!

SAA's Public Education Committee and the Council for Affiliated Societies invite you and your state or city to participate in "Celebrate Archaeology 19992000" at the 65th Annual Meeting in Philadelphia. If you know of a terrific archaeology poster published to commemorate an Archaeology Day, Week, or Month between April 1999 through March 2000, send it in before March 3, 2000. All posters will be displayed at the meeting, and awards will go to the top three "best" posters, as determined by a vote of participants at the meeting. See the 1999 winners on the Web at www.cr.nps.gov/aad/statearc.htm. Send two unmounted and unfolded posters from your state to DanHaas, State Archaeologist, Bureau of Land Management, 2850 Youngfield St., Denver, CO 80215, tel: (303) 239-3647, email: Dan_Haas@co.blm.gov. If the posters arrive in a damaged condition, participants will be asked to send a new set. The contest is sponsored by the Archaeology Week and Network subcommittees of the Public EducationCommittee and the Council of Affiliated Societies.

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Scholarships

for Native Peoples from the United States and Canada

The Society for American Archaeology (SAA) is pleased to announce the SAA Arthur C. Parker Scholarship and National Science Foundation (NSF) Scholarships for Archaeological Training for Native Americans and Native Hawaiians for the year 2000. Together, these scholarship programs will provide four awards of \$3000 each to support training in archaeological methods, including fieldwork, analytical techniques, and curation.

These scholarships are intended for current studentshigh school seniors, college undergraduates, and graduate studentsand personnel of tribal or other Native cultural preservation programs. High school students must be currently enrolled as seniors to be eligible. Undergraduates and graduate students must be enrolled in an accredited college or university. Native Americans and Pacific Islanders from the United States, including U.S. Trust Territories, and Indigenous peoples from Canada are eligible for these scholarships. While documentation of Native identity is required, an individual does not have to be enrolled in a Native group, of certified Indian status, or a member of a group formally recognized by the U.S. or Canadian federal governments to be eligible for these scholarships.

These scholarships will support attendance at training programs in archaeological methods offered by accredited colleges or universities. Other types of archaeological methods training programs will be considered on a case-by-case basis. The scholarship awards may be used to cover tuition and expenses. The cost of tuition for an award recipient will be paid directly to the training program.

The SAA Arthur C. Parker Scholarship is named in honor of the first president of SAA, who served from 1935 to 1936. Parker was of Seneca ancestry through his father's family, and he spent his youth on the Cattaraugus Reservation in New York. The NSF Scholarships for Archaeological Training for Native Americans and Native Hawaiians are made possible by a grant from the NSF to SAA. The SAA Parker Scholarship will provide \$1500 for one scholarship recipient, which will be matched by a \$1500 NSF Scholarship. Three additional scholarships of \$3000 each will be funded by the NSF Scholarships for Archaeological Training for Native Americans and Native Hawaiians program.

Application/Nomination Procedures

Individuals may apply for these scholarships themselves, or they may be nominated by a current professor, high school teacher, or cultural preservation program supervisor. All of the following must be submitted for applicants and nominees:

- (1) A completed Application/Nomination Form.
- (2) A letter of nomination or recommendation. For students, this should be from a current professor or high school teacher; for cultural preservation program personnel, this should be from a current supervisor. This letter should be sent with the other application/nomination materials enclosed in a separate, sealed envelope, with the signature of the nominator or recom-mender across the seal.
- (3) A personal statement from the applicant/nominee of no more than one page in length, single spaced, describing why he or she is interested in attending the archaeological methods training program and how this training will benefit the applicant/nominee as well as his or her Native community.
- (4) A brief description of the archaeological methods training program of no more than one page in length, single spaced. Include the name and address of the sponsoring institution and the dates during which the training program will take place.
- (5) An itemized budget, including tuition and expenses associated with attending the training program, such as travel, food and housing, books, equipment and supplies, and child care, among others. Indicate the source(s) and amount(s) of other funding for which the applicant/nominee has applied.
- (6) Documentation of Native identity by either: (a) documentation of tribal enrollment, if a member of a federally recognized tribe in the United States, or documentation of certification of Indian status recognized by the federal government of Canada; or (b) a statement of no more than one page in length, single spaced, outlining the applicant's or nominee's Native ancestry, which must be

supported by a brief acknowledgment from a current department chair, faculty adviser, or high school teacher (for students), or a current supervisor (for cultural preservation program personnel).

Deadline

The Application/Nomination Form and all supporting materials should be submitted together in one envelope and must be postmarked no later than February 15, 2000.

The applicant/nominee need not be formally accepted into the archaeological methods training program at the time the application/nomination materials are submitted. However, a scholarship will not be awarded until the designated recipient has been accepted into the training program.

Submission and Contact Information

Send all application/nomination materials to Scholarship Applications, Society for American Archaeology, 900 Second St. NE #12, Washington, DC 20002-3557.

For an Application/Nomination Form, help with locating a field school or other training program, or further information about these scholarships, contact SAA at the address given above, or tel: (202) 789-8200, fax: (202) 789-0284, email: info@saa.org. Your questions will be relayed to someone who can assist you.

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Public Relations Committee --

Gene S. Stuart Award

A'ndrea Elyse Messer

In previous issues of the *SAA Bulletin*, the Gene S. Stuart Award has been described and SAA members have been invited to encourage nominations. A special circumstance, reflecting the geo-economics of Annual Meeting sites, increases the importance of your assistance this year.

In 1993, at the suggestion of the Public Relations Committee, the Society instituted an award to be presented annually to a journalist who had written an outstanding article on an archaeological topic in a large-circulation, daily newspaper. By addressing nomination requests to the editors of such papers, we hope to encourage responsible and effective coverage of archaeology.

The award is named to honor the late Gene Stuart, a prolific author and managing editor of *National Geographic Books*, who was devoted to presenting archaeology in high-quality, popular books. Among the books she coauthored with George E. Stuart are *Discovering Man's Past in the Americas* (1969) and *The Mysterious Maya* (1977).

Although intended to be a national, even international, award, practical considerations have compelled us to restrict potential entrants to the region of the Annual Meeting. The 1999 Stuart Award recipient was William Mullen of the *Chicago Tribune* [SAA Bulletin 17(3): 18]. Given the locations of our meetings in the six years the award has been offered, journalists from Midwestern states have had two opportunities to apply for the award. Journalists from eastern states have had none.

In the *fin de millénaire* year of 2000, our Annual Meeting in Philadelphia is the first in the "Northeast" since the 1980 meeting. Given the economics of meetings in that region, it may well be another two decades before we return. To ensure that writers and editors in that area have one opportunity to learn of SAA's appreciation of their attention to archaeology, the Stuart Award Committee has expanded the geographic reach of the 2000 award to include New England and the Mid-Atlantic states and two Canadian provinces (see page 16).

We ask SAA members in the target region to help us reach out to journalists. We shall send nominations to newspaper editors. If you read or have read high-quality newspaper articles written this year, especially if those articles are about your own research, please contact the authors and encourage them to apply for the Stuart Award. We emphasize that the writer or newspaper editor must submit the entry.

In terms of content, the criteria for the Stuart Award are straightforward and open-ended. A writer or editor may submit up to five single articles or a series of a maximum of five related articles on any archaeological topic without any geographical or temporal restrictions. Award-winning stories have focused upon such topics as the looting of sites, ethical issues in the recovery and investigation of human remains, and graffiti at Luxor Temple, Thebes. Subjects should be presented so that they foster public understanding of and appreciation for the goals of archaeology.

Procedural criteria for the 2000 award are as follows: The story must appear as an original article during calendar year 1999, in a daily newspaper with circulation of at least 25,000, published within the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, Virginia, and West Virginia and the provinces of Ontario and Quebec; the entrant must submit six copies of each article or series to the address below by January 15, 2000.

The Stuart Award Committee, composed of David Pendergast, chair; Anntoinette Moore, member, Public Relations Committee; Roy Blackwood, professor of journalism; and Alan Brew, professor of anthropology, asks for your help in recognizing and fostering high-quality, general-interest writing about archaeology.

Nominations and all inquiries should be sent to Alan P. Brew, Anthropology Program, Bemidji State University, Bemidji, MN 56601-2699, tel: (218) 755-3778, fax: (218) 755-2822, email: albrew@vax1.bemidji.msus.edu.

A'ndrea Elyse Messer, a member of SAA's Public Relations Committee, is science and research information officer for the Department of Public Information at Penn State University in University Park.



The Register --

News from the Register of Professional Archaeologists

-- EAA Conference Review

Charles M. Niquette

The Fifth Annual Meeting of the European Association of Archaeologists was held in Bournemouth, England, on September 1519, 1999. Berle Clay and I attended as representatives of the Register of Professional Archaeologists. Presently, European archaeology is very similar to our own experiences in the middle 1970s and early 1980s, but yet it is unique and diverse in so many ways. Areas of concern to European archaeologists sound all too familiar: how to define significance, the need for well-justified research designs, the need for standards, and the academic cries of despair over private sector, contract-driven research. To facilitate the reader's understanding of Europe's diverse approach to our discipline, a thumbnail sketch is provided below of the current status of archaeology in that region of the world. This is followed by suggestions regarding possible roles the Register might play in helping to achieve global ethical standards for the conduct of archaeological research.

European Diversity

In the U.K. and Portugal, there are no criteria for determining who is and is not a qualified archaeologist. To compensate, members of the profession in England have created the Institute of Field Archaeologists (IFA). It is about 1,500 strong and appears to be modeled after SOPA. It has a code of ethics and a grievance procedure. This group appears to be taking the lead for setting standards in European archaeology.

County archaeologists in the United Kingdom play a role very similar to our own SHPOs. These regulatory authorities review permit applications for proposed construction projects and decide whether or not archaeology might be required in advance. If a positive decision is reached, the county archaeologists prepares a "brief" (scope of work) to be used by the developer in securing the assistance of an archaeologist. Contract archaeologists in the United Kingdom respond to briefs with a "tender" (proposal and cost estimate). Such contract archaeology is relatively new in the United Kingdom in that the centerpiece preservation legislation was passed only in 1990. At the beginning of this decade, the Crown subsidized much of the archaeology completed in southern England. This was done by regional "units" in Wessex, Oxford, and London. Recently, all three units have been privatized and now serve in a not-for-profit capacity.

To practice archaeology in the Republic of Ireland, one must hold a degree or an advanced degree and have a significant amount of Irish archaeological excavation experience. The government license to practice is only awarded to archaeologists who sit through an interview with *Dúchas*, the Heritage Service. The *Dúchas* is an agency of the Irish government's Department of Arts Heritage, Gaeltacht, and the Islands. The interview deals with all sorts of practical issues, such as planning law, National Monuments law, ways to handle private sector field evaluations, and other similar issues. Depending upon the applicant's experience, license eligibility can be restricted to certain date ranges and certain types of archaeology (e.g., medieval, urban/medieval, rural/prehistoric, rural/underwater archaeology). Applications for licenses are only made by license-eligible individuals. They are solely responsible for the quality and presentation of their material. Therefore, in a subcontracting scenario a company sometimes has little control over the quality of the outcome and has no say

on how or where the archive is presented and stored. In the past two years, because it also has gone the other way (i.e., under funding by main contractors in excavation and post-excavation scenarios), *Dúchas* seek the name of the company as a signatory to the license. To compensate, the more professional Irish CRM firms advocate an integrated professional practice as a way of exercising quality control and conducting good work.

The Irish license system can be hugely restrictive and very unfocused on the necessary operation approach to project. According to one Irish archaeologist, "poor, financially driven, archaeology is being practiced here under cover of license requirement (i.e., monitoring of construction processes, such as road pipe-laying) which can have a negligible return to the archaeological record." The same archaeologist told of a 1997 conference that reported, "35 percent of all monitoring licenses/notified jobs had not resulted in any form of report to *Dúchas*." No calculations were offered regarding the "quality of the archaeological outcome in the remaining 65 percent of cases."

In Ireland, there also is a license system required to do contract archaeology. Each different field methodology to be employed in a given contract is addressed by this system, one for geophysical survey, one for augering, another for "trial excavation" (e.g., exploratory digging completed for evaluation purposes), etc. In each case, a well-founded methodological statement is required that defines the precise activity to be performed, the results of similar efforts in similar situations, and text and maps portraying those portions of a study area for which the technique is proposed.

The *Dúchas* is understaffed. Seven or eight people review more than 4,600 license applications a year, serving the role of an A-95 review coordinating office. As such, they decide whether or not archaeology is required. One individual with an assistant also reviews approximately 400 archaeological licenses annually. As a result, it takes at least three to four weeks to process a license, and delays can be expected in obtaining permits. On the other hand, once the appropriate permits are issued, the work is completed and the final reports are submitted. The latter are rarely reviewed unless they form the basis for an impact assessment in a planning context. In these cases, they are reviewed by one of the seven or eight staff employed for that purpose. But delays can, and do, occur as adjudication takes place. The delays pose tremendous problems for developers and project proponents.

In Germany, an advanced degree and membership in a variety of labor union choices, none of which is specifically an archaeological union, is required to practice archaeology. The country is divided into three regions and 16 separate, autonomous states. Of the latter, only four require consideration of archaeology prior to construction projects. Each has different regulatory bodies and regulations. Much of the work appears to be salvage related without regard for analysis and reporting.

In contrast, Austria requires practicing professional archaeologists to be members of the state-level archaeological organization or chamber. Membership requires an advanced degree and fee. Failure to adhere to the standards code may result in expulsion from the chamber and would have serious ramifications for one's potential future and ability to practice archaeology in that country.

In the Netherlands, all archaeological work is controlled by the government. There is a dichotomy whereby survey and testing can be done by private-sector archaeologists, but excavations are done by the government archaeological unit and university-based archaeologists. This system will be abandoned next year under new legislation that will allow private enterprise and introduce a system of quality control. This will include a national register, to be maintained by the Nederlandse Vereniging van Archeologen (Dutch Association of Archaeologists, a.k.a., NVvA), but with a legal basis.

In Estonia, as might be expected, things are a bit frenetic. Since separation from the former Soviet Union, there has been an attempt at setting standards by the Society of Archaeology. It is not a professional organization, however, and most work seems to be rescue or salvage in nature.

Norway has very, very strong preservation laws. Despite these laws, it is difficult to gain employment as an archaeologist because of the power of the labor unions. Work is done by the government (Norwegian Museum Association) which tends to have very strict requirements for professional qualifications. These include many years of experience and holding a Ph.D. The County Councils of Norway are responsible for the vast majority of

the work done in the country. Interestingly, there is a national board that acts as an adjudicatory body. If political decisions that adversely effect archaeological remains are made at a local level, individual archaeologists are required to report these to the national board. Presumably, the board then investigates the matter and has the power to reverse such decisions.

French archaeologists went on strike last year because the government determined that French archaeology would be subject to free-market economy. The archaeological community opposed this move because they felt this would lead to CRM-driven archaeology that was not research. The government's decision was subsequently reversed. As a result, all CRM archaeology in France is currently completed by a state monopoly, the Association Française d'Archéologie Nationale (AFAN). French archaeologists assume that this will guarantee the research quality. In addition, they believe the "cultural exception" in European Union law allows them to take this action (see below).

Italy seems to be fairly open and without strict government regulations. Italy and Portugal seem to be the most promising countries in which to start CRM companies similar to those in the United States, for I believe these countries lack the state-level restrictions (such as those in France) that would prevent one from practicing archaeology in these two countries.

The Challenges of the European Union

Given this diverse background, participating countries in the European Union (EU) are on the verge of a huge change that has far-reaching ramifications for nearly all aspects of life. As of January 1, 2001, the EU will be fully operational. At that time, state restrictions that inhibit free exchange of goods and services and the ability of individuals to move from one country to the next will vanish. The latter is already occurring since citizens from EU countries must be considered with the same status as nationals. This could mean that an archaeologist in France will be free to practice his/her trade in Ireland, Norway, or England, and vice versa. However, the EU has only very limited powers in the field of culture and the "cultural exception" in EU law may prevent this rule from being applied to archaeology. The professional community is aware of the potential difficulties posed by the "cultural exception" and is attempting to deal with them. One route is to establish standards for conducting European archaeology.

Setting Standards for European Archaeology

During a conference session on setting standards for European archaeology, there were at least two schools of thought. One was to establish a "self-policing" system such as that used by the Registerthat is, an archaeologist should not conduct work for which he or she is not qualified. The other was to create appropriate levels and areas of competence such as the "emphases" employed by SOPA before its demise. I suggested that the Register could become a global vehicle by which to accomplish common objectives. In fact, if a decision were made down the road to incorporate "emphases," these could be added as regional requirements within and underneath the Register umbrella. Willem Willems, president of the EAA, indicated his support for the Register and said that Europeans had much to learn from the American model. Still, he was concerned that the Register'sand for that matter, American archaeology'sunique relationship with Native Americans detracted from its usefulness in Europe. Berle Clay and I suggested that NAGPRA was not specifically mentioned in the Register's Code and Standards, but there was a phrase to the extent that archaeologists should be respectful of Native American views.

Section 1.1c states that "An archaeologist shall be sensitive to, and respect the legitimate concerns of, groups whose culture histories are the subjects of archaeological investigations." This sentence could (and should) be applied anywhere in the world, especially in regions such as Africa, the Middle East, and Australia, where dealing with indigenous populations is a major concern (and one does not need to be a resident of those areas to do field research there). American archaeologists may have a unique relationship with Native Americans, but the issue of aboriginal concerns is hardly unique to the United States. The Code also states:

An archaeologist shall not engage in any illegal or unethical conduct involving archaeological matters or knowingly permit the use of his/her name in support of any illegal or unethical activity involving archaeological matters [1.2(a)].

This is another section of the Code that not only could be used in the United States for dealing with someone ignoring the provisions of NAGPRA or any cultural resources legislation, but could be used wherever such legislation exists and applies because of its general language. The only specific reference of this sort in the Code addresses compliance with the UNESCO Convention of 1970, which deals with international trafficking in cultural materials. There should be no problem in obtaining support for such a provision.

Conclusions and Recommendations

Willem Willems indicated to Bill Lees at the 1998 AIA meeting in Washington, D.C., and again to me in Bournemouth, that he expects that the European archaeological community will, necessarily, discuss the matter more thoroughly among themselves. Nevertheless, he believes that we all should work towards a global register of some kind. Willems' vision is to establish an organization in each country tailored to the needs and legal requirements of each nation. Moreover, he has suggested that a European umbrella-type structure may be required. Still, the Register is, in his opinion, a more suitable vehicle for this than any of the existing or developing systems. Willems is willing to investigate options to extend the Register to Europe, although this must not be done in haste. During our discussions in Bournemouth, Clay, Willems, and I all sensed that most attendees preferred to take some steps at the European level before moving to the global level. Apart from the Scandinavian countries, Portugal, and the Netherlands, we have to deal with persistent fears of "Anglo-Saxon dominance" in many other countries. In some instances (e.g., France and Spain), this sentiment verges on the absurd, but it still must be taken into account. Currently, such fears appear to be directed at the IFA but also can be anticipated if, and when, the Register begins to take a more active interest in European archaeological standards.

