"To present Seattle, my goal was to do a systematic survey. My pedestrian transects would be north and south along First, Second, etc., with perpendicular transects along cross streets. In addition to a typical restaurant list, I envisioned presenting the data as a chloropleth map showing the density of (1) coffee shops suitable for grabbing a continental-style breakfast, (2) establishments with large selections of microbrews on tap, and (3) restaurants that smelled really good at dinner time. "

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Editor's Corner

Are there too many Ph.D.'s in archaeology? Or is the question really, Are the Ph.D.s trained in the vast majority of graduate programs likely to obtain meaningful employment in the academy? If the answer is no, is what they are learning in these programs going to serve them well in the increasingly primary market of the contract field? Joseph Schuldenrein examines these and other questions in a very interesting report on a conference held recently at Barnard College in this issue's Insights column. The conference offered a wide spectrum of opinion from the private sector, the academy, museums, and government service on just what kinds of training archaeologists need to create their careers in these difficult times. Some of the most interesting commentary came from graduate students facing the realities of the job market with a mixture of confidence, optimism, and resignation. The report can be read at a number of levels, but the one that captured my attention was only obliquely mentioned: the ethical issue of producing many more Ph.D.s than are remotely likely to get academic employment. I have had colleagues argue that graduate programs should declare a moratorium on admissions for varying lengths of time. Others argue that as long as programs honestly inform students at the start of their graduate careers that the chances of obtaining that dream job are very small, we have discharged our ethical duties and can keep our programs running. I imagine that while most of us feel the ethical pinch in continuing to produce students, we are also very aware of the consequences of allowing this ethical concern to come to the attention of predatory administrators with cost-cutting agendas. Schuldenrein and others suggest that a middle ground would be to retool aspects of our programs to provide our students with some of the very different skills they need to succeed in the contract world. This too may prove impractical for most of us, but it may be a sensible option for some programs to pursue. One thing is certain in all of this: we as a discipline must take this question seriously over the next decade and develop some acceptable responses. If we don't, someone else will do it for us, and it's quite likely we won't like the results.
Update on ROPA

Vin Steponaitis

As reported by Secretary Lynne Sebastian (page 3), SAA's members just voted to adopt the "Proposal for the Establishment of the Register of Professional Archaeologists," also known as ROPA [for additional background, see SAA Bulletin 15(3):6-14]. The proposal passed convincingly, by a three-to-one margin. At the same time, the Society for Historical Archaeology (SHA) also held a membership vote on this proposal; their members passed it as well.

These two votes, coupled with the earlier endorsement of the proposal by the Society of Professional Archeologists (SOPA), mean that steps will now be taken to formally establish ROPA under the joint sponsorship of SAA and SHA. The Archaeological Institute of America (AIA), which also collaborated in drafting the proposal, has not yet voted on whether to join the consortium of sponsoring organizations, but is expected to decide soon.

Under the terms of the proposal, ROPA will be legally established as a nonprofit organization, separate from SAA, and will be governed by its own board of directors. The ROPA's initial "transitional" board will consist of three of SOPA's current officers--President Bill Lees, Treasurer Rochelle Marrinan, and Secretary John Hart--and one additional member named by each of the sponsoring organizations. I have just appointed our immediate past president, Bill Lipe, to serve as SAA's representative on this transitional board. Bill took an active part in drafting the ROPA proposal and understands the key issues as well as anyone. I'm very grateful to Bill for taking on this important task.

The first meeting of this transitional board will take place at the SHA annual meeting in Atlanta on January 10, 1988. The sponsoring organizations and AIA have been invited to send additional representatives to this meeting if they wish. Bill Lipe and I will both attend on behalf of SAA. Among the topics to be tackled at this inaugural meeting are the drafting of bylaws and the mechanics of starting ROPA.

As soon as ROPA is created, it will take over SOPA's day-to-day functions, and SOPA itself will become "dormant." That is, SOPA will retain its legal status as an organization but will become inactive. If ROPA meets its membership targets and proves to be financially viable, SOPA will disband. On the other hand, if ROPA doesn't flourish (hopefully, an unlikely event), then SOPA will revive and ROPA will dissolve.

The members of SAA, SHA, and SOPA have already taken an important step toward enhancing professionalism in our discipline by passing the ROPA proposal. But that is just the first step. It's now up to all of us to make ROPA work. The key to ROPA's success lies in the participation of a large fraction of SAA's members. The more of us to become Registered Professional Archaeologists (RPAs), the more credibility that credential will have, and the more effective ROPA's grievance procedures will be in enforcing professional standards. All current SOPA members will automatically become RPAs, but these alone will not provide the critical mass that ROPA needs to be successful. So I encourage all qualified SAA members to register with ROPA as soon as the application procedures are set up. More information on these procedures will be published in future issues of the Bulletin and will be made available through SAA's web site (www.saa.org).

Vin Steponaitis is president of SAA.
From the President--

Dear Colleague:

As I'm sure you know, members are the lifeblood of our organization. Everything SAA does depends on its members: our publications, annual meetings, government affairs program, and public education efforts would simply not exist if it weren't for volunteers who serve on committees, submit and review articles, participate in meetings, lobby their government, and so forth. In addition, virtually all of SAA's operations are financed by the dues that we, as members, pay each year.

Thus, the more members we have, the more effective our programs become. And a larger membership creates economies of scale that allow dues to remain lower than they might otherwise become.

Currently, more than 6,100 individuals belong to SAA. Yet there are still thousands of practicing archaeologists in the U. S., Canada, and Latin America who do not belong. Recruiting these potential members will be a focus of SAA's efforts in the coming year. And, as with so many other SAA initiatives, this one cannot succeed without your help.

I ask each of you to help by trying to recruit at least one new member for 1998. If everyone participates in this "Member Get A Member" campaign, our organization will become larger and more effective than ever.

If you would like membership brochures for distribution, please contact SAA's Membership Department by telephone (202) 789-8200, fax (202) 789-0284, or email membership@saa.org. Staff will be happy to assist you in whatever way they can.

I hope that each of you will join me this year in trying to make our society larger and stronger. Thank you for being part of SAA and for making possible all the good things that SAA does!

Sincerely,

Vin Steponaitis
President
Report--Board of Directors Meeting

The SAA Board of Directors met October 13 through November 2 in Albuquerque, New Mexico. Because of the Society's shift to a calendar year rather than July-June fiscal year, the fall Board meetings will be focused heavily on financial matters, while the spring Board meetings will be devoted more to committee activities and publications.

The Board reviewed the FY 96-97 budget, which yielded a $59,000 surplus that has been used to begin rebuilding the Society's financial reserves. The Board also reviewed the current financial information for the "short year," July through December 1997 budget. This short year was necessary to move us to the calendar fiscal year, and because the majority of the Society's revenues are collected in the first six months of each year, the short year budget will most likely show a technical deficit. Overall, however, the financial situation of the Society has improved substantially in the last year and a half. The Board also approved an FY98 budget that projects a $41,000 surplus. Again, the surplus will be used to continue rebuilding the Society's strategic reserves.

In other financially related matters, the Board authorized an endowment fund for public education activities and approved a fund-raising plan submitted by the Native American Scholarships committee. The Board also approved a payout policy for SAA endowment funds, an investment policy for the reserve funds, and a gift-acceptance policy.

In other actions, the Board approved a list of potential committee chairs, a committee appointments policy, and a series of revisions to the committee charges. The Board approved a request from the Committee on the Status of Women in Archaeology to conduct a pilot survey on the status of women in consulting archaeology, and established interest groups for women in archaeology and for researchers interested in the study of fiber and perishable artifacts. The Board also strongly supported a proposal from the Public Education Committee to pursue a possible partnership with Haskell Indian Nations University to develop workshops for Native American educators.