In the final analysis, the Register should make a concerted effort to maintain contact with the European community. To this end, Clay and I have volunteered to serve on an EAA working com-mittee on standards. Given the length of time it takes to gain EU acceptance, the Register should work with existing organizations (such as the IFA), those which have certification requirements for membership, and arrange automatic registration where appropriate. This would serve to increase the Register's membership, visibility, and ultimately, to promote its objectives and goals.

Charles M. Niquette, a registered professional archaeologist, is secretary/treasurer of the Register.



Student Affairs Committee--

Affording Philadelphia during the 2000 SAA Annual Meeting

Caryn M. Berg

For those who attended the SAA Annual Meeting in Chicago, you already know that it was one of the largest meetings ever. This means that the Annual Meeting in Philadelphia (April 59, 2000) is sure to be a huge success! For students, this means that there will be more archaeologists to meet, more research presented, and more opportunities for networking! As students, we all know that attending these meetings is important for integrating ourselves into our chosen profession. Unfortunately, however, it often seems financially difficult to attend these meetings and for many, Philadelphia seems so far away. Here are some ideas for making the meetings in Philadelphia a little more affordable!

General Tips

In the November 1998 *Bulletin*, Chad Gifford provided some general tips that will help you save money while at the meetings:

- Make a budget
- Volunteer to help at the meeting (Check www.saa.org/Meetings/volunteer.html or email Carlean Ponder at: carlean_ponder@saa.org)
- Drive to the meeting if you can or use the SAA air and train discounts for travel to the meeting (you must book 60 days in advance to get the airfare discount).
- Check with your university and see if you can receive a travel grant for presenting a paper.
- If you have a friend who lives in Philadelphia, invite yourself to stay!
- Find friends to help you share costs ask around your department, ask friends at other departments, and ask your friends to ask their friends. The archaeology student network is small so you should be able to find roommates if you put a little work into it.
- See if you can volunteer to help a publisher sell books to reduce your book-buying costs. The Student Affairs Committee organizes volunteers for AltaMira Press; for more information, contact Jane Eva Baxter at jejb@umich.edu.

Planning Ahead for Philadelphia

If you want to attend the meeting in Philadelphia, now is the time to start planning in order to save on costs! You may be saying to yourself, "It is only November; I have plenty of time." You have plenty of time to write your paper (if you plan to present) and to pack, but time flies when you are trying to find a roommate, sign up to volunteer, obtain those low transportation rates, and save the money to afford it all!

The best way to save on costs in terms of getting to and staying in Philadelphia are to reserve your room now! There are two places with great ratesthe Holiday Inn Express Midtown

and Philadelphia Marriott. Both hotels allow up to four people in the rooms, so start looking for roommates now! The Holiday Inn offers a free continental breakfast daily (this helps reduce your dining costs). The deadline for making student rate reservations at the Holiday Inn is March 10, 2000. For reservations at the SAA regular rate at the Philadelphia Marriott, the deadline is March 12, 2000. Don't miss those deadlines!

If you don't live near an Amtrak station or if you are not close to an airport with a USAirways terminal (the official airline for the meeting), you need to look for alternative transportation. You can contact a travel agent for this if you don't want the hasslemany travel agents near campuses are willing to put together great deals. You also can look for discount fares at **www.travelocity.com**. This site is a great resource for affordable travel if you are unable to use the SAA discounts available to you.

Affording Philadelphia

Philadelphia is like most big cities -- there are dozens of sites to visit and hundreds of places in which to drink and dine. Like any big city, the costs of sightseeing and dining have a broad range in Philadelphia, although they can kill your budget if you are not careful! There is an incredible Web site available at www.gophila.com to help in planning your budget for Philadelphia. This Web site contains everything you need to know and more. You will find restaurant lists in every price range and of every variety, ranging from delis that serve Philly cheesesteaks to Thai restaurants. You will find information about nightclubs ranging from jazz to rock, and there also is a calendar of events and information about tours, restaurants, and sports. If you decide to take a trip outside of Philadelphia before or after the meeting, you will find extensive information about hotels and lodging in the vicinity. It is a great site for planning an April trip to Philadelphia! If you want even more information about what to expect on a budget in Philadelphia, check out www.libertynet.org/phila-visitor/. This is the site for the Philadelphia Convention and Visitor's Bureau and is another great resource for city information (and for maps if you are driving to Philly).

You can afford to attend this Annual Meeting if you start planning for it early. If you start looking for roommates, take the time to browse the Philadelphia Website, create a budget, and start savingthe cost of the meeting will seem less ominous. You are still going to spend some money but it is worth every penny in the long run!

As an aside, the Student Affairs Committee has featured several articles in past issues of the *Bulletin* relating to having a successful meeting experience. If you decide to go, be sure to sign on to SAAWeb (**www.saa.org**) and peruse the *Bulletin* archives.

- Getting Graphic! Making an Effective Poster, Jane Eva Baxter, November 1996
- Presenting -- What an Experience!, Eden A. Welker, January 1997
- Making the Most of Your SAA Meeting Experience (Or, How NOT to be a Wallflower in Seattle), Jane Eva Baxter and Gordon F. M. Rakita, January 1998
- The Annual Meetings Can be Affordable, Clarence H. Gifford, November 1998.

I hope to see you in Philadelphia!

Caryn M. Berg, a doctoral candidate at the University of Colorado at Boulder, is the chair of the Student Paper Awards Committee.





The Digital Imprint Project:

Standards for Digital Publishing in Archaeology

Louise Krasniewicz

While many archaeologists have adopted personal computers for their data processing and writing, the use of digital media to actually present research findings to both professional colleagues and the public is still uncharted territory. There have been some valuable forays into the digital publishing of archaeological research in the past few years, including *Excavating Occaneechi Town: Archaeology of an 18th-Century Indian Village in North Carolina* (1998, R. P. S. Davis Jr., P. C. Livingood, H. T. Ward, and V. P. Steponaitis, University of North Carolina Press, Chapel Hill, N.C.); *Combe Capelle on CD-ROM*, (1995, H. Dibble and S. McPherron, University Museum Press, Philadelphia); and *Zoom-In to Madisonville* (1998, P. B. Drooker, University of Michigan Museum of Anthropology, Ann Arbor, Michigan). Each of these is an effort to utilize the potential of a medium that offers extraordinary opportunities for organizing, accessing, and presenting the vast array of media generated by an archaeological project.

The potential for archaeological research is significantfor the first time, many more scholars could have access to primary data, providing opportunities for multiple analyses of datasets. Digital publishing can facilitate multidisciplinary analyses by making primary data more widely and easily available. It also can help archaeologists meet their professional responsibility of publishing their work in a timely manner and for multiple audiences, from professional colleagues to the general public.

While the value of digital publishing is beginning to be widely recognized, several factors have prevented it from becoming commonplace. Certainly access to trained personnel and the appropriate production equipment are still not widely available to all researchers and the cost of original productions is still high. But a new generation of computer-savvy students and faculty, as well as the wider availability of powerful desktop systems, makes these obstacles increasingly easier to overcome.

What more significantly has not been available in archaeology is a coordinated effort to establish guidelines for archaeologists who want to present their primary research in digital form. A digital monograph may include interpretive essays, interactive databases, thousands of illustrations and photographs, animations, virtual reality, interactive panoramas, and curricular materials. Standards for organizing and presenting research in digital form are necessary to ensure that digital publications are professional, cross platform, consistent, and easy to use.

The Cotsen Institute of Archaeology at the University of California-Los Angeles (UCLA) (www.sscnet.ucla.edu/ioa/) has been working for two years on a project to develop standards for the digital publication of archaeological monographs. Funded by the Ahmanson Foundation and conducted in the institute's Digital Archaeology Lab (www.sscnet.ucla.edu/ioa/labs/digital/digital.html), this "Digital Imprint" project was initiated in response to this need to coordinate the efforts of archaeologists who are exploring digital publishing. The Digital Imprint project (www.sscnet.ucla.edu/ioa/labs/digital/imprint/imprint.html) hopes to encourage the development of standards that will be utilized, not only in its own projects, but also by

archaeologists nationwide. As archaeologists explore digital formats for disseminating site reports or sharing databases, images, typologies, maps or interpretive materials, guidelines for digital formats become essential, especially for those who do not have the expertise or resources to explore all the possible permutations of a digital project on their own.

The Digital Archaeology Lab

The Cotsen Institute of Archaeology at UCLA established the Digital Archaeology Lab in 1996 to examine the different ways to translate the research of the institute's faculty and staff into various digital media forms including commercial CD-ROMs, K-12 curricular materials, sites on the World Wide Web, and professional field reports published in hybrid disk/Web formats.

of called One the lab's projects, the "Virtual Archaeologist" (www.sscnet.ucla.edu/ioa/labs/digital/virtual/virtual.html), provides the experience of visiting an archaeological excavation with a UCLA researcher. Utilizing a 3D field lab as its interface, the "Virtual Archaeologist" series enables the visitor to conduct lab experiments, analyze artifacts, explore real databases, and take virtual reality tours of real archaeological sites where ruins can be excavated, measured, and recorded. The programs, on both CD-ROM and the Web, are to be used in California's mandated K-12 curriculum on ancient cultures. The Virtual Archaeologist will be a component of the "Portals to the Past" Website, also being developed in the lab. This Website provides teaching resources for the institute's outreach program to K-12 teachers who must implement the new state curriculum in the social sciences.

Other projects in the lab involve creating interactive panoramas and object movies (commonly known as QuickTime VR) for UCLA archaeological projects; designing 3D representations of archaeological sites; generating 3D models of artifacts; and instructing faculty, students, staff, and research associates in digital production.

Standards

In addition to serving the research and outreach needs of the institute, all the projects developed in the lab are used as a testing ground for the standards, protocols, and templates being developed for the Digital Imprint project. This provides an ideal laboratory to test out the feasibility of the Digital Lab's activities for other facilities and individuals. It should result in production standards for digital work that are workable, flexible, and easy to implement and modify.

Workable standards are agreed-upon rules, formats, and procedures that are designed to make shared information reliable, accessible, and consistent. Information standards are designed to protect the investment of time and money required for assembling and designing information storage and retrieval systems. Utilizing standards helps to ensure the long-term value of data which can be shared across systems, times, and even cultures, especially in the context of continually evolving technologies.

Technical, organizational, and design standards, which address different aspects of the construction of digital publications, will all be developed in the Digital Imprint project and utilized in its own productions. Technical standards guide the choice of file formats, operating systems, and multimedia players, most of which are defined by the computer industry but have to be selected by end-users like archaeologists. The Digital Imprint project has explored technical standards and will include recommendations in this area in the standards guidelines.

Organizational standards suggest how information needs to be authored, organized, updated, and verified in a publication. This is the behind-the-scenes work of the computer specialists, involving database design, asset management, interactivity, programming, and navigation tools. The how-to production manual developed in the Digital Imprint project will provide step-by-step instructions on most of the important aspects of production.

Design standards guide the development of interfaces and navigational tools for accessing data. While the concept of design may seem unnecessary for a professional publication, all information presentations are in fact heavily dependent on design elements. The position of paragraphs on a page, the choice of fonts for titles, color and shading for emphasis, the size and position of illustrationsall these affect how information is accessed and interpreted. The Digital Imprint project will provide templates that include a selection of these design elements for use in any archaeologist's digital publication.

Standards need to build on already common practices in a community. Thus, a standard cannot demand a dramatic shift in a user's understanding (for example, requiring all archaeologists to learn high-end computer programming). Nor does a good standard shift traditional practices so dramatically that they are intimidating (e.g., requiring all archaeologists to define "pot" in the same way). The Digital Imprint project keeps these important considerations in mind as it explores digital standards.

The Digital Imprint Project

The Digital Imprint project has four primary goals associated with the development and dissemination of digital publishing standards:

- (1) to develop, in consultation with archaeologists, publishers, museums, libraries, and the major professional organizations, a set of guidelines specifically for the digital publication of primary archaeological research;
- (2) to design dynamic templates that will be distributed free of charge to any archaeologist who wants to incorporate these guidelines into his or her own digital publication;
- (3) to develop a production manual that will provide a step-by-step guide through the details of digital publishing; and
- (4) to publish the first digital monograph in the Digital Imprint monograph series under the auspices of the Institute of Archaeology.

The development of standards is ideally a communal process that solicits ideas, opinions, and experiences from those who will both create and use the standards. In digital publishing, especially in archaeology, the publisher and end-user often can be the same. To this end, the Digital Imprint project formed the Working Group on Digital Publishing in Archaeology. The working group first met in Los Angeles in January 1999 to begin exploring the issues of both digital publishing and standards.

Represented at the meeting were the Archaeological Institute of America; Archaeology Data Service; the Center for the Study of Architecture; the Colonial Williamsburg Foundation; the Council for British Archaeology; the J. Paul Getty Museum; the Getty Trust; Learning Sites, Inc.; the National Center for Preservation and Technological Training; the Natural History Museum of Los Angeles County; the Oriental Institute; the Peabody Museum of Archaeology and Ethnology at Harvard University; the University of Pennsylvania Museum of Archaeology and Anthropology; the Society for American Archaeology; and Statistical Research, Inc. Academic presses at the meeting included the American School of Classical Studies, Internet Archaeology, the University of Arizona, UCLA, and the University of Pennsylvania. Universities included Arizona State, California (Los Angeles and Santa Barbara), Cambridge, Chicago, Fort Lewis College, North Carolina (Chapel Hill), and Pennsylvania.

This first meeting focused on the following issues:

- identifying the interest that archaeologists have in electronic forms of publication;
- evaluating structures for presenting databases, texts, and images;
- examining issues of navigation, interactivity and access to information in a professional report; and
- clarifying the differences between data archives and digital publications.

The discussions of the working group suggest that digital publishing standards must balance economy, timeliness, professionalism, accessibility, and ease-of-use. Some of the guidelines being developed will ensure that digital archaeology publications are peer-reviewed, multilingual, and cross platform (Mac and PC); have exportable and searchable databases; incorporate multiple media formats (video, audio, 3D, etc.); have a consistent and practical graphical interface; have standardized navigation and reference cues; are affordable to produce; require no licensing fees for users; can be regularly and easily updated and supplemented; and have print-out capabilities.

Instead of designing a system from scratch, the Digital Imprint project has been examining off-the-shelf software and low-end hardware that incorporates all these suggestions. Commercially available systems already have an established base of millions of users and it would be impossible or prohibitively expensive to attempt to match this with proprietary software or unique hardware delivery systems. Using off-the-shelf software in innovative ways rather than designing new software from scratch results in consistent, cost-effective, and cross-disciplinary publications. This move results in publications that highlight the research questions important to archaeologists rather than focusing attention on the technology used to deliver that information. In addition, it is important to keep the hardware requirements at the lower end of the computer spectrum to accommodate as many users and producers as possible.

The result of the project's experimentations has been a Web-browser and database combination that meets all the requirements for quality digital production and wide-ranging access to production as well as the final product. Specifically, the project is developing a template using Filemaker Pro[®] and Internet Explorer 4.x[®] with the Web browser presenting the graphical interface and the database program presenting entire datasets that can be searched, downloaded, and analyzed. The programs work seamlessly together; the browser is free and updates are easily accessible by every Internet user. Filemaker Pro[®] is inexpensive, especially for academics, versatile, and easy to use. Both the browser and database program are cross platform in both development and delivery.

Digital Templates and the Production Manual

These standards will be disseminated and implemented through both widely distributed templates and a production manual. The production manual will guide publishers in the details of digital production, from scanning and image processing to file formats, navigation design, naming protocols, file management techniques and all the other details required for a successful publication. The template will be a ready-to-use program that just requires the insertion of content. Both the production manual and a publication template should be available in printed form and online by January 2000.

The template will be flexible and modular with the goal of providing multiple routes of access to the data of the publication. Currently, the template enables direct access to the data of a project through five different routes: the text, databases, research themes, a tour, and M.A.P.S. (models, animations, panoramas, and schematic maps). A user can choose to take a linear path through the text section, linking to databases or illustrations as needed. Or a user can start with the complete and original databases and from there connect to other forms of data including the illustrations, research methods, or interpretive essays that relate to each database.

A 3D model of the site can be navigated to find the particular region of interest or traditional maps can have links to successively more detailed layers of information. Research themes and the tour enable a summarized version of the most significant features of the research. These capabilities are built into the distributed template and can be implemented as the author requires.

The production manual will enable novice producers to avoid the pitfalls of digital production which can be expensive, time consuming, and frustrating if tackled without guidance. It will document the results of the Digital Imprint project's experiments with innumerable interface designs, technical components, software and hardware combinations, and visual and organizational metaphors.

Details on the Working Group on Digital Publishing in Archaeology as well as the standards, production manual, and template will be available at www.sscnet.ucla.edu/ioa/labs/digital/imprint/imprint.html.

The Portals to the Past teacher's outreach Website will be available at **www.sscnet.ucla.edu/ioa/outreach/home.html**. Additional information can be requested from Louise Krasniewicz at kraz@ucla.edu.

Louise Krasniewicz is director of the Digital Archaeology Lab, Cotsen Institute of Archaeology, at University of California-Los Angeles.



Student Affairs Committee -- Feedback Section

Electronic Communication and the SAC

This month, the Student Affairs Committee (SAC) would like to hear from you about ways to improve communication between SAA and its student members and among the members of the student community. The SAC would like to develop its Web page into a useful resource for students to learn about SAA and opportunities for students in archaeology. We also would like to see the student-l listserv become an active place for student dialogue on a variety of issues ranging from professionalism to funding to networking for the Annual Meeting. To help us develop these lines of electronic communication, we need to hear from you. Please consider the following questions and send your feedback to the SAC either through your student representative or directly to one of our members.

Feedback Questions:

- (1) How often do you use the WWW as a means of gaining information related to archaeology? What types of information and resources are currently missing on the WWW that would be useful to students?
- (2) What types of information do you feel the SAC should provide for students on its Web page? Would a section devoted to links to other useful sites (e.g., funding sources, field schools, graduate programs) be a useful feature of the SAC page?
- (3) Do you currently subscribe to other archaeology lists online? What types of issues/topics would you want to discuss in an online student forum on archaeology?

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Looking Back--

"On Land Where the Indians Lived" Harry Martin Trowbridge A Wyandotte County Avocationalist

Steve Collins

Until the 1930s, the work of avocational archaeologists remained generally unsung. During that decade, *American Antiquity* began to praise the contribution of some amateurs to archaeology and encouraged their continued involvement in the field [W. C. McKern, 1938, Editorials. *American Antiquity* 3: 203205.] Where antiquarians and casual amateurs collected and commercialized artifacts, avocationalists focused their energies on building knowledge through archaeology. They professionalized their contributions, often consulting and working with trained archaeologists, and involved themselves in the national dialogues about the past. The work of Harry Trowbridge stands as a classic illustration of the avocational archaeologist.

Harry Martin Trowbridge (18881976) devoted his life to the practice of archaeology and the preservation of prehistory in Wyandotte County, Kansas. Archaeologist James Brown described him as an "unusually good amateur." Waldo Wedel of the National Museum, who coauthored an article with Trowbridge, commented that "I relied on the information I got from Trowbridge." Trowbridge was an amateur who strove for professionalism. Had he not been, more than half the known Spiro Mound textiles now at the Smithsonian Institution, the locations of many artifacts from Craig Mound, and data concerning the Kansas City Hopewell, might never have come to light. He would today be called an avocational archaeologist. He made every effort to authenticate his collection by keeping careful records for each artifact he excavated or collected, and deserves recognition for his accomplishments and his impact on archaeology.

In 1928, Trowbridge purchased a home located almost on top of a Hopwellian site just outside Kansas City, Kansas. When neighbors showed him their collections, he realized there was a village there. This was named the Trowbridge Site and was the first archaeological site to be recorded in Wyandotte County (14WY1). Being a full-time accountant, he explained that "excavations were largely confined to portions of week-ends in the spring and fall . . . Some excavating was done each year over the entire period from 1928 to the time this sheet is being written [February 1, 1942], and will probably be resumed this next spring. This . . . had been known to a few local collectors . . . but it is fairly certain none had done any excavating" (Trowbridge notes, Catalogue No. 2, Trowbridge Collection, Hopewell Village Site in Kansas, 14WY1, Wyandotte County Historical Society and Museum, Bonner Springs, Kansas). Along with the Renner, Deister, and Aker Sites, artifacts from the Trowbridge Site were used as the basis for Johnson's serial ordering of Kansas City Hopewell Ceramics (A. E. Johnson and A. S. Johnson, 1975, K-means and Temporal Variability in Kansas City Hopewell Ceramics. *American Antiquity* 40: 283295).



Craig Mound face etched into a conch shell from the Trowbridge Collection

Trowbridge excavated his Kansas City Hopewell site from 1928 until 1945. During this phase of the Classificatory-Historical Period, Willey and Sabloff say that "facts were gathered and systematized, and care and exactitude were beginning to be stressed in field and excavation procedures. In both the United States and Canada, amateurs were beginning to be brought under the eye of the professional" (G. W. Willey and J. A. Sabloff, 1993, *A History of American Archaeology*, pp. 147. University of Pittsburgh, W. H. Freeman, New York). Throughout all his excavations, Trowbridge carefully recorded the context of his artifacts. His field notes of April 16, 1933, described the provenience of a dog burial "on the west side of Robinson Ravine, about 4 spade lengths uphill from the line post set to mark the Robinson-Barnett boundary, and on the Barnett place, (lot 22), at a depth of 5 ft, was unearthed part of the skeleton of a 'dog-like' animal, and other relics of Indian Life." The burial and more than 3,500 artifacts were sketched, numbered, and catalogued. Trowbridge also used photographs in coordination with sketches to preserve a more accurate representation of his artifacts. He placed all his data in a long series of catalogues, scrapbooks, and notebooks.

Trowbridge experimented with techniques to preserve his finds. "Ambroid liquid cement and thinner . . . were used to strengthen some weak places . . . in the bones of the [dog] skull" (Trowbridge notes, Catalogue No. 2, Trowbridge Collection, Wyandotte County Historical Society and Museum, Bonner Springs, Kansas). In 1931, Trowbridge found a large piece of pottery in very fragile condition. Applying flour paste and writing paper to the exposed side of the pottery, he successfully reconstructed about one-fourth of the vessel.

Trowbridge's careful field notes helped him reconstruct pottery vessels, the parts of which were excavated several years apart. These reconstructions would have been impossible had he not kept precise records, but Trowbridge was determined to record and preserve his finds.

The archaeological community was shocked when the Pocola Mining company dug up artifacts from Craig Mound near Spiro, Oklahoma, solely for commercial reasons. Warren K. Moorehead, director of archaeology at Phillips Academy (Massachussetts), declared that "the destruction of the Oklahoma mound was an archaeological crime." Wedel bemoaned the "very unfortunate manner in which the antiquities have been excavated and sold for private gain." Richard G. Morgan, curator of archaeology of the Ohio State Archaeological Society, felt it was a tragedy that the artifacts had been "scattered all over this country." Trowbridge, however, had familiarized himself with the known artifacts from this site.

The first relic hunter at Craig Mound, J. W. Balloun, learned of Trowbridge through a fellow collector, J. G. Braecklein, and visited Trowbridge. Balloun had uncovered what he claimed to be textiles from the central mound at Spiro. Trowbridge recalled that "I rubbed my eyes several times. It seemed unbelievable that mound-builders' fabrics should be in that box, and yet the mass of dirty, lime-bearing material had every indication of being genuine" (Trowbridge to Moorehead, July 31, 1937, Scrapbook No. 6, Trowbridge Collection, Wyandotte County Historical Society and Museum, Bonner Springs, Kansas). Trowbridge felt he had to respond quickly:

I did not remember seeing or reading about any except very small bits of fabrics salvaged from mounds. If this was genuine mound-builders textiles, I thought I had a duty to perform right then, as it was plain that the relics would be scattered the next day, and few would have the interest to preserve them as they should. Consequently

the risk was assumed, and as every inquiry made afterward, pointed to their genuineness, I bought all this vendor had (Trowbridge to H. C. Shetrone, director of the Ohio State Museum, Columbus, Ohio, Dec. 25, 1936, ibid).

The cache included copper sheeting, beads, engraved conch shells, and textiles from the central chamber at Craig Mound. Trowbridge knew he had purchased important Spiro artifacts and focused his attention on the preservation of the textiles. Over the next two years, Trowbridge slowly unfolded, stretched, and cleaned thousands of particles of lime from the textiles to preserve the ancient cloths. Trowbridge traveled to Spiro Mound on a Labor Day weekend to survey the mounds. Luckily for archaeology, he interviewed both John Hobbs, and W. G. Cooper, two of the original Pocola diggers. Both men drew maps of the central mound and noted their recollections of the locations where they had discovered artifacts.

Trowbridge was referred to Wedel by A. T. Hill, director of the Nebraska Historical Society. He wrote to Wedel describing the Spiro textiles and his efforts to preserve them. They became friends and through their association, Trowbridge was introduced to other professionals whose assistance he sought in analyzing the textiles. Although Trowbridge had previously published a paper on the textiles based on a Bureau of Standards Report (H. M. Trowbridge, 1944, The Trowbridge Collection of Spiro Mound Artifacts, *Journal of the Illinois Archaeological Society* July: 2123), he sought to refine the analysis through correspondence with Charles C. Willoughby of the Peabody Museum of Archaeology and Ethnology. Willoughby advised him on the best techniques for preservation of his textiles and, from samples provided by Trowbridge, identified the Spiro weaving techniquesthe simple twined and twill-twined weaves. Willoughby provided Trowbridge with diagrams of each type and congratulated him on his excellent treatment of the textiles. To house the textiles, Trowbridge eventually built a fireproof and humidity-controlled vault in his private museum in the basement of his home.

Trowbridge wrote the National Museum of Natural History to solicit further information for understanding the textiles. A. C. Whitford, a research scientist associated with the Smithsonian, wrote to Trowbridge, asking to analyze the materials for his study of Native American textile fibers. Whitford used photomicrography to analyze the textile samples sent by Trowbridge and concluded that most of the textiles had been made from muskrat and jackrabbit. Whitford introduced Trowbridge to New York textile manufacturer Sylvan Stroock because of Stroock's interest in the textiles for contemporary manufacturing purposes. Trowbridge anticipated the field of applied archaeology when he told Stroock:

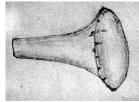
... your linking up in a study of these Spiro textiles, the prehistoric with the most recent weaving, and largely from a practical business standpoint, has a significance which I believe will, if known, be grasped by all students of archaeology and its kindred sciences ... and proves archaeology may be of value even in the realm of modern business (Trowbridge to Stroock, January 10, 1941, Scrapbook No. 6, Trowbridge Collection, Wyandotte County Historical Society and Museum, Bonner Springs, Kansas).

Trowbridge is the only contributor to the Smithsonian Spiro collection who carefully catalogued his records. Recognizing the value of his collection, the Smithsonian paid him \$20,000 for the accession in 1960. Trowbridge also published two of the earliest articles concerning these textiles [H. M. Trowbridge, 1938, Analysis of Spiro Mound Textiles. *American Antiquity* 4: 5153; 1944, The Trowbridge Collection of Spiro Mound Artifacts. *Journal of the Illinois Archaeological Society* July: 2123].

By 1939, Trowbridge was again regularly excavating the Trowbridge Site. He considered the discovery of a worked bone (HMT Cat. No. 1894) to be the most significant artifact recovered. This specimen was found in characteristic camp refuse without any unusual features. However, worked bone at the site had been rare. This bone was notched and mushroom-shaped. Trowbridge believed it to be a tool used to create uniform designs on Hopewell pottery. Wedel agreed and speculated that the uniformly carved bone solved a long-standing puzzle:

Many years ago Professor Holmes suggested the probability that certain pottery types of the mound area were ornamented with a roulette . . . Since no tool of this nature has ever been recovered, the existence of the type has been challenged and it has become customary to refer to the markings as dentate stamp. Your find, in my opinion, vindicates Holmes' original suggestion (Wedel to Trowbridge, January 25, 1940, Scrapbook No. 6, Trowbridge Collection, Wyandotte County Historical Society and Museum, Bonner Springs, Kansas).

The bone was identified as a roulette marker. Wedel was so impressed that he asked Trowbridge to coauthor "A Prehistoric Roulette from Wyandotte County, Kansas" (W. R. Wedel and H. M. Trowbridge, 1940, *Proceedings of the U. S. National Museum* 88: 3091).



Trowbridge had always been concerned with the permanent curation of his collection and wanted a regional museum of archaeology to be built in or near Kansas City. But before a museum in Wyandotte County was constructed, he loaned his collection of Hopewell and Spiro artifacts to the Kansas City Museum. They built a specially designed fireproof room to house his textiles. However, disagreements over presentation of his artifacts resulted in his removal of the collection in 1958.

This event lead Trowbridge to work toward what was to become the Wyandotte County Museum. Trowbridge successfully lobbied for a special county tax to support the museum. He personally supervised the architecture of the original building, and with the funds from the sale of his collection to the Smithsonian, he financed the construction of a Trowbridge wing to the museum to house and display his remaining personal belongings and artifacts. His personal papers and research catalogues are now in the Harry Trowbridge Research Room of the museum. Museum archivist John Nichols recently commented that without Trowbridge's tireless effort and financial support, the museum would not exist.

Trowbridge has a distinguished history of promoting an understanding of Native Americans and educating the public. He arranged countless tours through his home museum, hosting guests ranging from high-school students to nationally-known archaeologists. Steve Dolinar, a Trowbridge neighbor, informed me that while others criticized Native Americans, "Harry Trowbridge was interested in the anthropology of the Indians. That's one reason I admired Harry. You know he even built his home on land where the Indians lived."

When economic development threatened the Huron Cemetery, a Wyandot Indian cemetery in Kansas City, Trowbridge played a major role in protecting it, even corresponding with President Harry S. Truman to enlist his support (President Truman to Trowbridge, March 13, 1959; Trowbridge to President Truman March 7, 1959; April 30, 1959. Vault of Harry Trowbridge Research Library, Trowbridge Collection, Wyandotte County Historical Society and Museum, Bonner Springs, Kansas.) Not only did he care deeply about the artifacts he collected, but Trowbridge carried the concept of preservation into the community in which he lived.

Harry Martin Trowbridge devoted his life to the collection, preservation, and display of Native American artifacts. He was no mere amateur or pot-hunter, wanting simply to collect artifacts; he strove to preserve them and use them to educate those interested in the prehistoric past. Trowbridge was an avid reader and student of history, but he recognized his limitations and consulted professional archaeologists. When necessary, he tenaciously pursued their opinions to identify the important artifacts he excavated and collected. Wedel and others visited his home to view his famous museum, and Neil Judd, curator of the Division of Archaeology of the Smithsonian Institution, wrote that he hoped to come to Kansas City, "if only to see the treasures you have brought together" (Judd to Trowbridge, September 8, 1938, Scrapbook No. 6, Trowbridge Collection, Wyandotte County Historical Society and Museum, Bonner Springs, Kansas). Trowbridge's work impressed the professional community with the seriousness of his commitment and in turn, it helped him make his invaluable information accessible to the public.



Craig Mound design etched into a conch shell from the Trowbridge Collection

Trowbridge's work contributed to the national dialogue about two significant archaeological culturesthe Kansas City Hopewell and the Spiroan Southern Ceremonial Cult. His contributions to the field prompted Warren K. Moorehead to endorse his membership in the Society for American Archaeology. In November 16, 1937, W. C. McKern, then-editor of *American Antiquity*, wrote to him, "you are, in my estimation, the type of student-collector most needed in our organization."

Trowbridge promoted the appreciation of archaeology and the preservation of the prehistoric past through educational tours of his home museum; he helped preserve many local sites, including the Huron Cemetery, after which the county and museum are named; he loaned his collection to local and national museums, eventually selling a majority of his specimens to the Smithsonian Institution. Trow-bridge wished his collection to be preserved for others to study after his death. His collections may today be seen both at the Smithsonian's Natural History Museum and the Trowbridge Wing of the Wyandotte County Museum. Harry Trowbridge thought of himself as a "serious amateur," yet he strove for professionalism in every aspect of his work. Without his careful preservation of the artifacts he collected, a significant archaeological link with our collective past would be lost forever.

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Working Together in California

Philip de Barros

Author's Note: This article provides a brief history of the Native American Programs Committee (NAPC) of the Society for California Archaeology (SCA). The first efforts of this committee were reported in the SAA Bulletin [1993, 11(3)] in an article entitled, "Native Americans and Archaeologists Working Together Toward Common Goals in California." This article inspired the Working Together column that has since become a permanent feature of the Bulletin.

The history of the relationships between archaeologists and Native Americans in the context of the history of the Society for California Archaeology (SCA) goes back more than 30 years. For a broad overview of this topic, see Joseph Chartkoff's article, "California Indians and Archaeology: A Special Report," in *News from Native California* 1996, 9(4): 23. This article focuses primarily on the history and efforts of the Native American Programs Committee (NAPC) created in 1992.

Although there have been archaeologists, such as Dave and Vera Mae Fredrickson and Chester King who have worked with Native Americans in the spirit of cooperation since the SCA was founded, "a review of SCA Newsletters from the first 15 years of the SCA's existence (19671981) shows few published cases of interaction between the two groups, suggesting that Native American concerns were not especially high on the SCA's agenda" (Chartkoff 1996: 2). Chartkoff goes on to explain the reasons for this: (1) California's Native American community was smaller and less well organized; (2) archaeologists were focused on chronology and cultural sequences, which were relatively removed from Native American concerns except, of course, when they involved the excavation and analysis of burials; and (3) the scale of archaeological fieldwork was relatively small in those days. The passage of historic preservation laws in the 1960s and 1970s and the quantum leap in archaeological excavation that eventually resulted, the movement of archaeology toward a study of culture systems and culture change which were related more to Indian concerns, the rise of Native American consciousness during the civil rights movement, and the advent of California Indian Conferences in 1985 significantly altered this situation (Chartkoff 1996: 23).

It was in 1985 that I returned to California after a long period of conducting archaeological research in West Africa. I had completed my Ph.D. from UCLA and began working for Chambers Group in Orange County as director of cultural resources. My African research had consisted of tightly interwoven archaeological, ethnographic, and ethnohistorical studies, and I had become accustomed to working regularly with African peoples as I conducted my research. During the first few years working in California archaeology, I was shocked to see the frequent lack of communication and cooperation between archaeologists and Native Americans. I remember being introduced to the well-known California ethnologist, Lowell Bean, as "one of the good archaeologists," as if most were in fact bad. In 1986, I remember attending the second California Indian Conference in Santa Barbara and witnessing a spectacle of cultural anthropologists chastising archaeologists for their insensitivity about the issue of human remains. Determined to make a difference within my own firm, I began to use Native American monitors in 1986 and by 1988, began to employ Native American crew trainees during archaeological excavations.

Other archaeologists of the early- to mid-1980s also saw the need for improved communication and cooperation. At the 1980 SCA Annual Meeting in Redding, a "Native American Symposium, participants to be announced" was held on a Saturday morning. NAPC member Janet Eidsness remembers seeing Native Americans at the SCA Annual Meeting for the first time. Past meetings regarding Native American concerns had tended to be non-Indians talking about the need to work with Indians. When Indians actually came to the meeting, many archaeologists were uncertain of what to do or say (J. Eidsness, personal communication, April 1999). A "Common Goals Symposium" was organized at the 1986 SCA Annual Meeting in Santa Rosa to discuss the common goals of cultural resource managers and California Native Americans. This symposium was attended by more than 70 people, almost half of which were Native American. In 1987, at the Annual Meeting in Fresno, Robert Laidlaw organized a session on "Law, Public Policies, and the Management of Cultural Resources." A number of papers focused in part on Native American issues including human burials, presented primarily by non-Indian speakers. At this meeting, some Native Americans criticized archaeologists for their lack of respect for Native American concerns, while another group supported archaeologists' efforts to retrieve the past (Chartkoff 1996: 3). In 1988, June Wilburn, organized a "Native American Indian Issues and Perspectives" morning session at the SCA Annual Meeting in Redding, which included both Indian and non-Indian speakers. This meeting also saw a presentation on cupule rocks in the Pit River region by Native American Floyd Buckskin collaborating with archaeologist Arlene Benson.