The Board discussed several government affairs issues, including the draft 36 CFR 800 regulations implementing Section 106 of the National Historic Preservation Act recently adopted by the Advisory Council on Historic Preservation and proposed amendments to the Native American Graves Protection and Repatriation Act. The Board authorized the President and the Government Affairs Committee chair to appoint "issue teams," informal advisory groups that can be constituted quickly to advise the Executive Committee and the Board about rapidly developing government affairs issues.

Finally, the Board approved Denver as the site for the 2002 annual meeting and authorized the Executive Director to begin contract negotiations for that meeting.

Respectfully submitted,

Lynne Sebastian
Secretary
Archaeopolitics

Donald Forsyth Craib

In the waning moments of the first session of the 105th Congress, Rep. Doc Hastings (R-Wash.) introduced H.R. 2893, an amendment to the Native American Graves Protection and Repatriation Act (NAGPRA). The amendment would increase opportunity for scientific study of human remains and cultural items; would remove a provision for the return of cultural items to tribes lacking cultural affiliation, based only on recent land use; and would clarify NAGPRA's language concerning the treatment of inadvertent discoveries of human remains and objects.

Enactment of H.R. 2893 would result in a shift in the way in which NAGPRA balances public interests in America's past (as illuminated mainly by scientists) and the appropriately privileged interests of related Indian tribes and Native Hawaiian organizations.

H.R. 2893 was stimulated by the controversy over the disposition of the Kennewick skeleton discovered in Rep. Hastings's district. The U. S. Army Corps of Engineers' decision that these remains were culturally affiliated with the Umatilla tribe, and its decision to repatriate the remains without scientific study, not only led to a lawsuit by a number of prominent scientists but also apparently to a relatively widespread public concern that NAGPRA may have gone too far in compromising the broad public interest in the nation's prehistoric heritage. As a response to this controversy, H.R. 2893 would achieve three major objectives:

(1) To enhance scientific recording and the study of cultural items.

It would require that newly excavated cultural items (human remains, funerary objects, sacred objects, and objects of cultural patrimony) on federal lands be recorded according to generally accepted scientific standards and that federal agencies retain control over those items for 90 days after the publication of a notice of their discovery in the Federal Register. In addition, study of culturally unaffiliated remains and items is permitted (but not required) to determine cultural affiliation or to obtain information of scientific, historical, or cultural value. Culturally affiliated remains and items may be studied only if the study is "reasonably expected to provide significant new information concerning the prehistory or history of the United States," and only so long as such study does not delay repatriation of items claimed by a culturally affiliated tribe or Native Hawaiian organization for more than 180 days.

In this context it is important to recognize that H.R. 2893 neither diminishes the ability of culturally affiliated tribes or Native Hawaiian organizations to achieve repatriation nor alters NAGPRA's definition of cultural affiliation. No study would be allowed if the remains or items are claimed by lineal descendants, if the study would violate a museum's policies or prior agreements, or if the scientific benefits of the study are clearly outweighed curatorial, cultural, or other reasonable concerns. Newly excavated or discovered items from tribal lands also would be exempt from study, unless permitted by the tribe. Control by lineal descendants of the remains and items of their ancestors, and the control of Indian tribes over remains and items recently excavated on their lands, is slightly enhanced by the amendment because those remains or items would no longer be subject to NAGPRA's current provisions for scientific study.

(2) To eliminate the provision of NAGPRA that provides for repatriation of recently excavated cultural items based on recent land use and in the absence of cultural affiliation.
Under the proposed change--removing Section 3(a)(2)(C)--these cultural items still would be subject to repatriation under regulations to be promulgated by the Secretary of the Interior, just like other unaffiliated items.

(3) To clarify the disposition of inadvertently discovered cultural items.

The disposition of "inadvertent discoveries" of cultural items by federal agencies is not being consistently governed by NAGPRA's provisions for intentional excavations. This apparently uncontroversial clarification of congressional intent was originally suggested in a bill, S. 110, introduced by Sen. Daniel Inouye (D-Hawaii). This section of the amendment appears to be in the interests of both the scientific and Native American communities and is in complete conformance with NAGPRA's original intent.

H.R. 2893 will stimulate debate because it seeks a new balance between legitimate Native American concerns in human remains and other cultural items and legitimate scientific and public interests in those remains and items. It will bring to light new and important information about the prehistory and history of the United States, but will sometimes delay repatriation or offend native groups opposed to study. The government affairs page of SAA's web site (http://www.saa.org) contains the full text of H.R. 2893, the text of NAGPRA as it would be modified by the bill, and current SAA analysis of the legislation.

Based on SAA's current analysis, the Board of Directors supports this legislation but is actively seeking to identify problems the bill might create and to explore and understand objections to the bill. If necessary, SAA will seek appropriate changes. Given the significance of H.R. 2893 for the discipline of archaeology, we hope that you will take the time to review these proposed changes to NAGPRA and communicate your opinions to your representatives in Congress. You should explain how the amendment would affect your state and, if you support it, should ask your representative directly to become a cosponsor. Questions, comments, and concerns about SAA's position on the bill should be directed to Bill Lovis, chair of the SAA Committee on Repatriation (lovis@pilot.msu.edu).

William Lovis is chair, SAA Committee on Repatriation, Keith Kintigh is a member of the Committee on Repatriation, and Donald Craib is manager, government affairs, and counsel for SAA.
In Brief...

Tobi Brimsek

The goal of this month's column is to start off the new year with a twist. Jon Driver, our annual meeting program chair for Seattle, and the staff have shared some insights to give you a different perspective of SAA--one "by the numbers" to reveal some interesting facts.

About the 63rd Annual Meeting in Seattle:

- There will be 181 symposia, general sessions, and forums.
- Excluding discussants' comments, there will be 1,675 formal presentations.
- During an average day, we will use 57,000 square feet of the Washington State Convention and Trade Center for symposia, general sessions, and forums, while, at the same time, we will use approximately 24,000 more square feet of meeting space at the Sheraton Seattle (and this does not include poster or exhibit hall space!).
- During an average day, 3,200 seats will be available, excluding the large session room which accommodates 1,500 more seats.
- From spring 1997 through the end of the year, staff collectively spent more than 1,000 hours planning and implementing meeting and pre-meeting activities for Seattle.
- As of this writing, the exhibit hall will present 46 exhibitors in 65 booths.

We expect a record-breaker in Seattle in every way. Just some quick reminders:

- The deadline for advance registration is February 23, 1998.
- The deadline for housing forms is February 25, 1998.

Other SAA programs tell an interesting story through numbers as well...

- In 1997, 484 new members joined SAA.
- Staff made changes to more 4,000 member records in 1997--66% of all member records
- In the last six months, approximately 15% of the membership has reported email addresses, most in response to our "Get Connected" campaign. If you haven't shared your email address with us yet, please do! You can email it to membership@saa.org. Currently we have email addresses for 58.3% of the membership. We look forward to your "getting connected."
- Thank you for the attentive response to dues notices--approximately one-third of our members renewed on the first notice.
- The public education program has distributed 24,125 copies of Reaching Kids through Archaeology since its spring 1996 printing.
Also in the same time period, more than 14,600 copies of *Archaeology and You* were distributed by SAA.

In 1997, 52% of the membership subscribed to *Archaeology and Public Education*.

In 1997, SAA government affairs staff visited 287 offices on Capitol Hill.

The manager of government affairs spent more than 500 hours on Capitol Hill in the past year.

In 1997, 776 finished pages of *American Antiquity* were produced, the editors having edited 88,200 words.