At the spring 1990 Annual Meeting in Foster City, acrimonious discussions developed between archaeologists regarding the issue of the repatriation of human remains at the SCA Business Meeting. In October 1990, I listened to passionate debate on the issue of repatriation and reburial of Native American human remains in the context of the proposed state Katz bill and federal NAGPRA legislation at the Sixth California Indian Conference in Riverside. I was struck by the reluctance of archaeologists in the audience to express their views and the general Native American hostility toward archaeologists. From then on, I began to speak out publicly and write about the need for cooperation between archaeologists and Native Americans. After the Riverside meeting, I asked Larry Myers, executive secretary of the California Native American Heritage Commission, if I could address a letter to the commission about my views on the issue of human remains. He offered to publish my "Letter from a Concerned Archaeologist" in the winter (fall) 1990 issue of the Native American Heritage Newsletter. It was reprinted in the SCA Newsletter in January 1991. In this article, I stressed four points with regard to the issue of human remains: (1) as anthropologists, archaeologists are ethically required to work with the living descendants of inhabitants of sites that we study; (2) human remains can provide important scientific information for both Native Americans and archaeologists alike, but science should not automatically take precedence over the wishes of Native American groups; (3) basic human rights are involved when it comes to the disposition of human remains; and (4) there should be a flexible policy with regard to repatriation and reburial oriented toward case-by-case negotiations.

At the SCA Annual Meeting in Sacramento in March 1991, Dave Fredrickson (Sonoma State University) issued an appeal for improved cooperation between Native Americans and archaeologists. After that appeal, I met with Fredrickson and Claude Warren (University of Nevada at Las Vegas) to discuss how we might proceed to accomplish this. The support we received for our efforts encouraged us to push forward. In 1992, I began a series of articles in the SCA Newsletter which focused on how cooperative efforts might be developed. Leslie Steidel also contributed an article. These suggestions included: (1) telephone or in-person solicitation of Native American concerns regarding project impacts and archaeological excavations, (2) inclusion of Native Americans at the research design stage, (3) provision of copies of all reports to interested groups, (4) regular use of Native American monitors during excavation, (5) use of Native American crew members (including as crew trainees) for both survey and excavation, (6) working cooperatively with Indians on the issue of human remains and associated grave goods, (7) more emphasis on ethnographic and ethnohistoric research during archaeological projects, (8) a greater focus on site preservation rather than site mitigation, and (9) participation of Native American elders in archaeological field schools in an effort to get away from an archaeology of "things" toward an archaeology of "people." I put this latter philo-sophy into practice during two UCLA field schools in the summers of 1991 and 1993 and presented the concept as a paper at the Seventh California Indian Conference at Sonoma State in 1991.

In 1992, Dick Markley was elected president of the SCA. Thanks to his vision, the Native American Programs Committee was established by the SCA Executive Board on June 7, 1992. I was named chair. Markley suggested the committee move forward in a number of domains, including creating an SCA scholarship fund, organizing a symposium focusing on "success stories" involving Native Americans and archaeologists, helping Native American groups to establish curation facilities and train in collections management, and developing programs to increase Native American participation in archaeological fieldwork as archaeological technicians [Markley, 1992, SCA Newsletter 26(4)].

The first major effort of the committee was to organize a symposium that would showcase successful examples of cooperation between Native Americans and archaeologists in California. This took place at the 1993 SCA Annual Meeting in Asilomar. It was complemented by a second symposium focused on how Indians and archaeologists often view cultural resources from different perspectives. Both were highly successful and were very well attended by the membership. During the 1993 SCA Annual Meeting, Mark Aldenderfer (University of California-Santa Barbara), who had just taken on editorship of the *SAA Bulletin*, asked me to provide an article on Native American issues. The resulting article focused on the creation of the Native American Programs Committee and the success of the Asilomar conference. It was published in summer 1993.

In 1994, I spoke on the issue of cooperation between Native Americans and archaeologists at two national conferences. The first was a meeting of Army Corps of Engineers' archaeologists at the SAA 59th Annual Meeting in Anaheim, where I emphasized the importance of Traditional Cultural Properties. At the Department of Defense's Biennial Conference held in Pensacola, Florida, in June 1994, I presented a history of the Native American Programs Committee and emphasized the dual nature of cultural resources, as both scientific resources and Native American heritage resources.

In 1995, the committee sponsored a major Native American symposium at the SCA Annual Meeting in Eureka. It was organized by Bob Orlins. This symposium marked the beginning of a new policy, the waiver of registration fees for Native Americans desiring to attend SCA Annual Meetings. This year also saw the development of the concept of Cultural Resource Management (CRM) workshops for interested Native American groups to aid them in the protection of their cultural heritage. In January 1995, the committee began a series of meetings in the home of committee member Janet Eidsness with representatives of the Salinan Nation. The goal was to develop a 3-day CRM workshop tailored to the needs of the Salinan Nation and, in particular, to develop a detailed sourcebook to be used for such workshops [see SCA Newsletter 29(2)]. An article announcing such plans to California Native Americans also was published in the journal, News from Native California, in the winter 1994/1995 issue. A fund-raising effort initiated to support the costs of the workshop and source-book netted over \$1,200 from individuals and CRM firms.

In May 1996, a very successful three-day workshop was held for the Salinan Nation at the San Antonio Mission. It focused on the following topics: (1) What are cultural resources? (2) state and federal CRM laws; (3) hands-on archaeological knowledge of artifacts and sites, including a site visit; (4) how to read a topographic map; (5) monitor/consultant roles and responsibilities, and (6) monitoring scenarios. It was followed by a one-day workshop in August 1996 centered on the interpretation of CRM documents and involvement in local, state, and federal planning processes.

The year 1996 also saw another first. Thanks to editor Malcolm Margolin and contributing editor Ray Moisa, a special report, "California Indians and Archaeology," was included in the summer 1996 issue of *News from Native California*. The 32-page supplement contained a series of both Indian and archaeologist views about past and present relationships between archaeologists and Indians.

Efforts to develop a similar workshop program in Bakersfield toward the end of 1996 encountered some serious difficulties. CRM workshops often are perceived as "monitoring workshops" by some Indian groups. This may bring up the issue of whether the workshop is for people who are the traditional descendants of the region where the workshop is being held. Most Indian groups do not see it as proper for Indians of one ethnic group or tribe to be serving as monitors in an area outside of their traditional territory. Attempts to resolve this problem in the Bakersfield area became insurmountable. A workshop was ultimately held involving a number of regional archaeologists, but it was not officially sponsored by the SCA.

At the request of local Pomo and other Indian groups, a major forum for archaeologistNative American interaction was organized at the 1997 SCA Annual Meeting. For the first time, some major Indian leaders were invited to participate, including Larry Myers, the executive secretary of the California Native American Heritage Commission, and Dwight Deutschke from the SHPO's office. The forum, attended by over 100 Indians, hosted a very frank exchange of views between Indians and archaeologists from both the public and private sectors. This forum, headed by attorney Pauline Girvin, led to a request for a CRM workshop from the Mendocino County Tribal Chairpersons Association and the Mendocino County Intertribal Repatriation Project. The workshop was held in March 1998 at the Coyote Valley Reservation near Ukiah and was an unqualified success. And, just a month earlier, in February 1998, Ken Wilson of the SCA and the Six Rivers National Forest organized a similar workshop for Yurok and Tolowa Indians.

In April 1998, the NAPC tried something new. Heretofore, we had worked in close cooperation with a single tribe or small regional group to organize workshops, such as with the Salinans and the Mendocino Pomo. This time, it decided to hold a one-day CRM workshop during the course of the Annual Meeting in San Diego, inviting Indians from all over southern California. Documents from previous workshops were compiled into *A Minisourcebook on Cultural Resource Management, Archaeology, and Cultural Heritage Values for the Native American Communities of California*. Over 120 copies were distributed free of charge to the Indians who attended the San Diego workshop. The workshop had standing room only and nearly every Indian group from southern California sent representatives. The workshop consisted of presentations on CRM laws, traditional cultural properties, the Yurok Tribal Historic Preservation Office (THPO), a demonstration of flintknapping, the use of topographic maps, and a roundtable discussion of monitoring roles and responsibilities, including a discussion of "what if" monitoring scenarios.

Demand for the *Minisourcebook* has been substantial. It was recently revised to include information on the California Environmental Quality Act (CEQA) and the creation of the California Register of Historical Places. Additional material on the differences between projects falling under CEQA (state law) and Section 106 (federal law) were clarified in an easy-to-read chart.

"... the Native American Programs Committee has come a long way ... In seven years, the committee has organized a series of symposia, forums, and workshops for various regions and Native American groups and developed a useful sourcebook for Native American communities. Most important, however, Native American participation at annual SCA meetings is now the expected pattern rather than the exception. Increasingly, Native Americans want to attend our Annual Meeting whether they are participating in an organized session or not."

Important CRM laws were presented in three formats: a brief paragraph description, a lengthier explanation, and the full text of the law. Several glossaries of archaeological and historic preservation terms also were included. The book also contains guidance on traditional cultural properties, excerpts from the *Keepers of the Treasures* report by the National Park Service, an Indian's viewpoint about the nature of archaeology, and a list of the courses offered in anthropology and archaeology at community colleges across the state.

On April 24, 1999, at the SCA Annual Meeting in Sacramento, a major forum, "California's Indian Heritage into the 21st Century: Walking the Road to Collaboration," took place. For the first time, a formal invitation was sent out to 270 Native American individuals and groups to attend the Annual Meeting. The forum included a wide spectrum of Indian leaders, CRM archaeologists, agency archaeologists, and consultants. It was attended by over 170 Indians and archaeologists and saw some of the most useful and insightful exchanges between the two groups since the founding of the NAPC. It was both encouraging and heartwarming. The *Sourcebook* sold out

rapidly and another 30 people requested copies. After the meeting, the NAPC met and picked up many additional Indian and non-Indian members. It is an exciting time.

In short, the Native American Programs Committee has come a long way since 1992. In seven years, the committee has organized a series of symposia, forums, and workshops for various regions and Native American groups and developed a useful sourcebook for Native American communities. Most important, however, Native American participation at annual SCA meetings is now the expected pattern rather than the exception. Increasingly, Native Americans want to attend our Annual Meeting whether they are participating in an organized session or not.

Future goals of the NAPC include the development of a scholarship program for Native Americans, the presentation of a formal award in recognition of Native American scholarship at future annual meetings, and the inclusion of Native Americans in some of the standing committees of the SCA.

I stepped down as chair of the NAPC in April 1999; the new chair is long-time committee member Janet Eidsness. A great deal has been accomplished and much more remains to be done, but I believe the SCA has succeeded in moving toward improved communications between Native Americans and archaeologists. Indeed, we are now "Working Together."

Philip de Barros, former chair of the Native American Programs Committee for the Society for California Archaeology, is associate professor of anthropology at Palomar College in San Marcos, California.

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Linda Schele and Maya Archaeology

1943-1998

David Freidel

More than a quarter century ago, Linda Schele, observing that there was no settlement map of Palenque, set out with Alfonso Morales to begin the process with a comprehensive sketch map. Hers was the first published report on the settlement outside the monumental core area (L. Schele, 1981, Sacred Site and World View at Palenque. In Dumbarton Oaks Conference on Mesoamerican Sites and World Views, edited by Elizabeth P. Benson, pp. 87117. Dumbarton Oaks, Washington, D.C.). Today, Alfonso Morales is contributing as an archaeologist to the Precolumbian history of Palenque and Palenque is being mapped accurately by Schele's student, Ed Barnhart. Schele (1986) also collaborated with archaeologist and ceramicist Robert Rands (they were research fellows together at Dumbarton Oaks in 19751976) on the definition of sequential development in the technology and design of tombs and temples at the site (L. Schele, 1986, The Founders of Lineages at Copán and Other Maya Sites. Copán Note 8. Copán Mosaics Project and the Instituto Hondureño de Antropología e Historia). In 1974, Schele collaborated with Peter Mathews on the inventorying and documenting of texts and images from stucco and stone decoration fragments collected and stored in the Palenque bodega by previous archaeological expeditions to the site. This work required painstaking reconstruction of provenience information from archaeological field notes, published in their monograph of photographs and drawings (L. Schele and P. Mathews, 1979, The Bodega of Palenque, Chiapas, Mexico. Dumbarton Oaks, Washington, D.C.).

In the mid-1980s, Schele joined the Copán Mosaics Project as epigrapher at the invitation of William Fash. In that context, she worked with David Stuart, Barbara Fash, and Nikolai Grube on the recording and decipherment of the texts of that site. Commensurate with the rapid dissemination of new decipherments by informal means among Maya epi-graphers, Schele started the *Copán Notes*, a series of preliminary reports on epigraphy and iconography with a principal focus on the Copán research. The several hundred entries in this series comprise the most detailed and useful history of epigraphic research at a Maya site. She published her interpretations of the Copán glyphic and archaeological evidence in four books (L. Schele and M. E. Miller, 1986, *The Blood of Kings*. Kimbell Art Museum, Fort Worth; L. Schele and D. A. Freidel, 1990, *A Forest of Kings*. Morrow, New York; D. A. Freidel, L. Schele, and J. Parker, 1993, *Maya Cosmos: Three Thousand Years on the Shaman's Path*. Morrow, New York; L. Schele and P. Mathews, 1998, *The Code of Kings, The Language*

of Seven Sacred Maya Temples and Tombs. Scribner, New York).

Schele took special pleasure in her collaboration with David Sedat and Robert Sharer in the tunnel excavations inside the Copán acropolis. She regarded the expertise of these archaeologists and their

colleagues with an unmitigated admiration and awe. At the same time, she never failed to voice confident and enthusiastic opinions on iconographic and epigraphic matters relevant to this research. She championed the conjunctive approach to Maya studies, which among other things, includes the cross-correlation of archaeological and epigraphic information. Acknowledging that the Maya used historical texts as political propaganda, she nevertheless insisted that they also described real people and events. In 1986, Schele (Copán Note 8, 1986) hypothesized that the Copán dynastic founder Yax-K'uk'-Mo' was not a mythical but rather a historical figure. In addition to Late Classic retrospective history, her evidence at that time consisted of fragmentary Early Classic texts from broken Copán monuments that confirmed the existence of glyphic history from that era. As excavations in the acropolis tunnels proceeded, which was partially supported by funds from her endowed chair at the University of Texas at Austin, she witnessed the material documentation of the founders of the dynasty in tombs deeply buried inside the acropolis.

Schele's final collaborative book, *Code of Kings* (1998), exemplifies her interest in central issues challenging archaeologists in the Maya area. Written with Peter Mathews, the book thematically addressed continuity and disjunction between the Classic and Postclassic periods. Their study of monumental architecture at Seibal, Uxmal, Chichen Itzá, and Iximche provided a framework for renewed consideration of the Itzá migrations, the Putun hypothesis, and the relationship between the ethnohistorically known K'iche', Kak'chikel, and the Classic lowland Maya. It is a bold and substantive effort to bridge between the history of the Classic Maya and that of Colonial Maya and their modern descendants.

Linda Schele died of pancreatic cancer on April 18, 1998. She leaves an impressive legacy of field archaeologists who trained with her, as well as valuable and influential contributions to the archaeological record of the Maya. She is survived by her husband, David Schele, who with Linda launched an endowed chair at University of Texas at Austin to continue work on Mesoamerican writing and art.

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Exchanges-Interamerican Dialogue

Cultural Patrimony in Mexico:



Proposal for a New Law to Replace the 1972 Legislation

Emily McClung de Tapia

As April 1999 came to a close, an initiative to substitute the "Ley Federal de Zonas Monumentos Arqueológicos, Artísticos e Históricos" for the "Ley General de Patrimonial Cultural de la Nación," promoted by Mauricio Fernández Garza, National Action Party (PAN) senator, was presented to the Mexican Senate by the Commission on Cultural Affairs. A series of public forums were held in several cities on October 1320, 1999, to discuss the content and potential consequences of the proposed law. However, ever since the text first appeared in public, it has undergone scrutiny by diverse sectors of the anthropological community and received serious criticism from all corners. The following comments are largely restricted to the relevance of the proposal for the archaeological community, although it obviously has significant implications for historical and contemporary monuments and artistic achievements.

Although a detailed summary of the 42-page proposal is beyond our scope here, some of the salient features of the initiative are worth mentioning. A complete version of the initiative can be obtained on the information list maintained by Carlos García Mora (email: uandakua@mati.net.mx).

The initiative includes the creation of the Instituto para la Protección del Patrimonio Cultural that would absorb the current Instituto Nacional de Anthropología e Historia (INAH) as well as certain functions of the Instituto Nacional de Bellas Artes (INBA) and Consejo Nacional de Arte y Cultura (Conaculta). However, several references to INAH (for example, Art. 33 and Art. 40) leave its future role unclear.

According to the proposal, this new entity would be integrated by an executive secretary; a council presided over by the secretary of Public Education and comprised further by the secretaries of the Interior, Treasury, Social Development, Environment, Auditor, and Tourism, as well as the attorney general, the president of Conaculta and the executive secretary of the Instituto para la Protección del Patrimonio Cultural; and five recognized specialists representing the scientific and academic communities, designated by the president of the Republic and proposed by the secretary of Public Education. A Technical Commission, presided by the executive secretary of the Instituto, would function as a advisory body.

Another organ to be created under the proposed law would coordinate the interaction of federal, state, and municipal authorities with technical assistance from INAH (Art. 40): the National System of Coordination in Protection, Growth, and Development of National Cultural Patrimony. This organ would be further divided into two subdivisions (Art. 41): the General Council on National Cultural Patrimony, composed of the secretary of Public Education and the state governors, represented by the president of Conaculta in the first instance and by designates in the second; and a Permanent Committee for Protection and Growth of Cultural Patrimony of the Nation, composed of the president of Conaculta, the executive secretary of the Institute and representatives of eight geographical entities, each formed by groups of four neighboring states. The General Council would be responsible for promoting national development through the protection of cultural patrimony, and its functions

would include approval of technical norms to guide research, cataloguing, exhibition, preservation, restoration, utilization, reproduction, and storage of patrimony, among others (Art. 43).

A clear implication of the proposal is the virtual disappearance of INAH and, since no specific mention is made of the professional schools it supports, the fate of these centers of learning is left in doubt.

One of the major problems Mexico faces is the protection of archaeological sites and artifacts from damage, looting, and illegal sale, on one hand, and on the other, provision of the necessary financial support to promote scientific research and conservation of monuments and associated archaeological materials. The initiative purports to deal with the risks to cultural patrimony through new sanctions such as fines (ranging from 100 to 1,500 days of minimum wages) and prison terms (from 1 to 10 years), depending upon the gravity of the offense (Arts. 67-71). However, certain individuals would be permitted to privately enjoy the ownership of archaeological remains, based upon their "education, customs, and behavior" (Art. 68).

In the Mexican anthropological community certain elements of the proposal have generated a notable consensus, particularly the opinion that the initiative appears to promote private collections and consequently, looting, and the illegal or pseudo-legal traffic of archaeological remains. It clearly gives priority to political and economic interests at the state and municipal levels rather than to cultural and scientific objectives at the national level. It glosses over potential input from qualified, certified professionals in fields such as archaeology, architecture, restoration, and other related areas, leaving most decisions in the hands of politicians and their designates. Finally, it provides no clear measures for the rescue and protection of archaeological zones. Other criticisms include an ambiguous definition of cultural patrimony; significant omissions as to the future of the INAH-related schools and INAH employees, and the role of scientific research in archaeology, among others; and foremost, a marked tendency to promote privatization (referred to as "concessions" in the text) of national cultural patrimony while completely disregarding the potential participation of the general community in its preservation.