In 1997, 400 finished pages of *Latin American Antiquity* were produced, the editors having edited 45,320 words.

In the past 10 months, sectors of the [SAA web site](http://www.saa.org) have been accessed 360,390 times.

The daily average of accesses is 1,377.

The most frequently accessed sector of the web is the main page, followed by "About Archaeology" and then the publications section.

*Tobi Brimsek is executive director of the Society for American Archaeology.*
Results of the Recent SAA Balloting  

Lynne Sebastian

In the recent referendum on ROPA and on changes to the SAA bylaws, 5,829 ballots were mailed and 1,640 (28%) completed ballots were returned. Of the 1,640 returned ballots, 34 were invalid, leaving a total of 1,606 valid ballots to be counted.

All ballot questions passed. A brief description of each ballot question and the proportion of votes cast in favor of each follows:

- The proposal to create a Register of Professional Archaeologists (ROPA)--75%

Changes in the bylaws of the SAA:

- Change name of the society's governing body to Board of Directors--95%
- Incorporate a 10th objective on ethics into the purposes of the society--96%
- Expand the definition of associate member to specifically include educators--91%
- Change grace period for late payment of dues from 60 to 30 days--64%
- Remove the requirement that the editor of American Antiquity serve ex-officio on the Board of Directors--92%
- Delete the paragraph that set up the original board member rotation--94%
- Clarify the definition of quorum for the Board of Directors meetings--97%
- Provide for the board to use electronic media to vote on routine issues between regular board meetings--95%
- Remove the requirement that candidates for president-elect must have served previously on the Board of Directors--93%
- Change definition of quorum for the annual business meeting--94%
- Eliminate the "ad hoc" category for SAA committees--95%
- Allow the president to appoint committee members (but not chairs) without board approval--90%
- Generalize the language about the schedule for committee reports--96%
- Change the term for the chair of the Presidents Advisory Board--98%
- Delete articles XIV-XV as being no longer needed or redundant with other provisions--96%.

Lynne Sebastian is state historic preservation officer of New Mexico and is the secretary of SAA.
Society for American Archaeology—

Balance Sheet

June 30, 1997  1996

(Restated—Note F)

Assets

Current Assets
Cash and cash equivalents—Note D $ 474,436  $ 469,215
Accounts receivable 5,761  28,904
Prepaid expenses and deposits 9,995  9,995
Inventory 10,274  27,451
  Total current assets 406,899  226,911

U.S. Treasury Notes—Note C 393,272  389,304

Property and Equipment
Equipment 95,613  27,378
Furniture and fixtures 54,084  54,084
Computer software 49,406  49,406
  Less accumulated depreciation 114,210  79,116
  Net 25,642  65,288

$ 875,794  $ 718,008

Liabilities and Net Assets

Current Liabilities
Accounts payable and accrued expense $ 12,548  $ 44,957
Deferred revenue:
  Membership dues, current portion 27,194  212,202
  Subscriptions 11,105  91,866
  Other 26,811  2,946
  Total current liabilities 401,198  357,026

Deferred Membership Dues, net of current portion 29,106  29,294

Net Assets
  Unrestricted 20,589  (5,970)
  Board-designated fund 62,098  68,600
  Temporarily restricted 164,181  115,298
  Permanently restricted 17,581  17,581
  Total 445,608  337,457

Commitment—Note D

$ 875,794  $ 718,008

Change: 1996 amounts have been redacted for comparative purposes.

M.R.: The notes referred to are not included for the purpose of this summary data. If you have any questions, please contact the executive director, Society for American Archaeology.

Audited 1997 Financial Statement

Statements of Activities

Year Ended June 30, 1997  Year Ended June 30, 1996

(Restated—Note F)

Revenues, Costs, and Other Support

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Certain 1996 amounts have been reclassified for comparative purposes.
Working Together

White Mountain Apache Heritage Program Operations and Challenges

John R. Welch

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- Preface
- Heritage Program Missions and Initiatives
- Repatriation, Cultural Documentation, and Education
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- Conclusions: The Future of the White Mountain Apache Heritage

This is the second of a two-part series describing the steps taken by the White Mountain Apache tribe of the eastern Arizona uplands to regain control over and resume responsibility for its culture and history. Part I [SAA Bulletin 15(5):26-28] reviewed elements of the Apache philosophy used to guide the heritage program and provided a brief history of the program's establishment. Fundamental to the tribe's approach is the definition of "heritage resources" to include all cultural, historical, archaeological, and paleontological sites and objects, as well as the intangible cultural and oral traditions that derive from these resources and endow them with significance (Figure 1). White Mountain Apaches now concern themselves with all heritage resources within the boundaries of their Fort Apache Indian Reservation and also seek participation in decisions and policies having potential effects on Apache heritage resources located beyond the reservation's borders. Part II summarizes current heritage program activities and discusses issues confronted by a professional archaeologist employed by a federal agency while serving in an advisory capacity as a tribal official.

Figure 1: Sign integrating educational and warning messages.
Heritage Program Missions and Initiatives

The White Mountain Apache tribe's heritage program is charged with the protection, management, and culturally appropriate use of all places, things, and traditions deriving their significance from White Mountain Apache culture and history. What distinguishes the White Mountain Apache this program from most other tribes' cultural resource management initiatives is the Apache interest in the conservative use of heritage resources to create healthier communities, attract visitors, and foster employment. In particular, the tribal members views tightly managed heritage tourism as an important aspect of their efforts to create alternatives to resource extraction industries.

By uniting community and economic development with cultural, linguistic, and historic preservation, the White Mountain Apache tribe seeks to harness its sometimes sad, often misunderstood, and always fascinating past in pursuit of an exciting future. The heritage program today--although still a work in progress--embraces four overlapping functional areas: (1) repatriation and cultural education and documentation; (2) collections management; (3) the Fort Apache Historical Park; and (4) historic preservation. Activities in each of these areas involve important partnerships and collaborations with various White Mountain Apache tribal offices, other tribes, state and federal agencies, and several universities.

Repatriation, Cultural Documentation, and Education

A Cultural Advisory Group (CAG) of elders and Apache cultural specialists provides heritage program oversight and contributes, as needed, the often sensitive information required to identify and protect Apache heritage resources. Ramon Riley coordinates CAG activities, serves as a member of the tribe's Project and Plan Environmental Review Board, and manages repatriation, cultural education, ethnohistorical research, and traditional lifeways documentation initiatives. CAG members are encouraged to act as liaisons between the heritage program and the communities of cultural practitioners present on and off White Mountain Apache lands. Mutually beneficial relations between program staff and heritage resource stakeholders (cultural practitioners, educators, elders, youth) are seen as critical to long-term program success (Figure 2).

Figure 2: Members of the White Mountain Apache Cultural Advisory Group conduct a field review of the Silver Creek Archaeological Research Project.

Repatriation is CAG's first priority, maintaining consistently (and backed by the Native American Graves Protection and Repatriation Act (NAGPRA) that most White Mountain Apache cultural items (i.e., human remains, funerary objects, sacred objects, cultural patrimony) stored in off-reservation repositories should be expeditiously returned to their original resting places or another safe and sacred place under tribal jurisdiction. This and other guiding principles, together with the cooperation essential for a nation divided into many tribes,
were established through the Inter-Apache Agreement on Repatriation and the Protection of Apache Cultures (signed by the nine Apache tribes in 1995).