Recently, some members of the senate Cultural Commission, including senators from both the Democratic Revolution Party (PRD) and the Revolutionary Institutional Party (PRI), pointed out flaws in the initiative, such as the inadequate judicial structure and the lack of consensus necessary for its passage during the current legislative session (September 26, 1999, La iniciativa de Ley del Patrimonio Cultural, en agonía, *Proceso*, 1195, p. 64).

The initiative must be presented to the senate commissions of Culture and Cultural Patrimony, and a discussion held to determine modifications in or dismissal of the proposal. Then, it will be presented to the entire senate followed by additional discussion, and finally, presented to the House of Deputies where it will undergo a similar evaluation process. Unfortunately, this is a particularly bad moment for such critical legislation to be pending in the legislature. As the primary election for the PRI's presidential candidates draws near and other significant political events capture both the public's and their "representatives'" attention, many anthropologists fear that meaningful discussion and consideration of alternative positions risk being sidelined, resulting in the measure being passed without adequate consideration and, especially, consultation.

Most Mexican archaeologists have dedicated their careers to the *scientific* study of archaeological remains as a means of gaining insight into past societies and their contributions to Mexican and global cultural heritage. On the other hand, political and economic interests in archaeology tend to focus on the preservation of cultural patrimony in direct proportion to its capacity for generating economic resources. In spite of the myriad problems faced by INAH, with an operating budget that is unable to keep pace with its mandate, the general archaeological community favors a significant modification of the 1972 law to update its coverage to provide adequate measures that would allow enforcement of its provisions rather than a new proposal (Letter to the H. Congreso de la Union, May 18, 1999, Colegio Mexicano de Antropólogos, A.C.; Interview with G. García Cantú, *Reforma* May 22, 1999; Letter to Lic. Teresa Franco, Director, INAH, June 2, 1999, Especialidad de Arqueología, Instituto de Investigaciones Antropológicas, UNAM; Los antropólogos, en la polémica, *Proceso*, 1195, September 26, 1999, p. 66).

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American and Mexican Archaeology: Differences in Meaning and Teaching

Gillian E. Newell

Education reflects and helps perpetuate current professional paradigms and assigned cultural roles of archaeology within and between countries. Evaluating how archaeologists are trained offers great potential to evaluate the goals and purposes of the profession as we approach the end of this millennium. In this article, I compare how undergraduate archaeology is taught in the United States and Mexico and underscore that each system developed from different roots, traditions, and historical contexts.

Such work is important because a comparison of the two educational systems presents valuable insights into three related issues: (1) the difference in the training and pursuit of archaeology between the United States and Mexico, (2) the strengths and weaknesses of both systems, and (3) the lessons that lie in comparing and contrasting the two educational systems and pursuits of archaeology. In addition, a comparison of the two educational systems demonstrates that the B.A. degree cannot and should not be equated with the *Licenciatura* degree, nor should the *Licenciatura* degree be likened to a M.A. degree or an impoverished Ph.D.

To achieve these goals, I shall first present a brief overview of each educational system and discuss the differences in educational and professional goals of each system. Then, I will touch upon two different historical developments that influenced the two types of archaeology, leading to the differences in role and meaning of archaeology in each country. Based on these comparisons, I conclude by making some suggestions for the American training of archaeologists and posing some questions for Mexican archaeology as a discipline. The work presented here is based on my experiences in spring 1996 as a member of the binational Cerro de Trincheras project in Sonora, Mexico, directed by Randall H. McGuire and M. Elisa Villalpando C.

Educational Systems and Goals

In the United States, archaeology is taught as one of four subdisciplines of anthropology (with cultural anthropology, physical anthropology, and linguistics). Anthropology as a whole is embedded in the liberal arts education of a four-year college. Students take a fairly large number of nonanthropological courses. Furthermore, the requirements for obtaining a B.A. degree in anthropology are flexible and need not follow a rigid structure or sequence.

Students take several self-contained, nonsequential, and topic-oriented courses that only offer a general introduction and overview of the field of anthropology and its different subfields. Certainly students can voluntarily enroll in field schools, pursue internships, or write a senior thesis, but further specialization and indepth training must wait until graduate school. In other words, the B.A. in anthropology indicates that a student can concentrate in anthropology while following a liberal arts curriculum.

In Mexico, most students attend the Escuela Nacional de Antropología e Historia (ENAH), where archaeology exists as one of seven different programs (archaeology, physical anthropology, social anthropology, linguistics, history, ethnohistory, and ethnology). To become a *Licenciado(a)* in anthropology with a specialty in archaeology, students must first follow a rigid sequence of courses over the span of nine semesters. In addition to the coursework, students complete their *prácticas de fin de carrera* (final steps). These steps consist of at least three months of fieldwork or six months of laboratory work, and writing a thesis and defending it before an

examination committee composed of professionals (1995, Reglamento para las Licenciaturas de la Escuela Nacional de Antropología e Historia. ENAH; 1997, Plan

de Estudios para la Licenciatura: Especialidad de Arqueología. ENAH, México D.F., México).

The training in Mexico is rigorous, in depth, and focuses extensively on both theory and practice. Because the students follow a rigid sequence in one subdiscipline, they build a profound knowledge of archaeology and develop a thorough understanding and insight into the field. Also, the requirements, especially the *prácticas de fin de carrera*, force the students to pursue their interests and specialize in some archaeological niche.

In the United States, a Liberal Arts education functions only as an introduction to and preparation for the world that the student will enter upon graduation (1997, E. Friedl, Fifty Years of Teaching Cultural Anthropology. In *The Teaching of Anthropology: Problems, Issues and Decisions*. Edited by C. P. Kottak, J. J. White, R. H. Furlow, and P. C. Rice, pp. 8388. Mayfield, Mountain View, CA). The Mexican curriculum, on the other hand, aims to train and specialize students to function within their niche in a professional context. Consequently, the Mexican system requires thorough training in specific skills and the essential techniques necessary for success in the chosen subdiscipline.

The title of the degree alone reveals these differences in educational and professional goals. The word "bachelor" developed from the Middle English bacheler, meaning aspirant to knighthood (1982, The Oxford Concise Oxford Dictionary of Current English, 7th ed. Edited by J. B. Sykes. pp. 48, 62. Oxford University Press, Oxford). Therefore, a Bachelor of Arts is merely "aspiring to." The noun "Licenciatura" comes from the verb licenciar, which means to license, to permit (1990, Diccionario actual de la lengua española. pp. 966. Barcelona, Spain). The Licenciatura carries some of this connotation in that students become licensed in their field and are then permitted to carry out its professional activities.

The nature of expected employment differs as well. In the United States, graduate students are trained for employment in the academic world, although the majority of available jobs are in the nonacademic sector. The latter jobs supply professionals with more applied and practically-oriented work. However, these positions are perceived by some in academia to occupy a less desirable place in the professional world. The structure of the B.A. curriculum perpetuates this perception and may a create false expectation of the potential for employment in academia (1997, K. E. Tice, Reflections on Teaching Anthropology for Use in the Public and Private Sector. In *The Teaching of Anthropology: Problems, Issues and Decisions*. Edited by C. P. Kottak, J. J. White, R. H. Furlow, and P. C. Rice, pp. 273284. Mayfield, Mountain View, CA).

In Mexico, students expect to find employment predominantly at the government-funded Instituto Nacional de Antropología e Historia (INAH), of which the ENAH is part, or alternatively at the research institution the Universidad Nacional Autónoma de México, or, much less frequently, at a private university. These institutions exist to conserve and study Mexico's

"In Mexico, historical and socioeconomic contexts have yielded a very different kind of archaeology. Anthropology developed through strong academic and governmental influence into a discipline integrating history and science to serve the nation, its people, and the discipline. As a result, Mexican students in archaeology receive more 'vocational' training to become proficient at investigating, protecting, and conserving the archaeological resources, and sharing the acquired knowledge with the public."

national heritage (patrimonio), teach, and communicate anthropological and historical knowledge to the public (1997, ENAH; 1995, J. C. Olivé Negrete, El Instituto Nacional de Antropología e Historia. In INAH: Una

historia, vol. I: 33108. INAH, México D.F., México.). Hence, the distinction between academic and private sectors does not exist, and students are expected to function not only as academics (teacher and researcher) but in many other, more diverse roles.

The American system emphasizes the theoretical aspect of anthropology in general because that is how anthropology contributes to the formation of a critical adult perspective on the world. Introductory courses teach students basic analytical skills and create awareness of other cultures, cultural differences, and world issues. The Mexican system specifically trains students for all aspects of archaeology but in the service of the state.

Historical Context

The numerous differences, all interrelated, both resulted from and shaped the role that archaeology plays in society. In each country, archaeology developed from specific historical roots and traditions with different cultural implications for the professional practice. Here, I only briefly touch upon some important differences.

The differences in perspective toward the past and Native peoples, in particular, have had profound effects on the role of archaeology in each society. In the United States, archaeology developed without a direct tie to the country's precolumbian past. At the time of colonization, Europeans quickly displaced and decimated the native population and established their own written, and hence seen as superior, past and institutions. Then, Europeans and European Americans developed archaeology into an academic discipline when a noticeable Native presence was lacking. Those archaeologists studied Native Americans in a detached manner and viewed them as other, different, and exotic. As a result, American archaeology today is defined as the study of the other, the exotic, and the unknown (1982, J. L. Lorenzo, Archaeology South of the Río Grande. World Archaeology 13: 190209).

In contrast, Mexican archaeology is rooted in a national *mestizo* culture and has a direct connection to its native past through documents and intrasocietal contact. Because Spanish conquistadors mixed with the Native population and both parties recorded the events of the protohistoric period, the precolumbian past is strongly linked to the present. Archaeology initially developed to glorify this connection and to help construct a unified *mestizo* identity. Consequently Mexican archaeology considers its own society and inhabitants to be its subject matter (Lorenzo 1982). Thus, archaeologists focus inward on Mexico's Indian and Mexican cultures. Instead of the dichotomy of "us versus them" that prevails in the American archaeological community, Mexican archaeology has an "us-to-us" orientation (1980, B. Trigger, Archaeology and the Image of the American Indian. *American Antiquity* 45: 662676). These basic differences have underlaid archaeology in each country from initial development and to later theoretical developments. Two theoretical movements in particular had an important and strongly contrary (or contrastive) influence on the pursuit and education of archaeology today.

In the United States during the 1960s, the theoretical perspective of the New Archaeology reinforced the detached view of archaeologists. New Archaeology places great value on the scientific method and approaches archaeological data in an objective and processual manner (1992, M. Gándara, *La arqueología oficial mexicana*. INAH, México D.F., México; Lorenzo 1982). The legacy of the New Archaeology is still evident today because archaeologists continue to be trained to study the other and the unknown, and do so with a detached attitude.

Mexican archaeology, on the other hand, developed in service of the state and the Mexican people, and exclusively studied the cultural heritage of Mexico. In the 1960s, the historical particularism of Marxism encouraged Mexican archaeologists to not just gather data according to the scientific method, but to use these data to establish the connection between past societies and the modern Mexican state (1988, G. Méndez Lavielle, La quiebra política (19651976). In *La antropología en México: Panorama histórico*, vol. 2. Edited by C. García Mora, pp. 339437. INAH, México D.F, México; Olivé Negrete 1995). While Mexican archaeology has opened up to other theoretical perspectives, the strong relationship between the past and the archaeologists, the state, and the public of today still exists.

Conclusion

The role of archaeology and the relationship between the state and archaeology differ greatly in both countries with profound consequences for the educational system, which in turn helps perpetuate each country's current professional paradigm.

In the United States, academic archaeology remains most important in academia, proceeds in a detached manner in pursuit of science, and to a considerable extent maintains its specialized, mystical image largely removed from the people studied and the general public. Further, academia places greater value on theory and gradually prepares students for the academic theoretical world with a critical, detached, and objective stance. Consequently, as the requirements for the B.A. degree in anthropology reflect, the university education heavily emphasizes scientific theory and implicitly attaches lesser importance to practical experience and technical proficiency, such as mandatory fieldwork, statistics, foreign language competency, and computer and writing skills.

In Mexico, historical and socioeconomic contexts have yielded a very different kind of archaeology. Anthropology developed through strong academic and governmental influence into a discipline integrating history and science to serve the nation, its people, and the discipline. As a result, Mexican students in archaeology receive more "vocational" training to become proficient at investigating, protecting, and conserving the archaeological resources, and sharing the acquired knowledge with the public. Further, the degree prepares students for direct employment upon completion and, to meet this need, they receive direct specialized training in their subdiscipline of choice. Therefore, the *Licenciatura* offers both thorough theoretical and practical training from a sociohistorical and scientific perspective, and teaches students their responsibilities to their national heritage, the public, and the discipline.

Understanding the differences and similarities between the two educational systems and the place of archaeology in each society provides unique insights into the discipline. The comparison points to a number of neglected or controversial areas in the education and in the pursuit of archaeology both in the United States and in Mexico. The questions and suggestions below are designed to provoke thoughts on and further stimulate communication between both education and the pursuit of archaeology, and between American and Mexican archaeologists.

Professionals and students of archaeology in the United States must consider several questions. First, does the training anthropology departments provide continue to meet market demand, as the academic job market continues to shrink in relation to the rapidly growing nonacademic sector? Further, how can we bridge the gap between academic archaeology and the private sector? Third, how can academia reach out to avocational archaeologists and to the public and prepare students for these traditionally nonacademic roles? Finally, how can we develop working relationships with Native Americans and others whose lives we study? While I cannot fully answer these questions here, I will make some suggestions how American archaeology can improve its educational system based on the above analysis.

Anthropology departments should consider changes on both the undergraduate and graduate levels. First, throughout the training of any anthropologist, more emphasis should be placed on all aspects of the pursuit of archaeology, such as theory, practice, public policy, management, and public outreach in academic and nonacademic realms. Second, at the graduate level, departments should require extensive fieldwork and demand a true working knowledge of relevant foreign language and competency in laboratory methods, analytical methods, computers, and writing. Third, the idea that academic, scientific research is most important and worthy of sole recognition is no longer viable. Instead, academics need to respect and learn to engage in academic and nonacademic archaeology. Further, departments must provide an understanding of and training for the whole spectrum of archaeology and do so with a larger geographical applicability.

In the case of Mexican anthropology as a whole and archaeology in particular, I conclude with several important questions: (1) With respect to the relation between the state and archaeology, how does the state limit and shape the practice of archaeology? To what extent is it possible to realize a state archaeology and a scientific archaeology? (2) In the United States, the practice of archaeology ranges from the academy to the private sector. In Mexico, would it benefit the discipline to open the field of archaeology to external sectors outside of INAH? Or how would not opening up archaeology affect INAH? In the hypothetical case of creating new sectors next to

INAH, would it be necessary to change the structure and contents of the ENAH curriculum? Would the current relationship between the state and archaeology disappear?

Answering these questions is an extremely difficult task, which points to their relevance in evaluating American and Mexican archaeology. Identifying and evaluating problems, disadvantages, and advantages of each system can be useful in our process of reconsidering the discipline's objectives, pursuit, and education.

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POINT COUNTER POINT

A Failure to Discriminate: Querying Oxidizable Carbon Ratio (OCR) Dating

D. J. Killick, A. J. T. Jull, and G. S Burr

Oxidizable Carbon Ratio (OCR) dating is claimed by its inventor to be "an independent dating procedure. . .[that]. . offers accuracy and precision in results, significant cost savings per sample, and meaningful age estimates for both archaeological features and the landforms which are the context of the archaeological site" (Frink 1997: 5). The stated basis of the method is that buried carbon in most archaeological soils undergoes (unspecified) changes of chemical state through time. The extent of these changes is measured by the Oxidizable Carbon Ratio, which is defined as the ratio of organic carbon determined by a wet oxidation procedure to total organic carbon, as measured by a low-temperature loss on ignition procedure (Frink 1992, 1994, 1995, 1997). OCR is claimed to have been calibrated against radiocarbon and historically dated features, from which an equation relating OCR to calendar age (see below) has been derived. The method is said to be applicable from the present to at least 10,000 years ago, and its precision is stated to a constant 3 percent of the age (Frink 1997: 3).

Since its introduction in 1992, use of the technique has spread rapidly. Some 4,000 OCR samples have been processed by Archaeology Consulting Team, of Essex, VT, the sole providers of OCR dating (D. S. Frink, personal communication 1999). The OCR Web site (members.aol.com/dsfrink/ocr/ocrpage.htm) lists domestic clients in 33 states as well as clients working in Argentina, Australia, Bermuda, Canada, the Czech Republic, Somalia, and South Korea. Domestic clients include federal and state agencies, museums, cultural resource management companies, and academics. The great majority of the clients are in the southeastern United States.

The Scientific Basis of Oxidizable Carbon Ratio (OCR) Dating

Douglas S. Frink

Killick et al. have led the reader through a comparison of the OCR Carbon-Dating procedure to the laws of thermodynamics, linear statistical analysis, and established scientific practices, concluding with the "doubt [that] so simple a method will ever be truly useful to archaeologists." Beginning with a brief history of the OCR procedure as developed by this researcher (not inventor), I address each of these issues in turn. I will demonstrate that the development of the OCR acceptable scientific procedure follows practices and that the preceding article is more an example of human behavior than scientific critique.

Development of the OCR Carbon-Dating Procedure

In graduate school, I analyzed archaeological soil features using various soil analytic techniques including the Ball, Loss-on-Ignition, and Walkley-Black wet oxidation procedures. These two procedures are commonly used in soil analysis to characterize the organic carbon content in agricultural soils. Although these procedures do not yield the same values for organic carbon, the results obtained from analyses of agricultural topsoils form a constant ratio (Hesse 1971).

Results from the Ball and Walkley-Black procedures produced abnormal ratios during my analyses of hearth feature samples The rapid spread of acceptance of OCR dating by archaeologists concerns us for three reasons:

- (1) No description of the method has yet appeared in a peer-reviewed journal. (Papers reporting the results of OCR dating have appeared in several peer-reviewed journals, including Science (Saunders et al. 1997) and *Radiocarbon* (Pertulla 1997).
- (2) Neither Frink's published papers nor the OCR Web site provide a scientifically acceptable demonstration of the accuracy and precision of OCR dating.
- (3) We question the equation that Frink has proposed for deriving calendar dates from the measured OCR ratio and a number of other site-specific environmental parameters. More generally, we question the scientific basis of OCR dating.

The remainder of this article elaborates on the second and third of these concerns.

Dating Equation and Assumptions

Frink (1992, 1994, 1995) has reported a novel method of dating archaeological strata by studying the "oxidizable carbon ratio" (OCR) of soils. In this technique, dried soils are measured for "easily oxidized carbon" using a wet dichromate oxidation (Walkley and Black 1935) and "total carbon" using a loss-on-ignition method (Ball 1964). The ratio of the amount of carbon in these two measurements is the OCR. By obtaining OCR ratios for contexts dated independently by radiocarbon and historical dates, Frink (1994) developed an empirical relationship between OCR and calibrated radiocarbon dates, based on an earlier different empirical formula of Frink (1992). He then further developed an empirical equation which he asserts can be used for dating many types of soils and archaeological deposits

$$OCRDATE = \frac{(OCR \bullet \ Depth \bullet \ Tmean \bullet \ Pmean)}{(Texture \bullet \ \sqrt{pH} \bullet \sqrt{\%C} \bullet 148888)}$$

where OCRdate is the estimated "age," Depth is the mean depth of the soil sample in cm, T_{mean} is the mean annual temperature (in °F), P_{mean} is the mean annual precipitation in cm/yr, Texture is the "mean texture" of the soil as defined by Frink (1994), pH is the pH of a 1:1 mixture of soil-water paste, and percent C is the total carbon in the sample (as measured by loss on ignition). The value

(predominantly containing charcoal) from local Native American sites. The variability in the ratio appeared linear when plotted against the 14_C dates obtained from these features. Additional archaeological features evidencing more potential variables were then sought to test the preliminary observation (Frink 1992). Variability in the ratio was found to be related to soil texture and depth (factors that affect the rate of oxygen diffusion), temperature and moisture regimes (factors that control the rate of biological processes), and soil pH and concentration of organic carbon (factors that contribute to the viability and speciation of biological populations in the soil). The degree of effect for both pH and percent organic carbon was found to be nonlinear, and best modeled using the square-root of these values.

The seven variables (time, texture, depth, temperature, moisture, reactivity, and total organic carbon), along with a deduced constant (k) to account for other unidentified variables, form the OCR Carbon-Dating formula (Frink 1992, 1994). The equation used to calculate the OCRdate age estimate describes a dynamic system similar Dokuchaev's and Jenny's models of soil genesis: Soils are the result of interdependent dynamics of climate, biota, parent material, relief, and time (Buol et al. 1980; Jenny 1941). The variables deduced for the OCR formula reflect the variables of climate (temperature and rainfall), biota (soil depth, percent organic carbon, pH), parent material (texture, pH) and time (determined from documented events and 14_C estimates). Relief has not been found to be a major variable, as the samples are from flatto-gently sloped terrain (Frink 1995).

The OCR formula, presented as a hypothesis to explain the variability in results found between the Ball and Walkley-Black procedures, continues to be tested using archaeological and pedological samples from throughout the world.

Comparison to the Laws of Thermodynamics

The OCR Carbon-Dating procedure differs epistemologically from radiometric carbon-

14.8888 is a constant, presumably derived from regression of OCR against historic and radiocarbon dates (Frink 1994).

Frink (1994) further asserts that the errors in OCRdate are small, 3 percent of the age, but without explanation. More recently, Pertulla (1997) published a list of some of Frink's OCRdate information with errors in age quoted of less than 10 years, also without explanation of the error estimates. Frink (1994) further asserts that "The OCR procedure may be used as an independent test of both the radiocarbon date and the archaeological assumption, verifying one or the other, or casting doubt on both." The claim that these relatively simple measurements and other parameters have small errors is not credible, and therefore warrants further discussion.

Issues of Accuracy and Precision

How can potential users of OCR decide whether the method is sufficiently accurate and precise for their needs? The only evidence provided for the accuracy of the method in Frink's published papers (Frink 1992, 1994, 1995, 1997) or on the OCR Web site is a single graphical plot of "calculated OCR date" against "calibrated 14_C radiometric or documented age for cultural features". This is stated to be a plot of OCR dates obtained from features independently dated by radiocarbon, or else associated with features of known historical age. A regression line has been fitted to the 93 points plotted, and a correlation coefficient of .99 is claimed for the data. Since calibrated radiocarbon ages are age ranges, not points, it is inappropriate to use linear regression analysis on this data, but more importantly, the data underlying this plot are not published. We take issue with this proposed relationship and its assumptions. As mentioned, Frink (1994) presented a "calibration" of OCRdate with a correlation coefficient of 99 percent. For a parameter with 7 independent variables plus the fitting factor (constant), all of which have at least some errors, this assertion seems far-fetched. Surely, mean annual temperature and precipitation have significant errors. Surely the constant f derive from a fit of OCR to radiocarbon data must have an error yet this is specified to four decimal places! In addition, even if the 7 independently measured variables were totally without error, Frink would have to propagate the real error from the calibrated 14_C measurements. We simply cannot see any way that these 7 independent variables plus the radiocarbon ages can give a total error in age of 3 percent.

Second, these 7 independent variables are in themselves questionable. We assume that Frink (1994) derived this equation from a purely statistical parametrization of a

dating procedures. Radiometric carbon-dating procedures measure the decay of unstable carbon isotopes, following a classical physics model of entropy. The OCR procedure does not directly measure an intrinsic characteristic of the soil organic carbon. Rather, it models the dynamic and nonlinear soil system and the relative reactivity of the soil's organic carbon within that system. Dynamic systems resist entropy by organizing and maintaining themselves at a distance far from equilibrium. The OCR procedure describes an evolving pedogenic system.

This difference in epistemology should not be misconstrued as describing two separate and contradictory sciences, nor as a false dichotomy. They are alternative ways of viewing different aspects of a common world. Such a world can be legitimately viewed through the reductionist approach, describing the behavior of individual particles, and through a holistic approach, describing the collective behavior of the interdependent parts composing a system. However, one approach cannot be used as the criterion for judging the validity of the other.

The ideas that form the basis of the OCR procedure are not fundamentally new or unique. The contention that the OCR Carbon-Dating procedure "departs in significant aspects from long established empirical laws governing all chemical reaction" (Killick et al.), is based on a narrow, and biased, concept of science that is founded exclusively on systems at or near equilibrium and governed only by entropic processes. The variables used the OCR Carbon-Dating procedure equation, purported to be incorrect by Killick et al., directly translate into measurable aspects of the five factors of soil formation, the dominant model in pedogenics (Buol et al. 1980; Jenny 1941). Why these variables "cannot be correct" has not been proven: it is simply a stated and unsubstantiated belief.

The argument presented by Killick et al. serves to demonstrate Thomas Kuhn's (1996) thesis on the mechanisms by which the dominant paradigm within an established discipline will resist change resulting from and caused by new ideas. Among the practitioners, it is universally assumed that the

number of different possible variables. However, in order to determine a useful age equation, as eqn. 1 purports to be, we need to understand how these variables relate to the object of this exercise, the age of the sample. Frink's calibration curve on 93 soils from North American sites extends to over 10,000 years before present. We are asked to agree that mean current annual temperature (in F!) and mean current annual rainfall have any bearing on historical conditions for the sample. The texture parameter (as described by Frink, 1994) is ill-defined, and the inclusion of the square root of the pH and %C is simply inexplicable to us. We are unable to find any physical parameters which would explain the inclusion of these variables in this form. How can the square root of pH, itself the negative logarithm of the H+ ion concentration in a soil-water paste (in this case, the 1:1 paste mentioned) have any inverse linear relationship to age? How is the temperature in degrees F linearly related to any known physico-chemical process? The answer is: They are not.

If this were not enough, even the parameters actually measured in the OCR method leave us with many questions. Frink (1994, 1995) measured total carbon by loss on ignition (Ball 1964). We quote from the introduction of Ball (1964): "Loss on ignition has been widely dismissed as crude and inadequate as an estimate of organic matter or organic C content of soils . . . " This method does not measure total C. The weight loss on ignition includes loss of other volatiles and weight gain from oxidation of ferrous iron. Estimation of total carbon is best done by combustion and volumetric measurement of the carbon dioxide produced. Further, the identify of the "oxidizable" carbon measured by the dichromate titration method of Walkley and Black (1935) is not clear. In any case, there are many more precise ways to determine total C in samples, none of which are reported or discussed in Frink's publications.

Assumptions of the OCR Method

As has been stated by Frink (1994, 1995), the underlying idea of OCR dating is that older samples have less "oxidizable carbon" and that the organic material is converted over time into more refractory components. Although this idea is not without merit, we believe that it cannot easily be applied to soils. The residence time of carbon in different soil horizons and soil types is highly variable. (Indeed, Frink [1997] points this out himself.) For example, Scharpenseel et al. (1996) showed that a wide range of radiocarbon ages can be obtained from different fractions of soils. For example, soluble fulvic acids in a soil from Sîllingen, Germany, were post-1950 A.D., but the base-soluble humic acids were ca.1560 B.P.

dominant paradigm is unquestionable and correct. A crisis occurs when a new idea appears, and it becomes necessary to declare that the new idea is obviously false. The "scientific gaffe" of daring to compare the new OCR Carbon-Dating procedure to the established 14_C Carbon-Dating procedure is such a case. Through quotations out of context, the reader is led to the inevitable conclusion that the OCR procedure must be false. Instead, the referenced article (Frink 1994) discusses the limitations of both the 14_C and OCR procedures. The article concludes that the combined use of both procedures to obtain corroborative data from independent analytic processes may be scientifically prudent.

Comparison to Linear Statistical Analysis

Complex dynamic systems are synergistic in behavior and physiology. The sum of the parts do not describe the whole. Prigogine and Stengers (1984: 171) note that "One of the most interesting aspects of dissipative structures is their coherence. The system behaves as a whole, as if it were the site of long-range forces. In spite of the fact that interactions among molecules do not exceed a range of some 10⁻⁸ cm, the system is structured as though each molecule were 'informed' about the overall state of the system." In this informed condition, inherent errors of the parts are either accentuated through positive feedback or mollified through negative feedback. For example, anthropologists, we may expect that any given human will have the physiological and behavioral characteristics that are considered normal with variability described by a small margin of error, even though the sum of the inherent errors of the billions of individual cells in that person would express an extremely large margin of error.

The soil system, as modeled by the OCR Carbon-Dating procedure, is a complex dynamic system in which the errors of the parts are mollified by their interactions. Fractionation of the organic carbons into humins and fluvic and humic acids prior to

and the insoluble humins were 2275 B.P. (standard errors omitted).

Chemical processes which must underly the conversion of carbon between the more and less "oxidizable" compounds do not obey linear relationships with temperature and concentration as in implied by eqn. 1. Chemical transformations are controlled by thermodynamics and kinetics. If a process is thermodynamically allowed, its actual rate of reaction will depend on the temperature and concentrations of the species present (e.g., Castellan 1964). Frink (1992, 1994) alludes to the exponential dependence of reaction rates on temperature. The simplest chemical reactions are first-order differential equations (Castellan 1964: 602), that is, ones where the reaction rate is controlled on the concentration of only one soluble species, or one species in the gas phase.

$$\frac{dN}{dT} = -k[N]$$

where N is the concentration (or partial pressure if a gas) of component N, which is a reagent in the process. Also, we know that the rate constant k has the form:

$$k=k_o e^{-E/_{RT}}$$

where ko is a constant, E is the activation energy for the process, R is the gas constant in the same units, and T is the *absolute temperature* in degrees Kelvin (Castellan 1964: 607) not, as in the equation of Frink, the temperature in degrees Fahrenheit!

These equations are provided to counter an important misrepresentation in Frink (1994). In this paper (subtitled "a proposed solution to some of the problems enountered with radiocarbon data"), Frink suggests that radiocarbon dating is limited in its accuracy because it is a random process. The article implies that OCR is a better dating method than radiocarbon because the chemical transformations underlying OCR are nonrandom. This is not so; as the equations above demonstrate, chemical processes are similarly random.

Certainly, there can be problems with radiocarbon dating in some situations. However, the parameters affecting radiocarbon are well known and to a large extent, well understood. The assumptions for radiocarbon dating are quite simple, and all revolve around the question of the initial value N_0 in the radioactive decay equation:

$$N_t = N_0 e^{-\lambda - t}$$

analysis, as suggested by Killick et al., is unwarranted. The analysis portrays the behavior of the humic material, as a whole, within the dynamic soil system. While I agree that more work, based on a larger database, is still needed to establish a statistical proof of the margin of error for the OCR procedure, the ± 3 percent error is validated by existing results.

Comparison to Established Scientific Practices

The OCR Carbon-Dating procedure is a new, and still experimental, procedure that has the potential to provide reasonably accurate and precise age estimates from organic carbon within an aerobic soil context at an affordable cost. The OCR formula, the specific changes in carbon that are being recorded, and the agent(s) of these changes hypotheses. The phenomena of biodegradation and recycling of organic carbon within an aerobic soil context exist independently from the hypotheses posed by this researcher. The research present entails testing hypotheses in a number of unique pedological and anthropological contexts in different soil series throughout the world.

Field trials are being conducted in conjunction with federal and state agencies, museums, Cultural Resource Management companies and academicians (not to mention other archaeologists, pedologists and geomorphologists) alluded to in the preceding paper. These people have the unique pedological and anthropological contexts necessary to test these hypotheses, and the need for an analytic method that may provide valuable information about the samples' contexts. The conclusion by Killick et al.that archaeologists are not capable of participating in such trials because they are untrained in archaeometric techniquesis patronizing and self-serving. Their stated concern with the "rapid spread of acceptance of the OCR Carbon-Dating procedure by archaeologists" underscores this point.

In critiquing the methods used, Killick et al. state that "the methods used to measure the OCR are crude and potentially inaccurate."

where N_t is the number of 14_C atoms present at time t, and N_0 is the initial value. The amount of initial 14_C , N_0 , is known not to be constant with time, and this has been shown by the painstaking work over the last 30 years on the calibration of the radiocarbon time scale, with both dendrochronologically dated tree rings and, more recently, by comparison of 14_C ages with U-Th ages in corals (Stuiver et al. 1998a,b). We know, for example, that these fluctuations limit precision in the range 1700 1950 A.D. Other differences in N₀ due to a different initial reservoir of 14_C are well known to occur in marine samples, lakes in calcareous deposits, where dead carbon has been added to the system ("the hard-water effect"), and occasionally in other systems. These effects are generally well understood. There are certainly other problems, and if we take an archaeological sample which consists of wood grown some years before the archaeological "event" in question, obviously radiocarbon dates the time of wood growth, not the event. We also know that N_0 is higher for samples collected from material grown after 1950 A.D. due to addition of bomb 14_C to the atmosphere. This, again, is well characterized and indeed, one can often date recent events very precisely. The point here is that the physical reality underlying the radiocative decay equation is well understood, and the validity of the equation is therefore universally accepted. For OCR dating, in contrast, we are asked to accept as valid a technique for which the underlying chemical mechanisms are unknown, and for which an equation is presented that departs in significant respects from long-established empirical laws governing all chemical reactions.

Summary and Conclusions

We have argued that that OCR cannot yet be accepted as a reliable method of dating soils and features of archaeological interest because: (1) the only available plot of calculated OCR dates against independently obtained ages (radiocarbon or historic) is statistically flawed and is based upon unpublished data; (2) the stated precision of the method (3 percent of age) is not credible; (3) no chemical basis for change in OCR with age has been demonstrated; (4) the equation that purports to derive the OCRdate from the OCR, depth of burial, soil texture, pH, total carbon, and present mean annual precipitation and air temperature cannot be correct; and (5) the methods used to measure the OCR (Ball 1964; Walkley and Black 1935) are crude and potentially inaccurate.

These flaws do not necessarily invalidate the concept of dating by oxidizable carbon ratio, and we are prepared to entertain the possibility that a more credible dating method This conclusion is based on an unconscionable abuse of the literature. They quote Ball's statement of the problem, that "Loss on ignition has been widely dismissed as crude and inadequate . . ." (Ball 1964: 85), without revealing that Ball then provides his new procedure addressing these shortcomings. The procedures used in the OCR analysis are not the most complex available, nor do they purport to recover all data. The eloquence of the OCR Carbon-Dating procedure is in its ability to accurately describe the behavior of complex soil system through the use of simple, accessible, and affordable analytical methods.

Furthermore, the aspersion that the OCR Carbon-Dating procedure has not yet appeared in a peer-reviewed journal is false. Although referenced several times by Killick et al., the peer-reviewed and published paper, Application of the Oxidizable Carbon Ratio Dating Procedure and Its Implications for Pedogenic Research (Frink 1995), is ignored in their discussion of peer-review of the OCR procedure. Publications by the Soil Science Society of America are conspicuously missing from their list of "appropriate scientific journals"; however, I suggest that a soil procedure should be critiqued by a peer group capable of judging its merits within the discipline of soil science rather than radiometrics.

Conclusion

I do not operate under the illusion that the initial hypotheses defining the OCR Carbon-Dating procedure will remain unchanged by future data and by the research of others. Were the procedure to remain unchanged, it would truly be an event unparalleled in the history of science. The present direction that must be taken for scientific inquiry and critique is clear. More data must continue to be gathered, and other, independent researchers must become involved. Rather than arguing the semantics of different disciplines (a course of action that leads to censorship), scientific demonstrating whether the OCR procedure can, or cannot, be duplicated would be more productive: in other words, Science. I renew my offer made to Dr. Killick in the might be developed around it. We do, however, doubt that so simple a method will ever be truly useful to the archaeologist. Several decades of work on soils has shown that they may contain several carbon-containing fractions of very different ages (Johnson and Johnson 1995; Sharpenseel and Becker-Heidmann 1992). Any dating procedure such as OCR that fails to discriminate between these various fractions is not likely to be able to distinguish events arising from human activity from those attributable to natural soil-forming processes.

In conclusion, we cannot at present recommend the addition of OCR to the archaeologist's battery of dating techniques. Beyond this, we are deeply disturbed by the willingness of so many archaeologists to adopt a technique that has not undergone the time-honored process of peer review at an appropriate scientific journal in this case, a journal of archaeological science or a journal of geochronology. One of us has argued elsewhere (Killick and Young 1997) that the education of archaeologists should include some mandatory training in the use of archaeometric techniques. In light of the rapid acceptance of OCR by archaeologists, we can only reemphasize this recommendation.

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personal communication referenced in the preceding paper. "Beyond the concern that this new method is becoming widely used before it has been critically reviewed, should be the concern that the results of this procedure still need to be independently duplicated. Toward this eventual trial, I maintain a collection of subsamples of the nearly 4,000 samples processed to date. I would welcome you, and/or others, to undertake this study" (D. S. Frink to D. J. Killick, letter, July 8, 1999).