Also in 1995 the five Arizona tribes with Apache affiliations (Camp Verde, Payson Tonto, White Mountain, San Carlos, and Fort McDowell) began collaboration under the terms of a National Park Service (NPS) NAGPRA grant. A working group of elders and cultural experts has been assembled and dispatched to more than a dozen museums to participate in consultations and to initiate repatriation claims. Some of these claims will be filed jointly by multiple Apache tribes. It bears mentioning that attitudes adopted by museum personnel regarding the Apache delegations have varied significantly. Many museum professionals see NAGPRA as an opportunity and have welcomed tribal members as prospective colleagues with unique knowledge about collections under their care. Others seem threatened by NAGPRA's recognition of tribal rights and limit the interaction with tribal representatives to that required by the statute.

White Mountain Apache research and documentation interests center on ethnography and ethnohistory. Archaeological work is generally discouraged except in support of necessary construction projects. Substantial ethnographic research expertise is being developed through programs to document traditional cultural properties, land use, and oral traditions. Because critical data and irreplaceable wisdom are lost with the passing of tribal elders, current work focusses on the collection of stories, place names, and native historical viewpoints. Supported by a grant from the Lila Wallace-Readers Digest Fund, the heritage program has expanded and duplicated a unique library of audio and videotapes of Apache craft, lifeway, and oral traditions. Beverly Malone, the heritage program language specialist, has used expertise and equipment acquired through the grant-funded work to assist with an ethnographical survey of the areas threatened by proposed copper mines located within White Mountain Apache aboriginal territory. Proactively mandated by the Tonto National Forest, funded by less enthusiastic mine proponents, and coordinated by Payson Tonto Tribal Historian Vincent Randall, these surveys employ Apache historians and land-use experts to identify National Register-eligible localities and to evaluate the significance of the lands to be impacted by the mine. For the first time, those with the knowledge and wisdom of the Apache past are being given an appropriate opportunity to share this knowledge to preserve aspects of their heritage. For Apaches, whose ancient material remains are scarce and elusive, this oral history-based approach is a welcome complement to the archaeologically focused Section 106 process that prevails in most compliance efforts. Plans are underway for Arizona's Apache tribes to collaborate in developing a Western Apache Atlas to serve as a teaching tool and as a basis for consultations with federal and state agencies and repositories.

Collections Management

The White Mountain Apache tribe seeks to acquire and preserve objects, photographs, and documents relating to Apache history and culture. The reservation community's rapidly growing interest and involvement in heritage resource issues provided the justification for a proposal to rehabilitate a vacant building at Fort Apache for use as a Cultural Education and Museum Facility. With support from the U. S. Department of Housing and Urban Development, the new facility is scheduled to open summer 1997. In addition to classroom, crafts production, and exhibit space, the new facility will provide secure storage for the tribe's growing collections. Nancy Mahaney, the tribe's museum director, is responsible for the maintenance of all collections, exhibit development, and initiating long-range planning for the construction of a second facility that will facilitate repatriation and loans of Apache collections currently stored in off-reservation museums.

This new facility will also house the tribe's Archives and Research Library. With a grant from the U. S. Department of Education, this portion of the tribe's collections has undergone rapid growth under the direction of Anna Goseyun. The photographs and documents now housed in the Archives and Research Library have already been employed in genealogy projects, the Fort Apache rehabilitation effort, and the identification and documentation of heritage sites threatened by logging, road construction, and other activities. The current plan is to seek tribal council approval of programmatic funding by proposing an expansion of the Archives' mission to include long-term management of the tribe's administrative records.
Fort Apache Historical Park

In accord with the master plan for the Fort Apache Historical Park, the heritage program seeks to exploit the fort's name recognition and iconic cultural status in order to celebrate long-neglected Apache perspectives on Apache culture and history. Existing fort buildings are being rehabilitated to serve as the tribe's Office of Tourism, an elder's gathering and feeding center, and staff housing for the heritage program and the Theodore Roosevelt School, which shares the fort compound. The Fort Apache Historical Park also includes the former military cemetery, the disturbed ceremonial Geronimo's Cave, a historic church in Cibecue, and Kinishba Ruins National Historic Landmark, a partially reconstructed 14th-century pueblo that is falling into ruin for a second time. The church is slated to serve as a community center and a heritage program office for the west side of the reservation, while the cave, the cemetery, Kinishba, and other archaeological sites are being managed for expanded use as tourist destinations (Figure 3).

Figure 3: Kinishba, a partially restored (and re-collapsing) ancestral pueblo village under the protection of the White Mountain Apache Heritage Program.

Underlying these diverse initiatives is the tribe's willingness to take the lead in preserving non-Apache heritage sites, so long as other partners come forward, and local economic development opportunities are enhanced. At Fort Apache, however, the tribe's obvious partner, the Department of the Interior, which retains full responsibility for the National Register-listed historic district pursuant to a 1960 statute and the National Historic Preservation Act (NHPA), has stood by idly while the tribe struggles to save a unique, badly neglected resource of national significance. Departmental intransigence is obliging the tribe to seek a judicial solution. In the meantime, the tribe has initiated a project that will provide high-quality documentation of the current status of the Fort Apache buildings as well as detailed rehabilitation plans for at least five of the most acutely endangered and potentially useful structures. The tribe has also combined forces with the local Bureau of Indian Affairs (BIA) agency superintendent to oblige the regional BIA office to dedicate nearly $1.2 million to develop remedies to long-standing health and safety deficiencies at the Theodore Roosevelt School.

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Historic Preservation Office

As the White Mountain Apache historic preservation officer (WMAHPO), I have primary responsibility for three heritage program elements: assumption of state historic preservation officer (SHPO) functions; heritage site inventory and protection; and non-NAGPRA consultations concerning projects proposed within White Mountain Apache aboriginal territory. For the White Mountain Apache tribe, the assumption of SHPO responsibilities is a means for advancing sovereign rights and increasing control of the tribe's heritage resources as well as the processes used to plan and implement land modification projects on the Fort Apache Indian Reservation. The 1992 NHPA amendments that gave tribes the authority to assume SHPO responsibilities also
spawned NPS guidelines designed to assist tribes in becoming full partners in the national historic preservation program and in managing places of historic and cultural significance located on their lands. While tribal historic preservation officers (HPOs) are encouraged to embrace professional standards and guidelines, the amendments also "ensure that tribal values are taken into account to the extent feasible." This means that tribes may select which SHPO functions to assume (and which to avoid), may tailor their programs to reflect tribal needs and preferences, and may involve other tribes and institutions as program partners.

The White Mountain Apache tribe has taken over all duties involving heritage site inventory, education, and planning for the Fort Apache Indian Reservation. The assumption of Section 106 review duties is delayed pending the enactment of the tribe's heritage preservation ordinance and full implementation of the tribe's environmental review process. The tribe's CAG also serves as the historic preservation review board required by NHPA. The tribe continues to seek grant and technical assistance from the Arizona SHPO and NPS, especially to aid with the preservation and rehabilitation of standing structures.

Currently the most important impediment to WMAHPO progress is financial: there is no programmatic funding for tribal offices. To remedy the problem, the tribe has joined other preservation partners in encouraging Congress to support tribal HPOs on a par with SHPOs through an allocation from the Historic Preservation Fund. This fund, maintained with proceeds from offshore mineral leases, supports SHPO operations and other elements of the national historic preservation program. The long-range objective is to develop, as a part of the heritage program, a HPO that draws much of its funding from outside sources while maintaining commitments both to White Mountain Apache heritage site preservation and to the operational and ethical principles that guide professional archaeology and historic preservation.