Finally, I recognize that it is normal for any new idea to undergo a process of ridicule, critique, and, eventually, testing, prior to its ultimate acceptance or rejection. The history of the 14_C Carbon-Dating procedure, as briefly enumerated in Killick and Young (1997), underwent a similar process during the first decades of its use. While this process may be normal and well illustrated in the history of science, it is important to distinguish between those aspects of this process that are strictly in the realm of human behavior and those that are scientific in nature. The dominant paradigm and its supporters will protect themselves from the influence of new ideas and resulting change. This resistance is commonly accomplished through control of funding and communications, but such resistance is clearly not scienceit is human behavior. ·

Douglas S. Frink is with OCR Carbon Dating, Inc., in Essex Junction, Vermont.

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Editor's Note: Periodically we will publish books received for review by our two journals, *American Antiquity* and *Latin American Antiquity*.

American Antiquity

Books Received but Not Reviewed 6/1998 5/1999

Historic Houses of Philadelphia. R. W. Moss, photographs by T. Crane. 1998. University of Pennsylvania Press, Philadelphia. \$34.95 (cloth).

Historical Development of the Chena River Waterfront, Fairbanks, Alaska: An Archaeological Perspective. Edited and compiled by P. M. Bowers and B. L. Gannon. 1998. Alaska Department of Transportation, Fairbanks. Available upon request.

How to Read Egyptian Hieroglyphs: A Step-by-Step Guide to Teach Yourself. M. Collier and B. Manley, illustrated by R. Parkinson. 1998. University of California Press, Berkeley. \$18.95 (cloth).

Inside Latvian Archaeology. Edited by O. W. Jensen, H. Karlsson, and A. Vijups. 1999. Göteborg University, Sweden.

An Introduction to the Anthropology of Melanesia. P. Stilltoe. 1998. Cambridge University Press, England. \$59.95 (cloth), \$19.95 (paper).

Journal of Iberian Archaeology. Association for the Improvement of Cooperation in Iberian Archaeology/Associacao para o Desenvolvimento da Cooperacao em Arqueologia Peninsular (ADECAP). Edited by V. Oliveira Jorge.

The Kalahari Ethnographies (18961898) of Siegfried Passarge. Nineteenth-Century Khoisan and Bantu Speaking Peoples. Translations from the German. Edited by E. N. Wilmsen. Rüdiger Köppe Verlag, Köln, Germany. DEM 78.

L'éveilleur et L'ambassadeur: Essais Archéologiques et Ethnohistoriques en Hommage à Charles A. Martijn. Edited by R. Tremblay. Paléo-Québec 28, Recherches Amérindiennes au Québec, Musée Canadien des Civilisations, Montréal. (paper).

Lemba Archaeological Project, Vol. II.1A: Excavations at Kissonerga-Mosphilia 19791992. P. Peltenberg et al. 1998. Studies in Mediterranean Archaeology, Vol. 70: 2. Paul Astroms Forlag, Jonsered, Sweden.

The Lower Mississippi Valley Expeditions of Clarence Bloomfield Moore. Edited and with an introduction by D. F. Morse and P. A. Morse. 1998. Smithsonian Institution Press, Washington, DC. \$39.95 (paper).

Man of Mana: Marius Barbeau, A Biography. L. Nowry. 1998. University of Washington Press, Seattle. \$27.95 (paper).

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Montpelier, Jamaica. A Plantation Community in Slavery and Freedom, 17391912. B. W. Higman. 1999. University of the West Indies Press, Kingston, Jamaica. \$35 (paper).

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NEWS AND NOTES



The Sainsbury Research Unit (SRU) for the arts of Africa, Oceania, and the Americas, University of East Anglia, has a 3-year Robert Sainsbury Scholarship for a candidate undertaking doctoral research, tenable at the SRU from September 2000. The scholarship covers fees and maintenance and includes a stipend to fund travel and fieldwork. Applicants should have a strong academic record and a background in anthropology, art history, archaeology, or a related subject. Full and partial grants also are offered for the 20002001 M.A. course, "Advanced Studies in the Arts of Africa, Oceania, and the Americas." Applicants for the M.A. course should have, or be about to obtain an undergraduate degree in anthropology, art history, archaeology, or a related subject. The application deadline is March 10, 2000. Visiting Research Fellowships, tenable during the calendar year 2001. Holders of a doctorate who are undertaking research for publication in the arts of Africa, Oceania, and the Americas are eligible to apply. In exceptional cases, advanced doctoral candidates may be considered. The application deadline is April 10, 2000. For further information, contact the Admissions Secretary, Sainsbury Research Unit, Sainsbury Center for Visual Arts, University of East Anglia, Norwich NR4 7TJ, UK, tel: + (01603) 592-498, fax: (01603) 259-401, email admins.sru@uea.ac.uk.

The American Institute for Conservation of Historic and Artistic Works (AIC) announces the winners of its 1999 awards, presented at the 27th Annual Meeting banquet. Several individual members and an institution were recognized for their accomplishments and extensive service to AIC and the conservation profession: Martin Burke was the recipient of the Rutherford John Gettens Award for Outstanding Service to AIC; Walter Henry received the University Products Award for Distinguished Achievement in conservation; Patricia Palmer received the Gaylord Collections Conservation Award; Roy Perkinson was conferred the Sheldon and Caroline Keck Award in recognition of dedication to the education and training of conservation professionals; Kathryn Scott was made an Honorary Member of the organization for her contribution to the field, specifically in the advancement of textile conservation; and the Colonial Williamsburg Foundation was selected as the first recipient for the Award for Outstanding Commitment to the Preservation and Care Collections, given jointly by AIC and Heritage Preservation.

The George C. Frison Institute of Archaeology and Anthropology is announcing the second year of competition in two grant programs that fosters research into faunal materials and the Paleoindian period. The grants are designed to support pilot studies of extensive Paleoindian and faunal collections held at the University of Wyoming or to contribute to ongoing investigations if the proposed studies are critical to their completion. The George C. Frison Institute is dedicated to enhancing research into questions of Paleoindian period and peopling of western hemisphere, especially as Wyoming data bears on these significant research topics. Each grant will pay up to about \$500 directly to the principal investigator. The deadline for submission application is February 1, 2000. For more information and an application, write to Director, George C. Frison Institute of Archaeology and Anthropology, University of Wyoming, Laramie, WY 82071, email: anpro1@uwyo.edu, Web: www.uwyo.edu/a&s/anth/frison. Last year's winners of the Frison Institute grant programs were Laura L. Scheiber of University of California at Berkeley in the faunal grant category and Matthew Glenn Hill of University of Wisconsin at Madison in the Paleoindian category. Both are fellows at the institute fall 1999.

The National Preservation Institute is a nonprofit organization which provides professional training for the management, development, and preservation of historic, cultural, and environmental resources. Seminars bring distinguished faculty to highlight state-of-the-art practice in important areas of historic preservation and cultural resource management. Seminars focus on enhancing the skills of professionals responsible for the preservation,

protection, and interpretation of historic, archaeological, cultural, and environmental resources. Case studies and small-group exercises focus on the information, technology, and skills which effective managers require in today's changing preservation environment. For a calendar of scheduled seminars, consult info@npi.org or www.npi.org.

The U.S. Committee, International Council on Monuments and Sites (US/ICOMOS), is seeking U.S. citizen graduate students or young professionals for paid internships in Argentina, Australia, Bulgaria, Croatia, Cuba, France, Ghana, Great Britain, India, Lithuania, Malta, Norway, Poland, Slovak Republic, Spain, Transylvania, Turkey, and other countries in summer 2000. These are entry-level, professional positions, where participants work for public and private nonprofit historic preservation organizations and agencies, under the direction of professionals, for a period of three months. Internships in the post have required training in archaeology, architecture, architectural history, cultural tourism, history, interpretation, landscape architecture, materials conservation, and museum studies. In some countries with convertible currency, interns will be paid a stipend equivalent to \$4,300 for the 12-week working internship. In other cases, the stipend is based on local wages. Exchanges offer partial or full travel grants. Applicants must be graduate students or young professionals with a B.A. degree (master's degree or near completion of master's preferred), 22 to 35 years old. Applicants should be able to demonstrate their qualifications in preservation and heritage conservation through a combination of academic and work experience; the program is intended for those with a career commitment to the field. Speaking ability in the host country's language is desirable. Attendance at the orientation and final debriefing programs is obligatory. Applications are due no later than February 15, 2000. For further information and to receive application forms, contact Ellen Delage, Director of Programs, US/ICOMOS, 401 F St. NW, Rm. 331, Washington, DC 20001-2728, tel: (202) 842-1862, fax: (202) 842-1861, email: edelage@usicomos.org. Updated information on the 2000 program will be posted as available. Further general information and the application form can be found at the US/ICOMOS Website: www.icomos.org/usicomos.

NPS OnlineThe National Park Service (NPS) has added a Timeline on Public Archaeology in the United States, some Archaeological Assistance Technical Briefs, and the Abandoned Shipwreck Act Guidelines to the Archaeology and Ethnography Program's web site at www.cr.nps.gov/aad. The timeline lists significant events and achievements in United States archaeology, beginning in 1794 when Thomas Jefferson directed the first controlled excavation and ending in 1990, when the Native American Graves Protection and Repatriation Act became law. The timeline is a great educational tool and invites readers to make suggestions about significant events and achievements to be added for the 19902000 decade. Check the timeline out at www.cr.nps.gov/aad/timeline/timeline.htm. The online publications include many of the program's Technical Briefs that were published in the late 1980s and the 1990s. Topics covered in the Briefs currently online include short-term site stabilization, archaeology in the National Historic Landmark program, archaeology in the public classroom, federal archaeological contracting, legal background on archaeological resources protection, managing archaeological collections, state archaeology weeks, and the civil prosecution process of archaeological resources protection. Additional Briefs will be online in the future. Click on www.cr.nps.gov/aad/aepubs.htm to see the complete list of Technical Briefs. In addition, the Abandoned Shipwreck Act Guidelines, published by the NPS in 1990 to assist state governments and federal agencies in developing and implementing shipwreck management programs, are now available online. Click on www.cr.nps.gov/aad/subcul.htm to access the statute and the Guidelines.

The National Park Service's National Center for Preservation Technology and Training (NCPTT) has generously provided funding to the Foundation of the American Institute for Conservation of Historic and Artistic Works (FAIC) that will enable searchable access to the complete text of the *Journal of the American Institute for Conservation (JAIC)* on the World Wide Web. NCTPP is an interdisciplinary effort by the National Park Service to advance the art, craft, and science of historic preservation in the fields of archaeology, historic architecture, historic landscapes, objects and materials conservation, and interpretation. NCPTT serves public and private practitioners through research, education, and information management. The American Institute for Conservation (AIC) is the largest conservation membership organization in the United States, and counts among its more than 3,000 members, the majority of professional conservators, conservation educators, and conservation scientists worldwide. The *JAIC* is the primary international vehicle for the distribution of peer-reviewed technical studies, research papers, treatment case studies, and ethics and standards discussions relating

to the broad field of conservation and preservation of historic and cultural work. This grant will allow the FAIC to dramatically increase the public access to the Journal by placing it online. This new format will allow for browsing by issue, table of contents, abstracts, and full article pages. The AIC/FAIC is committed to providing continuous online access to information regarding the conservation and preservation of historic and artistic works.

The following archaeological properties were listed in the National Register of Historic Places during the third quarter of 1999. For a full list of National Register listings every week, check "The Weekly List" at www.cr.nps.gov/nr/whtnew.htm.

Idaho, Power CountyAmerican Falls Archaeological District. Listed 7/1/99.

Iowa, Van Buren CountyBonaparte Pottery Archaeological District. Listed 7/15/99.

Massachusetts, Berkshire CountyRichmond Furnace Historical and Archaeological District. Listed 8/31/99.

Mississippi, Clay CountyWaide Archaeological Site. Listed 7/27/99.

Mississippi, Leflore CountyStratton Archaeological Site. Listed 7/28/99.

Missouri, McDonald CountyPineville Site. Listed 7/28/99.

New York, Livingstone County. Tram Site. Listed 9/9/99.

Pennsylvania, Franklin County. Rock Hill Farm. Listed 7/28/99.

Puerto Rico (Ball Court/Plaza Sites of Puerto Rico and the U.S. Virgin Islands MPS)Palo Hincado Site (Barranquitas municipality); Callejones Site (Lares municipality) Listed 9/2/99.

Virginia, Charles City CountyFort Pocahontas. Listed 7/27/99.

Virginia, Manassas CityCannon Branch Fort. Listed 8/26/99.

Wisconsin, Dunn CountyUpper Wakanda Park Mound Group. Listed 7/8/99.

Wisconsin, Grant County (Late Woodland Stage in Archaeological Region 8 MPS)Wyalusing State Park Mounds Archaeological District. Listed 9/21/99.

Wisconsin, Monroe County Walczak-Wontor Quarry Pit Workshop. Listed 7/8/99.

Wisconsin, Vernon CountyUpper Kickapoo Valley Prehistoric Archaeological District. Listed 9/24/99.

The National Gallery of Art, Center for Advanced Study in the Visual Arts Senior Fellowship Program, awards approximately six Senior Fellowships and twelve Visiting Senior Fellowships each year for study of the history, theory, and criticism of art, architecture, and urbanism of any geographical area and of any period. Applicants should have held the Ph.D. for a minimum of five years or possess a record of professional accomplishment. Scholars are expected to reside in Washington throughout their fellowship period and participate in the activities of the center. All grants are based on individual need. Fellows are provided with a study and subsidized luncheon privileges. The center also will consider appointment of Associates who have obtained awards for full-time research from other granting institutions and would like to be affiliated with the center. Qualifications are the same as for Senior Fellows.

For Visiting Senior Fellowships and Associate appointments:

(maximum 60 days)

Period Deadline

September 1, 2000February 28, 2001 March 21, 2000

March 1August 31, 2001 September 21, 2000

For further information and application forms, write to the Center for Advanced Study in the Visual Arts, National Gallery of Art, Washington, DC 20565, tel: (202) 842-6482, fax: (202) 842-6733, email: advstudy@nga.gov, Web: www.nga.gov/resources/casva.htm.

POSITIONS OP



Position: Assistant/Associate Professor, Historical Archaeologist

Location: DePaul University, Chicago, Illinois

DePaul University seeks a historical archaeologist for tenure-track, assistant or associate professor rank, beginning fall 2000. The area specialty is open, but an interest in urban, industrial areas and a willingness to develop pedagogical focus on Chicago is desired. The successful candidate must be dedicated to undergraduate teaching, interest in working with interdisciplinary programs, and establishing institutional links with local cultural institutions. Interest in developing a field school in metropolitan areas is encouraged. Ph.D. must be completed by June 2000. DePaul University is committed to recruiting a diverse faculty to complement the diversity of its student body and the Chicago area, thus underrepresented groups and women are strongly encouraged to apply. The submission deadline is November 25, 1999. Send cover letter, vita, and names of references to Larry Mayo, Anthropology Program, DePaul University, 2320 N. Kenmore Ave., Chicago, IL 60614-3250. DePaul University is committed to diversity and equality in education and employment.

Position: Assistant Curator

Location: The Field Museum, Chicago, Illinois

The Field Museum invites applications for an assistant curator in complex societies of the Americas. We wish to encourage applications from energetic scholars with demonstrated commitments to field research, successful grant writing, and high-visibility publications. Strong promise for contributing to public programs and education in a museum environment and to teaching at the university level is highly desirable. Candidates must have experience with material culture in their research and be willing to take an active role in working directly with the museum's extensive collections. The individual should have the potential to contribute to theoretical discussions that extend beyond their areas of topical and geographical expertise. We are looking for candidates who will make significant long-term contributions to a strong and growing Department of Anthropology. Although the geographical focus of this position is open to any region in the Americas, preference will be given to candidates who complement, rather than duplicate, the area expertise and field experience of our existing curatorial faculty. The Field Museum is an equal opportunity employer and strongly encourages applicants with diverse backgrounds. Send letter of application, a statement of future research goals and objectives, as well as a list of three potential referees to Chair, Search Committee, Dept. of Anthropology, The Field Museum, 1400 S.

Lake Shore Dr., Chicago, IL 60605-2496. The deadline is January 7, 2000.

Position: Assistant Professor, Geographer

Location: University of Illinois at Chicago, Chicago, Illinois

The University of Illinois at Chicago is offering a tenure-track position for a geographer at the assistant professor level, to begin in August 2000. Primary teaching and research competence in G.I.S. and mapping and/or remote sensing is required. A topical focus in environmental science is preferred. Other related specialties tied to environmental science will be considered. Candidate must hold a Ph.D. degree at the time of appointment. The search is open until the position is filled, but fullest consideration will be given to applications received by February 15, 2000. Applicants should submit a cover letter that includes or is accompanied by a statement of professional objectives, a curriculum vita, and the names and addresses of three referees. Applications should be sent to Chair, G.I.S. Search Committee, Program in Geography, Dept. of Anthropology, M/C-027, 1007 W. Harrision St., Chicago, IL 60607-7138. The University of Illinois at Chicago is an Affirmative Action/Equal Opportunity Employer.

Position: Faculty Position **Location:** New York University

The Department of Anthropology at New York University invites applications from outstanding scholars in anthropological archaeology pending administrative and budgetary approval. The department is looking for scholars with exceptional records in research and teaching, active field research projects, and intellectual leadership. While rank, region, and area of specialization are open, New World is preferred and a junior appointment is most likely. Applicants should have dissertation in hand. Send application (including letter, vita, and names of three referees) by October 15, 1999, to Chair, Department of Anthropology, New York University, 25 Waverly Pl., New York, NY, 10003. NYU encourages applications from women and members of minority groups.

Position: Assistant Director, Cultural Resource Office

Location: Northwestern State University, Natchitoches, Louisianna

The Cultural Resource Office at Northwestern State University seeks a candidate for a full-time assistant director. Job duties include survey and evaluation of properties and developing a management plan based on survey results. A Ph.D. in anthropology or related field plus two years experience in Southeastern archaeology/CRM are required; ABD will be considered. The successful applicant will possess strong organizational skills, supervisory experience, and demonstrable success in managing field projects and report writing. Basic knowledge of GIS is desired. Submit a letter of intent describing CRM experience, résumé, copies of transcripts, and three letters of reference to Cultural Resource Office, Dept. of Social Sciences, Northwestern State University, Natchitoches, LA 71497. The position will remain open until filled.

Position: Assistant Professor/Assistant Curator

Location: Michigan State University, East Lansing, Michigan

The Department of Anthropology and the Michigan State University (MSU) Museum invite applications for a tenure- track faculty member at the assistant professor and assistant curator level, specializing in Great Lakes archaeology. The candidate will be jointly appointed by anthropology, the tenure home department, and the MSU Museum, which serves as the state's largest museum resource for natural and cultural history, particularly that of the Great Lakes region. The individual must hold the Ph.D., have a demonstrated research interest in Great Lakes prehistory or historic archaeology, and be capable of teaching general and specialty courses at the undergraduate and graduate levels. While temporal, spatial, and topical specialties are open, prospective candidates are expected to actively engage in field research, generate extramural research funding, and publish research results. The candidate will teach three anthropology courses per academic year (specialty as well as introductory, general, and interdisciplinary courses), work with graduate and undergraduate students in an advisory capacity in relation to classes offered and areas of mutual academic interest, and participate in other expected faculty activities. The candidate's museum responsibilities include assisting in the curation of major Great Lakes prehistoric and historic archaeological collections, as well as program and exhibit development. The candidate also will work in cooperation with other Great Lakes scholars and university programs such as the Center for Great Lakes Culture. The position begins August 15, 2000; the application deadline is December 15, 1999. Send a letter of application, vitae, and names of three references to Great Lakes Archaeology Search Committee, Dept. of Anthropology, 354 Baker Hall, Michigan State University, East Lansing, MI 48824-1118. EOE/AAE.

Position: Principal Investigator

Location: PAL, Pawtucket, Rhode Island

PAL, an independent, nonprofit CRM consulting firm, seeks an experienced senior archaeologist/principal investigator. Requirements include a graduate degree in archaeology or anthropology, at least five years of CRM experience, knowledge of federal and state preservation law, ability to manage multiple projects, superior verbal and written communication skills, computer literacy, established track record of research in the archaeology of the northeastern United States, and strong analytical skills. Send letter of

interest, vita, salary requirements, and list of references to Donna Callahan, Human Resources Director, PAL, 210 Lonsdale Ave., Pawtucket, RI 02860, tel: (401) 728-8780, fax: (401) 728-8784, email: dccpal@aol.com.

Position: Archaeology/Physical Anthropologist

Location: Simon Fraser University, Burnaby, British Columbia

The Department of Archaeology at Simon Fraser University has approval to advertise for a tenure-track faculty appointment in archaeology and/or physical anthropology at the rank of assistant professor beginning September 1, 2000. Applicants must hold a Ph.D. and have a regional specialization within the Pacific Rim. Archaeological applicants should have a theoretical/topical interest in complex societies and an active record of field research. Specialization within the field of physical anthropology is open. As part of the application, individuals must include a full curriculum vitae, a summary statement of qualifications and research interests as related to the appointment, and the names and addresses of three referees. The position is subject to final budgetary approval. Written inquiries or applications may be made to the Appointments Committee Chair, Dept. of Archaeology, Simon Fraser University, Burnaby, B.C. V5A 1S6, Canada. The deadline for receipt of applications is December 31, 1999. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. Simon Fraser University is committed to the principle of equity in employment and offers equal employment opportunities to qualified applicants.

Position: Senior Project Archaeologist/Principal Investigator **Location:** Brian F. Smith and Associates, Poway, California

Brian F. Smith and Associates is a consulting firm located in San Diego County specializing in prehistoric and historic studies in southern California. We are seeking to fill the full-time position of senior project archaeologist/principal investigator as soon as possible. This position is intended for a qualified individual with experience in California archaeology and capable of bidding, directing, conducting research, and reporting, for projects of all sizes. The individual should be capable to direct surveys, significance testing, and data recovery projects, track laboratory analyses, and prepare detailed technical reports. Qualifications must include an M.A. or, preferably, a Ph.D. in anthropology, with an emphasis in archaeology or Southwest prehistory, with ample experience to demonstrate abilities listed above. Critical factors in candidate selection will include report writing experience, experience in southern California, and the ability to meet project schedules and budgets. Compensation will be commensurate with education and experience. This is not a temporary position; we are looking for individuals interested in accepting responsibility and acting independently towards achieving project goals. To apply, send a cover letter summarizing interest and experience, salary history, and references, and include a full résumé, writing examples, and four references. Submit responses to Brian F. Smith and Associates, 12528 Kirkham Ct., Suite 3, Poway, CA 92064, tel: (858) 486-0245.

Position: Director of Consulting Archaeology Program and Lecturer in Anthropology

Location: University of Vermont, Burlington, Vermont

The University of Vermont (UVM), Burlington seeks a director to assume responsibility for the oversight of all aspects of the UVM Consulting Archaeology Program and carry a quarter-time teaching load in the UVM Department of Anthropology. Ph.D. or ABD in anthropology, with specialization in archaeology, and teaching and public education experience are required. Knowledge and experience in all aspects of northern New England archaeology and culture resource management also are required, including design and implementation of multiple phases of consulting archaeology and research projects. Background in Native American and Euro-American research is preferable; knowledge of other research areas and/or specialties is useful. Administrative and supervisory experience is required. Evidence of entrepreneurial ability is highly desirable. The successful candidate must be eligible, within a reasonable time frame, to satisfy State Historic Preservation Office (Section 106) criteria to conduct professional archaeological investigations in Vermont and other northern New England states. The candidate must be able to work non-traditional hours, travel extensively, and actively engage in field and lab work. Competitive salary. Application reviews will begin November 1, 1999. The position is available January 15, 2000. Send a letter of application outlining relevant qualifications, résumé, and the names, addresses and telephone numbers/email addresses of at least three references to the CAP Director Search Committee, Dept. of Anthropology, Williams Hall, University of Vermont, Burlington, VT 05405.

Position: Faculty Position

Location: Warren Wilson College, Asheville, North Carolina

Warren Wilson College is offering a full-time, continuing faculty position in archaeology beginning August, 2000. We seek candidates who specialize in the southeastern United States and who can contribute to interdisciplinary environmental studies. Teaching responsibilities include introductory and upper level courses in archaeology, Native Americans of the Southeast, and courses relevant to our interdisciplinary environmental studies program. Introductory physical anthropology also is desirable. Other responsibilities may include directing an established summer field school on campus, in cooperation with the Eastern Band of the Cherokee, and supervising a student work crew that works with materials from the on-campus dig. We seek dynamic, inspiring teachers who are interested in varied instructional strategies and can involve and guide undergraduates in research. Teaching experience and a Ph.D. are required. Review of applications will begin November 30, 1999, and will continue until the position is filled. We particularly invite applications from ethnic minorities and members of other groups historically underrepresented in academia. Submit a cover letter, curriculum vitae, official graduate transcripts, and three letters of reference to Virginia McKinley, Vice President for Academic Affairs, Warren Wilson College, P.O. Box 9000, Asheville, NC 28815-9000.

Position: Director, Center for Environment and Society **Location:** Washington College, Chestertown, Maryland

Located in the immediate vicinity of the Chesapeake Bay, one of the world's most complex ecosystems, Washington College is creating an innovative academic center to study natural and human environments in their mutual interdependence. The College is seeking a director with a broad and interdisciplinary grasp of environmental issues and their human and social dimensions. Applications from a variety of disciplines concerned with environmental issues and their impact on human affairs will be considered. Major responsibilities include: to launch, develop, and manage innovative programs for the study of the interaction of environment and society; sponsor and support research and public outreach efforts; forge connections with a broad range of professionals and agencies in academia, government, business, and the non-profit sector; build and work with an advisory council; write grants; and supervise the operations of the Center and its support staff. The appointment carries faculty rank appropriate to qualifications and includes teaching responsibilities at a reduced load. The anticipated starting date is July 1, 2000. Applicants should submit a cover letter, curriculum vitae, and the names of three references to Joachim J. Scholz, Provost and Dean of the College, Washington College, 300 Washington Ave., Chestertown, MD 21620. Review of applications will begin on November 15, 1999, and will continue until the position is filled. Washington College is an Equal Opportunity Employer. Minorities and women are strongly encouraged to apply.



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Calendar

December 15, 1999

An international Wetlands Archaeology Conference (WARP) will be held in Gainesville, Florida, with the theme, "The Significance of the Survival of Organic Materials from Archaeological Contexts." Emphasis will be on new sites, comparison of wet/dry/frozen sites and materials, preservation techniques, and the responsibility of government and developers to protect the heritage component of wetlands. On Friday, December 3, there will be an all-day field trip to several Florida springs and wetland sites. For more information, contact Barbara A. Purdy, 1519 NW 25th Terrace, Gainesville, FL 32605, email: bpurdy@ufl.edu.

January 1415, 2000

The Southwest Symposium 2000 will be held at the James A. Little Theater in Santa Fe, New Mexico. Four half-day sessions and poster presentations will explore the theme, "At the Millennium: Change and Challenge in the Greater Southwest." For further information, contact Sarah Schlanger, New Mexico Bureau of Land Management, P.O. Box 27115, Santa Fe, NM 87502-7115, tel: (505) 438-7454, email: sschlang@nm.blm.gov.

February 2617, 2000

The 28th Annual Midwest Conference on Andean and Amazonian Archaeology and Ethnohistory will be held in Fort Wayne, Indiana. The deadline for abstracts is January 31, 2000. For information, contact Richard Sutter, Department of Sociology and Anthropology, Indiana-Purdue University at Fort Wayne, Fort Wayne, IN 46805-1499, tel: (219) 481-667, fax: (219) 481-6985, email: SutterR@ipfw.edu, Web: www.ipfw.edu/cm1/sutterr/web/midwest/default.html.

March 34, 2000

The 17th Annual CAI Visiting Scholar Conference will be held at Southern Illinois University at Carbondale. The conference will explore theoretical and methodological issues relating to social power and power relations. For program and registration information, contact Maria O'Donovan, Center for Archaeological Investigations, Southern Illinois University at Carbondale, Faner 3479, Mailcode 4527, Carbondale, IL 62901-4527, email: modonova@siu.edu, Web: www.siu.edu/~cai/vs.htm.



March 1718, 2000

The 18th Symposium on Ohio Valley Urban and Historical Archaeology will be held at Shakertown at Pleasant Hill, Kentucky. For more information, contact Kit W. Wesler, Wickliffe Mounds Research Center, P.O. Box 155, Wickliffe, KY 42087, tel: (270) 335-3681, email: kit.wesler@murraystate.edu.

April 59, 2000

The 65th Annual Meeting of the Society for American Archaeology will be held at the Philadelphia Marriott Hotel, Philadelphia. For information, contact SAA Headquarters, 900 Second St. NE #12, Washington, DC 20002, tel: (202) 789-8200, email: meetings@saa.org, Web: www.saa.org.

April 68, 2000

The international Clark Conference will address the issues raised when the art of several areas of the world is brought together, as in a museum, a university course, a book, a theory, a library, or a database. Clark Conferences annually strive to convene a group of major scholars from around the world to explore and debate a vital topic raised by the study, presentation, and explanation of art, whether in universities or museums, exhibitions or books. This year's "Compression vs. Expression: Containing and Explaining the World's Art" is organized by John Onians, director of the World Art Research Programme at the University of East Anglia, and consultative chair of Research and Academic Programs, Clark Art Institute. The conference will be held at the Sterling and Francine Clark Art Institute in Williamstown, Massachusetts. For more information, call the Events Office at (413) 458-2303, ext. 324.

April 1215, 2000

The 69th Annual Meeting for the American Association of Physical Anthropologists will be held at the Adam's Mark Hotel on the riverwalk in San Antonio, Texas. For program information, contact Mark Teaford, Dept. of Cell Biology and Anatomy, Johns Hopkins University School of Medicine, 725 N. Wolfe St., Baltimore, MD 21205, tel: (410) 955-7034, fax: (410) 955-4129, email: mteaford@jhmi.edu. For information on local arrangements, contact Sarah Williams-Blangero, Dept. of Genetics, Southwest Foundation for Biomedical Research, P.O. Box 760549, tel: (210) 258-9434, fax: (210) 670-3317, email: sarah@darwin.sfbr.org.

April 2629, 2000

The Western Social Science Association Annual Meeting will be held at the Town and Country Resort and Convention Center in San Diego, California. The anthropology section seeks papers on all subfields and topics, but interdisciplinary and/or western states focus is encouraged. For information, contact Barbara Lass, Phoebe Hearst Museum of Anthropology, 103 Kroeber Hall, #3712, University of California-Berkeley, Berkeley, CA, 94720-3712, tel: (510) 526-1245 or (510) 642-6843, email lass@uclink4.berkeley.edu.

April 2629, 2000

The fourth biennial CINARCHEA Internationales Archäologie-Film-Festival will feature films about archaeology made between 1996 and 2000. Screenings will be held at the Stadtgalerie in central Kiel. The program includes recent international productions, previous international prize winners, notable older productions, and films about experimental archaeology. The associated scholarly conference will emphasize underwater archaeology with the theme, "Meer Gedächtnis" (SeasMinding Memory), which will also be illustrated by the exhibition "The Baltic SeaOur Heritage Underwater." A bilingual (German/English) compilation of 1998 symposium papers on "Archaeology and the New Media" is available for DM 20. Entry deadline is December 14, 1999. Contact: Kurt Denzer, Director, CINARCHEA, Breiter Weg 10, D-24105 Kiel, Germany, tel: + (49-431) 57-94-941/942, fax: (49-431) 57-61-94-940, email: agfilm@zentr-verw.uni-kiel.de, Web: www.uni-kiel.de/cinarchea/index.htm.

May 1519, 2000

The 32nd International Symposium of Archaeometry (Archaeometry 2000) will be held in Mexico City. For information, contact Instituto de Investigaciones Antropológicas, UNAM Circuito Exterior s/n, Ciudad Universitaria, Coyoacán 04510 Mexico, D.F., Mexico, fax: + (525) 622-9651 or + (525) 665-2959, email: archaeom@servidor.unam.mx, Web: www.archaeometry.unam.mx.

May 1921, 2000

The Third National Conference on Women and Historic Preservation will be held at Mount Vernon College, Washington, D.C. It is sponsored by the Preservation Planning and Design Program, University of Washington; the Regional Director, Northeast Region, National Park Service; and the Organization of American Historians; and hosted by the American Studies Department and Historic Preservation Program, George Washington University, and the Women in Power Leadership Program, George Washington University at Mount Vernon College. Proposals for presentations on any aspect of women and historic preservation are invited, particularly those that address the intersections of gender, race, class, ethnicity, and sexuality in the context of historic preservation or which provide an international basis for comparison. Submit proposals for papers, panels, or workshops to Gail Dubrow, Conference Chair, Conference on Women and Historic Preservation, Preservation

Planning and Design Program, University of Washington, P.O. Box 355740, Seattle, WA 98195-5740, email: womenpres@hotmail.com, Web: www.caup.washington.edu/WomenPres.

June 510, 2000

Screenings of the 3rd AGON International Meeting of Archaeological Film of the Mediterranean Area will be held at the Apollon Theater at 19 Stadiou St. in Athens, Greece. Continuing established traditions, daytime sessions of this biennial festival will focus on films about Mediterranean archaeology from prehistory to modern times. To be eligible, they must run 50 minutes or less and have been completed after January 1, 1996. Documentaries about folk art and other endangered Mediterranean popular traditions will be shown at evening sessions, along with productions including some narrative selectionshighlighting other aspects of Mediterranean culture. Award-winners may be featured at additional screenings in off-years. For information, contact Maria Palatou, Secretary. AGON 2000 c/o Archaiologia ke Technes (Archaeology and Arts), 4a Karitsi Square, 105 61 Athens, Greece, tel/fax: + (30-1) 33-12-991.

July 1014, 2000

The International Congress of Ameri-canists will hold its 50th meeting in Warsaw, Poland, with the theme, "Praying for Rain: Style and Meaning as a Response to the Environment in Ancient American Art and Architecture." Natural phenomena such as topographic and astronomical features, weather, and flora and fauna composed an ecological web that provided inspiration for ancient American artists and architects. The manipulation and control of natural forces was a major leitmotif of most precontact art styles. This symposium will address art and architecture as the most tangible and enduring manifestation of human reaction to the environment in the Americas, with emphasis on the adversarial aspects of the human/nature relationship. Interdisciplinary papers will incorporate ecological, archaeological, ethnohistorical, and art historical data. Abstracts are due by December 1, 1999, to E. Michael Whit-tington, Curator of Pre-Columbian and African Art, Mint Museum of Art, 2730 Randolph Rd., Charlotte, NC, 28207, tel: (704) 337-2074, fax: (704) 337-2101, email: mwhittington@mintmuseum.org, or Virginia E. Miller, Associate Professor, Department of Art History, University of Illinois, 202A Henry Hall, 935 W. Harrison St., Chicago, IL 60607-7039, tel: (773) 413-2467, fax: (773) 413-2460, email: vem@uic.edu.



August 712, 2000

The Fifth International Conference on Easter Island and the East Pacific will be sponsored by the Easter Island Foundation and hosted by the Hawai'i Preparatory Academy on Hawai'i Island. Papers will focus on Polynesian prehistory, island landscape studies, arts of the Pacific, Polynesian languages and literature, colonization and exploration, paleobotany, and conservation issues. For further information, contact Pacific 2000, Easter Island Foundation, P.O. Box 6774, Los Osos, CA 93412, email: rapanui@compuserve.com.

November 1519, 2000

The 99th Annual Meeting of the American Anthropological Association will be held at the San Francisco Hilton and Towers, San Francisco, California, with the theme, "The Public Face of Anthropology." The deadline for submissions is April 19, 2000. For submission information, see the January 2000 *Anthropology News* or contact AAA Meetings, 4350 N. Fairfax Dr., Suite 640, Arlington, VA 22203-1620, tel: (703) 528-1902 ext. 2, email: jmeier@aaanet.org.

October 57, 2000

The 26th Great Basin Anthropological Conference will be held at the David Eccles Conference Center, Ogden, Utah. The conference Web site www.isu.edu/GBAC can be checked for information on past participants, conference development and, as the time approaches, for conference details. The program chair is Steven

Simms, Utah State University, email: ssimms@hass.usu.edu, and local arrangements chair is Brooke Arkush, Weber State University, email: barkush@weber.edu.

November 16, 2000

The CBA/BUFVC Channel 4 Film Awards Ceremony will be held in the Great Hall of Edinburgh Castle. These biennial awards sponsored by Britain's Channel Four Television are presented by the Council for British Archaeology/British Film & Video Council Working Party to British-made broadcast and non-broadcast productions. Due to a departure from the usual selection process in 1998 in conjunction with the 21st anniversary of the whole British Archaeological Awards program, productions released from 1996 are eligible for the current competition. Prize winners also are screened during the Theoretical Archaeology Group meetings. The entry deadline is June 30, 2000. For information, contact Cathy Grant, Honorary Secretary, Council for British Archaeology/British Universities Film & Video Council Working Party, 77 Wells St., London W1P 3RE, England, tel: + (44-171) 393-1500, fax: + (44-171) 393-1555, email: bufvc@open.ac.uk (with "Attn: Cathy Grant" on the subject line), Web: www.bufvc.ac.uk.

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