The establishment and administration of the tribe's Heritage Site Inventory System (FAIRSITE) has entailed significant challenges in this regard. FAIRSITE consists of two primary components. The first, maintained in a high-security, fire-resistant environment, is a heritage site atlas (quadrangle maps showing archaeological sites, sacred places, caves, and fossil localities) and paper files for each documented heritage site and archaeological field inventory project area located on or adjacent to the Fort Apache Indian Reservation. The second component is an ArcInfo-based GIS and database that contains nearly half of the more than 2,000 documented heritage sites.

Although FAIRSITE is currently operational--incorporating far more information pertaining to the reservation than that contained in all off-reservation site files combined--a conflict exists between the importance of providing for the long-term security and accessibility of archaeological data and White Mountain Apache interests in enhancing and preserving sovereignty and resource control. Tribal officials are dismayed by looting and other forms of trespass involving heritage resources but have not yet been persuaded of the benefits supposedly derived from archaeological research and data sharing with non-tribal researchers (well-documented, pre-reservation Apache sites are few and far between). As a result, the tribe is reluctant to release FAIRSITE data except to assist with tribally endorsed plans entailing land modifications. At present the tribe is asserting its right to control access to those portions of Arizona's statewide database (AZSITE) pertaining to the Fort Apache Reservation. Visitation to heritage sites outside the Fort Apache Historical Park requires a special permit issued by WMAHPO.

Tribal interests in this case are at odds with my professional inclination to share data with qualified researchers and land managers, but at least three factors outweigh this inclination: (1) tribal willingness to ensure FAIRSITE data compatibility with AZSITE and to allow free use of data bearing on broadly regional or interregional planning and research initiatives; (2) official tribal assumption of SHPO inventory responsibilities for the reservation; and (3) current FAIRSITE availability as the most automated and comprehensive means for storing and retrieving information concerning archaeological surveys and heritage sites on the reservation, including hundreds of sites not present in AZSITE. In sum, Congress has, via the 1992 NHPA amendments, invited the tribe to manage its heritage sites as it sees fit. The tribe has accepted this invitation, and researchers are now obliged to recognize the tribe's sovereign right and responsibility to control access on the basis of White Mountain Apache, rather than academic-, national-, or state of Arizona-derived values. Tribal leaders are open to suggestions and proposals from prospective partners, but until these decision makers are shown how heritage resources research can contribute to social, educational, management, and economic objectives for White Mountain Apache people and land, researcher and data access privileges will be tightly controlled.
For projects for which Section 106 compliance is needed, the White Mountain Apache and other tribes with heritage management programs have the opportunity to use their own interpretations of what constitutes a historic property, thus enhancing tribal control over the management of heritage resources. For government-sponsored projects or activities beyond reservation boundaries, but within the enormous aboriginal territory in which White Mountain Apache ancestors lived, migrated, farmed, hunted, collected plants and minerals, prayed, and were interred, heritage resource management issues are more complicated. In response to letters announcing projects that threaten Apache landscapes or heritage sites, the tribe's cultural resources director, environmental planner, attorney, and I work together with project proponents to seek resource protection and appropriate treatment. For larger and more destructive projects, the tribe generally holds that the NHPA compliance process should employ tribal members who are uniquely qualified to assist the agency with historic property identification, National Register eligibility determination, and significance assessment. Federal agencies, project proponents, and their contractors are gradually recognizing the legal, informational, and political advantages of this approach. Even as mutual collaboration in the Section 106 process continues, however, for the foreseeable future (that is, with the new NHPA regulations on the horizon) the situation will involve confusion similar to that following initial NHPA enactment, when "survey," "testing," and "data recovery" remained ill-defined.

Conclusions: the Future of the White Mountain Apache Heritage

Apaches have begun to reject publicly the powerful dichotomy between the highly marketable and wildly exaggerated caricature of their forebears as the fierce military masters of the frontier southwest as opposed to their actual identity as a diverse group of foraging-farming peoples who briefly impeded Manifest Destiny. Although vestiges of a victim mentality remain, the Apache knack for creating opportunity in diverse and challenging circumstances has prevailed in heritage program evolution. Instead of choosing between the former stereotype as a means of attracting tourists and creating jobs, or the latter to lay the foundations for cultural education, historical rectification, and community development, the White Mountain Apache tribe has embraced both. Apaches have decided to bring their past with them into the future. This, I think, is good news for all, the possible exception being non-Apaches who assume their notions about Apache history and culture take precedence.

Archaeology, historic preservation, and public museums will continue to adjust as tribes assert their values, beliefs, and rights. Tribes' holistic views concerning the tangibles and intangibles that non-Indians often distinguish as archaeological sites, historic properties, cultural resources, traditional cultural properties, and intellectual property may be seen as a major source of far-reaching change in archaeology and cultural resources management in the United States. Taking cues from NAGPRA, tribes are likely to advance the position that American Indian heritage resources, regardless of current ownership or control, should be protected and managed in accord with American Indian values, beliefs, and traditions.

By expanding their participation in government, museum, and research projects and policies, the White Mountain Apache and other tribes are obliging important reexaminations of roles, values, and assumptions involving the past. Indian tribes may be the last of the four principal partners to join the national historic preservation program, but their participation is likely to have the greatest single impact since the program's 1966 inception. The realization that Native Americans--as intellectually potent, politically astute, and increasingly organized groups endowed with substantial rights and privileges in the United States--have divergent, though equally valid, views concerning the goals and implementation of the national program, is inexorably infiltrating even the most remote and intransigent corners of academia and agency bureaucracy.

My opinion is that archaeologists need not abandon their discipline, much less their worldview, to learn from or establish mutual respect for and trusting relationships with American Indian people or tribes. In fact, from my anthropological experience on three continents, most indigenous people respond negatively to "wanna-be-ism" and other forms of emulation. The dozen or so Native American tribes I have worked with during the last five years share deep concerns in educating their youth, respecting their elders, and using the past and its legacies to
assist them in charting a better future. I see in these positions ample common ground for building enduring and mutually beneficial relationships between archaeologists and American Indians.

*John R. Welch serves as the historic preservation officer for the White Mountain Apache tribe and archaeologist for the Fort Apache Agency, Bureau of Indian Affairs.*
Report from Seattle

Sarah Campbell

To present Seattle, my goal was to do a systematic survey. My pedestrian transects would be north and south along First, Second, etc., with perpendicular transects along cross streets. In addition to a typical restaurant list, I envisioned presenting the data as a chloropleth map showing the density of (1) coffee shops suitable for grabbing a continental-style breakfast, (2) establishments with large selections of microbrews on tap, and (3) restaurants that smelled really good at dinner time. Rather than start at the convention center, I set out from Belltown a few blocks south because it offers a greater variety of restaurants than the main business center around the convention center (although not necessarily more coffee). I planned to work my way to the convention center but changed my tactics once I got into the field.

I had already noted Mama's Mexican Cafe, a long-time favorite, next to the Noodle Ranch (no cowboys but good pan-Asian food), when I was sidetracked by an art gallery with colorful pottery and wood carvings that borrowed motifs and shapes from prehistoric art traditions around the world. I chatted with the artist, who gave me tips on eating establishments that were quick, cheap, and tasty and also handed me a map of Belltown with the restaurants already listed. When I said I was an archaeologist, he told me that he had visited the excavation at the Ozette site years ago. He got to watch the removal of the inlaid whale fin (frequently depicted in archaeological texts) from the ground. When I left he was muttering to himself about getting out his slides. I plan to revisit and see where his muse takes him next.

I shouldn't have been surprised by the second coincidence, but I was. Just last week, before a former student passed through on her way to go sports fishing in Alaska, I had been thinking about the long history of Seattle as a provisioning and jumping off point for Alaska. But still I was surprised that my second random conversation in Belltown netted an Alaskan archaeology connection. I was the only customer in The Corner Bar, being ahead of the Saturday night dinner crowd, so there was plenty of time to chat with the bartender. I told him I was doing advance footwork on eating establishments for a convention, and he extolled the virtues of the associate Poor Italian Cafe and gave me a plate of homemade gnocchi, gratis. (It was delicious.) But the real payoff came when I told him that this was an archaeology convention, and he described his brush with archaeology while working as an EMT on the Exxon Valdez oil spill cleanup in Alaska. I had heard stories from friends on the archaeology side, about living on boats, surveying the shoreline, and marking buffer zones around cultural sites so that they would not be subjected to the erosive effect of the hydraulic washing. I was curious to hear how he perceived this effort that was in some ways a subplot to the environmental issues--and heartened to find that far from seeing it as a major impediment, he was very knowledgeable about the process and sympathetic to the cause. He hadn't missed the irony that this major environmental disaster has resulted in the opportunity to systematically survey new areas and record hundreds of new sites.

So what did I learn from this survey? I still have to complete the fieldwork in the other direction, which encompasses the Seattle Art Museum, Pike Place Market, the aquarium, Pioneer Square, and the International District. I can't effectively sample microbrew availability without several companions and a designated driver for the trip back to Bellingham. You'll see the final restaurant guide in your convention packet. But I can unequivocally say that downtown Seattle is exciting and accessible. Here are a few preliminary findings.

Coffee is ubiquitous. Due to the Northwesterner's coffee anxiety, coffee shops are spaced to ensure that no one downtown is more than two minutes from good coffee (may vary depending on elevator speed in some buildings). You can eat nouvelle or ethnic cuisine at any number of places with great atmosphere.
If you are from the Lower 48, you probably won't be working a visit to Alaska into your itinerary. But you can get the feel of jumping off for that far northern state by visiting the headquarters of the Gold Rush National Park (a storefront in Seattle, the remainder of the real estate up yonder). Or even provision yourself for going--there are numerous stores selling outdoor gear, including Seattle's own REI (up the hill) and Eddie Bauer. I especially liked seeing the Patagonia store, with big window-front displays in 1990s style, next to the camouflage drab Army/Navy Surplus store with the big sign out front, "Alaskan Outfitters." Or you could follow an even older tradition and get a colorful woolen blanket at the Pendleton store.

And you are never far from the waterfront. From my spot in the bar, I had a narrow view, framed by buildings, down toward the water. I couldn't see the water itself, but I watched a fully loaded container ship float by, in surrealistic slices that were taller than they were wide. Typical of harbor towns, there is a seamy strip of "bawdy houses" along First Avenue parallel to the water, and at the north end you might spot an adult movie theater in between two trendy restaurants. You can walk a few blocks and take a short ferry ride to Bainbridge Island. A ride across the protected waters of Puget Sound on a huge stable ferry shared with commuters is fairly tame, but it still smells good and is simultaneously relaxing and invigorating to be out on deck. Or if you haven't been around working locks before, it is worth taking the bus to Ballard and visiting the Hiram S. Chittenden Locks, province of the U.S. Army Corps of Engineers, Seattle District. The highlight for me is watching boats of every description tie up and the locks slowly fill up and empty out, but there is also an arboretum, a fish ladder, and a small visitors center with an exhibit on the history of the locks. Also worth visiting are the Ballard docks, home to a major fishing fleet that participates in various fisheries (salmon, halibut, cod, crab, shrimp, among other varieties) throughout the Pacific Northwest and Alaska.

And one other thing I learned--archaeology touches a lot more people than I usually dare to hope.

Sarah Campbell is cochair of the Local Arrangements Committee for the 1998 SAA annual meeting in Seattle.
Student Affairs

Making the Most of Your SAA Meeting Experience
(or, How Note to Be a Wallflower in Seattle)

Jane Eva Baxter and Gordon F. M. Rakita

The annual meeting of the Society for American Archaeology (SAA) is organized to give members a chance to meet one another, present their research, and discuss common interests. Students make up approximately 30 percent of the society's membership and therefore play an integral role in the success of the meeting. The meeting offers students much more than an opportunity to break records for cramming people into a hotel room designed for four, or to experiment with the local microbrews of a new city. It also gives students a chance to further their professional development and research goals. This year, make the most of the time and money you spend attending the SAA meeting in Seattle!

We have compiled suggestions made by established professionals in academia and cultural resource management as well as advanced graduate students on how to make the annual meeting a fun and rewarding experience. There are preparations you can make before the meetings, tips for behavior while at the meeting, and critical avenues for a post-meeting follow-up that will enhance both your professionalism and your meeting experience. While some suggestions may seem obvious or superfluous, your appearance and preparedness have much to do with the reception you will receive, and, consequently, the quality of your experience!

Be a Colleague!

While students receive a reduced SAA membership rate, that is where the distinction between student and full membership ends. Aside from this, SAA treats all members alike. We have an obligation to act accordingly. The meetings provide an opportunity to demonstrate your ability to act not as a student, but as a colleague. Remember, prospective peer reviewers, search committee members, and research collaborators abound at the meetings. Take notice: you represent your home institution and you may be making impressions that will follow you throughout your career. Maintaining a professional demeanor is essential.

Archaeologists by and large are a flamboyant, rambunctious, and eccentric lot, and there is no reason why students cannot or should not share those traits. However, you are more likely to be treated as a colleague if you behave like one. Most professionals enjoy and seek contact with students who present themselves in a mature, responsible manner. They realize that someday you may be reviewing their article, book, or grant proposal, or that you may hold the answer to an interesting problem, or have a fresh perspective on a troublesome theoretical issue. Your appropriate behavior will inspire confidence in your professional abilities.

Before You Go--
Image Isn't Everything, But It Is Important!

Does your appearance "fit in," or do you feel underdressed? Do you have a briefcase to hold your materials, or just a disheveled stack of papers under your arm? Is your paper properly timed and rehearsed, or are your slides upside down and your prose convoluted? Do you have a business card to hand out for paper requests, or are you
tearing off pieces of the program cover to jot down your address illegibly? While these details have little to do with your intellectual potential and insights, they do send important messages about your professional abilities.

Although tenured faculty and reputable professionals have the luxury of dressing however they please, less well-established scholars should present a more polished image. Several professionals we surveyed commented unfavorably on students wearing "field clothes" or jeans and T-shirts where more "formal" attire would have been appropriate. Long days do demand comfortable attire, but select clothing appropriate to each professional venue.

Take pride in yourself and your work. Invest time in polishing your papers and posters for both content and style. Consult "Presenting--What an Experience" [Eden Welker, SAA Bulletin 15(1)], and "Getting Graphic: Making an Effective Poster" (Jane Baxter, SAA Bulletin 14(5)] for helpful presentation tips. Have copies of your paper available at the meeting, as well as business cards to hand out when you make a request for a paper or reference. Stores such as Kinko's and Office Depot make business cards inexpensively and probably have your university's logo in their computer. Copies of your curriculum vitae (CV) are also useful, even if you are not currently in the job market. Carry a briefcase or folder to hold your notebook, pens, paper copies, business cards, CVs, meeting program, and abstracts.

**Beat the Time Crunch!**

The selection of so many activities to attend in such a short time is daunting to many--we attempt to condense a year's worth of information-gathering into a few short days! There are things you can do ahead of time to alleviate the overwhelmed feeling and to beat the time crunch.

SAA distributes a preliminary program, outlining sessions, events, meetings, and receptions. Use it to schedule your time in advance. Sign up early for workshops and roundtable luncheons. Identify the days and times of sessions of potential interest and receptions you want to attend. Plan time for local excursions, either those organized by SAA or on your own. Most important, make time for yourself--having some "down time" is essential!

Once you schedule your "busy" time, identify your expected free time to arrange personal meetings. Professionals expressed a universal willingness to make time for students and suggested that students should make arrangements for their in-depth conversations with potential mentors ahead of time. Many faculty reported having all of their meal times booked well in advance--so act early.

Your pre-meeting email or phone call should convey more than "I am interested in your work." Let the person know what you are doing, specific aspects of their research that are relevant, and what you intend to discuss at the meeting. Time is a precious commodity for everyone at the annual meeting, so be sure to make your requests for time meaningful and appropriate.

**Once You Arrive**

So there you are at the convention center in a sea of name tags and unfamiliar faces. How do you go about transforming your preparations into a successful meeting?

**Relax, Smile, and Be Seen**

Huddling in the corner with your friends may feel safe, but it is hardly the way to meet new people and network. Strike out on your own and agree to meet friends later for drinks or an event.

Once you have the final program and abstracts, solidify your schedule and make sure it works. Where do you need to be when? Make note of your free times so you can readily suggest a meeting time without fumbling through programs to figure out whether you're coming or going!
Make it a priority to "case the joint" on arrival; familiarize yourself with the layout. Where are the events you are attending being held? Where are the rooms in relation to one another, and how long will it take to get from one to another? Find the message center, the exhibit hall, and centrally located restaurants and bars. Have a convenient location in mind when you set up a meeting!

Finally, be an active participant. Present your work, attend workshops, sign up for roundtable luncheons, and go to different receptions. If you have some free time, walk the exhibit halls, go see the poster sessions, or have a drink at the central bar. Be visible and create networking opportunities!

**Making Contact**

Presenting at or attending symposia may be the focus of the meeting, but these activities often take a backseat to meeting and conversing with other archaeologists. Networking plays an important role in an archaeologist's career. People who work in the same study area meet to discuss current developments, or researchers developing similar themes exchange ideas or arrange collaborative research. Learn to identify those researchers who share your interests and with whom a mutually beneficial conversation may take place. Otherwise, you will find it difficult to maintain a meaningful discussion. Don't overlook conversations with other students--after all, they will be your future colleagues!

When you arrange a meeting, choose an appropriate location and time. Presenters prefer to have the hours before and after a presentation free for preparation and/or celebration. Grabbing someone in the hallway or interfering with a grad school reunion at the bar do not constitute appropriate times to discuss state formation or foraging theories. Identify a time when all parties would be unencumbered by commitments and distractions, and agree upon a suitable location. The availability of liquid refreshments is always appealing, but the noisiest bar in the hotel is not a good choice. Suggest as an alternative a quiet restaurant, since everyone has to eat. Limit your intake of libations so as not to impair your ability to communicate effectively. Save the heavy celebrating for a more informal event.

Take advantage of connections you have already made to ease introductions to others. Faculty advisors, committee members, or fellow students can facilitate introductions and conversations. Confirm plans with your pre-meeting contacts, and follow up on any invitations to "introduce yourself" at the meeting. SAA receptions are a great place for such informal chats and introductions, as people are there to socialize and mingle.

Finally, what about the logistics of meeting a particular someone in that sea of faces and name tags? Take advantage of the hotel operator and voice mail system, or of the SAA message center, where you can leave and receive brief messages, or obtain participants' registration information. While this is more passive than hunting the hallways, it allows for greater participation in the meetings while still making arrangements and contacts.

**Keep the Ball Rolling: Follow-Up Strategies**

Just because the meetings are over and you are safely home, don't assume you have reached the end of the process. Be prompt in following up: send all promised materials, acknowledge all received materials, provide further information or commentary, and express your thanks appropriately. Perhaps you will also want to arrange another rendezvous at the 1999 meeting in Chicago!

*Jane Eva Baxter is a graduate student at the University of Michigan. Gordon F. M. Rakita is a graduate student at the University of New Mexico. Both are members of the Student Affairs Committee.*

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The Native American Scholarships Committee Silent Auction in Seattle

Joe Watkins

The Native American Scholarships Committee will hold a Silent Auction at the SAA annual meeting in Seattle to raise funds for Native American scholarships, and we need help in three important areas: (1) volunteers to help staff the booth during the hours the display is open; (2) donations of items for the auction; (3) members to bid on all of this "good stuff" in order to contribute to a worthy cause!

Some have already donated items for the auction: Gary White Deer, whose painting graced the cover of Native Americans and Archaeologists: Stepping Stones to Common Ground, has agreed to produce a new painting especially for the auction; OCR Carbon Dating, has donated a radiocarbon dating analysis; members of the committee have also contributed several items.

The Silent Auction will be conducted during the meeting at the Native American Scholarships Committee booth in the Washington State Convention and Trade Center, where you will be able to look over the items offered. Bids will be accepted from Thursday, March 26, and continue until 12:00 noon Saturday, March 28. At that time, all bids will be considered final and the winning bidders' names will be posted. You will be able to pay for and pick up your purchases from 12:00 until 3:00 pm that same day. Cash, checks, and credit cards (though discouraged) will be accepted and processed through the SAA booth.

Your participation will be fun and easy, but, most important of all, it will contribute to SAA's efforts to increase Native American involvement in archaeology.

To contribute to the Native American Scholarships Fund or to volunteer for or donate items to the Silent Auction, please contact the Native American Scholarships Committee, Society for American Archaeology, 900 Second St., N.E., #12, Washington D.C. 20002, (202) 789-9200, or email info@saa.org. You may also email Joe Watkins at jwatkins@telnet.com or Tristine Lee Smart at tristine@t.imap.itd.umich.edu.

Joe Watkins is with the Bureau of Indian Affairs in Norman, Oklahoma.
Archaeological Institute of America Offers Public Lectures

The Archaeological Institute of America (AIA) announces free public lectures on the archaeology of the Americas for winter/spring 1998. For information on AIA lectures on other topics nationwide, call the AIA programs administrator: (617) 353-8705. For more information, call the local contacts listed below.

California
May 7, 1998
Norman Hammond (Boston University), *New Light on the Ancient Maya*
Southwest Museum, Los Angeles. Call Shelby Brown (310) 312-0339.
May 8, 1998
Norman Hammond (Boston University), *New Light on the Ancient Maya*
Stanford University, Stanford. Call Nancy Delia Palmer (415) 323-6517.

Colorado
May 6, 1998
Norman Hammond (Boston University), *New Light on the Ancient Maya*
7:00 pm, Hampden Branch Library, 9755 E. Girard Ave., Littleton. Call Marie Gingras (303) 985-3054.

Connecticut
February 26, 1998
Stephen Lekson (University of Colorado), *Chaco Canyon, Aztec Ruins and Paquime: Political History of the Ancient Southwest, A.D. 900-1500*
4:30 pm, Yale University, Old Art Gallery, 56 High St., New Haven. Call Madeline Fitzgerald (203) 436-2831.

Georgia
April 13, 1998
Kenneth G. Hirth (Pennsylvania State University), *The Search for Aztec Ancestors: Investigations at Xochicalco, Mexico*
4:30 pm, University of Georgia, Baldwin Hall, Athens. Call Margretta Eagon (706) 543-8187.
April 14, 1998
Kenneth G. Hirth (Pennsylvania State University), *The Search for Aztec Ancestors: Investigations at Xochicalco, Mexico*
7:30 pm, Emory University, Atlanta. Call Ann Rhea (404) 237-6546.

Florida
April 16, 1998
Kenneth G. Hirth (Pennsylvania State University), *The Search for Aztec Ancestors: Investigations at Xochicalco, Mexico*
8:00 pm, Broward Community College, Bldg. 12, Rm. 124, Central Campus, Davie. Call Sheila Soltis (954) 720-2774.
April 17, 1998
Kenneth G. Hirth (Pennsylvania State University), *The Search for Aztec Ancestors: Investigations at Xochicalco, Mexico*
7:00 pm, Orlando Museum of Art Auditorium, Orlando. Call Jim Bullard (407) 896-9939.

Ohio
February 24, 1998
Stephen Lekson (University of Colorado), *Chaco Canyon, Aztec Ruins and Paquime: Political History of the
Ancient Southwest, A.D. 900-1500
8:00 pm, Oberlin College, Oberlin. Call Susan Kane (216) 774-3681.

Pennsylvania
February 25, 1998
Stephen Lekson (University of Colorado), Chaco: The First Great Southwestern Center
8:00 pm, Pennsylvania State University, 101 Kern Bldg., University Park. Call Wilma Stern (814) 865-1506.
The 63rd Annual Meeting is Just Around the Corner

By the time you read this you may already have in hand the preliminary program for the Seattle meeting, which mailed in late December. Nevertheless, here are some highlights:

- **Opening Session:** "Pacific Northwest Archaeology in the 1990s: A Regional Overview" is the topic. As always, this officially opens the meeting on Wednesday night.

- **Plenary Session:** You've been seeing a lot about global warming lately, and that subject figures in this session as well. It deals with the vital role archaeology plays in understanding the long-term consequence of human systems in ecosystem development modification.

- **Public Session:** For the first time the public session moves out of the general meeting area. This year the session finds a museum venue--at the Museum of Flight--and covers a topic sure to please a public audience, as well as archaeologists of many ilks: underwater archaeology. The theme is "What Lies beyond the Shore? Underwater Archaeology of Prehistoric and World War II Sites" and features speakers from the National Park Service and Florida State University.

- **COSWA Roundtable Breakfast:** COSWA for the first time is planning a continental breakfast instead of the traditional luncheon so you can squeeze even more events into your schedule.

- **Be sure to stop by the SAA Exhibit Hall** where, among the more than 60 booths, you'll find the Silent Auction sponsored by the Native American Scholarships Committee.

- **Thematic Roundtable Luncheons:** Two luncheons (Thursday and Friday) are planned, and, thanks to our generous sponsors, the cost of these has been reduced to $7.10 per lunch.

SAA thanks the following for their generous support: American University, Department of Anthropology; Archaeology Wing Faculty, Harvard University; Department of Anthropology, Michigan State University; Department of Anthropology, Penn State University; Department of Anthropology, University of Arizona; Department of Anthropology, University of Oregon; Department of Anthropology, University of South Carolina; Department of Anthropology and Sociology, University of British Columbia; Foundation for the Advancement of Mesoamerican Studies, Inc. (FAMSI); Gray & Pape, Inc.; National Park Service; School of American Research, Santa Fe, New Mexico; Simon Fraser University, Department of Archaeology; Southeast Archeological Center, National Park Service; University of Toronto, Department of Anthropology; University of Utah Press; University of Washington, Anthropology Department; Washington State University, Department of Anthropology; and Washington University (St. Louis).

This is just a sampling of what lies ahead. Do plan to register early to beat that February 23, 1998, deadline for early registration!
From the Public Education Committee--

What's Happening in Seattle
Dorothy Krass and Teresa L. Hoffman

Education and Archaeology at the Seattle Meeting--This year's meeting in Seattle, Washington, offers many events that highlight archaeology education. For those planning ahead, the following is a brief preview of some of the sessions you will want to include in your schedule. Many are sponsored by the Public Education Committee (PEC), including two symposia, two workshops, a public session, and a poster contest. Details on dates and times are available in the preliminary program mailed in late December. The organizers identified below, as well as all PEC members, are listed (with their email addresses linked) on the SAAweb at http://www.saa.org/Organization/Committees/public_edu.html. In addition to these events, the PEC will have its annual meeting all day on Wednesday, March 25, and the Network of State and Provincial Archaeology Education Coordinators will meet on Thursday evening, March 26.

The eighth annual public session, What Lies beyond the Shore? Underwater Archaeology of Prehistoric and World War II Sites, will be held March 28 at the Museum of Flight. Larry Murphy (A Fisheye View of WW II in the Pacific Theater) and Michael K. Faught (Underwater Archaeology: The Prehistoric Sites) are the featured speakers. Organizer: Carol Griffith.

Coordinating Information, Coordinating Funding--How Can We Work Together to Educate the Public about Archaeology? This symposium features three recipients of SAA pilot grants for state archaeology education coordinators and three coordinators funded by other means who offer an assessment of what works and what we need to improve. Organizer: Dorothy Schlotthauer Krass.

Raising Public Awareness--This symposium reports on a variety of public projects, many by committee members. Organizer: S. Alan Skinner.

National Premiere of Searching for the Great Hopewell Road
James Liftin and Rebecca Hawkins

While many media present information about archaeology to the public, television offers one of the best opportunities to reach a large and diverse audience. Motivated in part by our desire to fulfill a personal public education mission, we embarked nearly two years ago on what has proved to be both an extremely challenging and rewarding journey: the production of a public television documentary about how people interpret the past. The documentary explores differences and similarities in the ways that two communities of people--archaeologists and Native Americans--examine and use the past by using a case study of the search for the remains of a possible 60-mile-long "road" built about 2,000 years ago by prehistoric Native Americans known as the Hopewell people. If the road--perhaps similar in function to the roads around Chaco or the Mayan sacbe--really existed, it would have connected two major geometric earthwork complexes in Ohio, one at Chillicothe and one at Newark; the latter is renowned for the incorporation of complex lunar alignments in its construction.

Not only has the documentary allowed us to examine a fascinating aspect of Ohio Valley archaeology, it also has provided us with a vehicle for showing the public the variety of techniques available to archaeologists and demonstrating that excavation is not archaeology's only tool. Because the Ohio Valley was arguably the birthplace of North American archaeology, the program also features some of the critical research of the 19th century. Perhaps most important for the members of the production team, this project was, from its inception, a collaborative effort with Native American leaders from tribes who once called the Ohio Valley home. What began as a seemingly simple effort to educate the lay public about archaeology evolved into a much richer and enlightening process throughout the course of the project.
Presenting Archaeology to Children: Tools and Tips. Organizer: Jeanne Moe. Presenting Archaeology to Adults: Tips for Successful Programs. Organizer: Mary Kwas. These workshops offer complementary approaches to archaeology education for children and adults.

State Archaeology Week/Month Poster Exhibition and Contest--Posters from across the United States will be on display in the Exhibit Hall beginning Thursday morning, March 26. SAA members will have the opportunity to vote for their favorite poster (the polls will close at noon on Friday, March 27). Prizes for the top three will be presented at the SAA annual business meeting later that afternoon. Organizers: Ann Valdo Howard and Dan Haas.

1998 Excellence in Public Archaeology Education Award--This award will be presented at the SAA annual business meeting to an individual who has made substantial contributions to public education. Eligible candidates include teachers, museum educators, administrators, interpreters, and others. Nominations were due December 1.

In addition to the above PEC-sponsored programs, two independent education sessions also will be available. These include a poster session (Survey, Management, and Education) and a general session (Public Archaeology and Education). The latter is a collection of volunteered papers. Of particular interest is that this is the first time that the number of volunteered papers about public archaeology and education has warranted an independent dedicated session at the annual meeting.

For more information on PEC activities, please contact Edward Friedman, Bureau of Reclamation, P.O. Box 25007, D-5300, Denver, CO 80225, (303) 236-1061 ext. 239, email efriedman@do.usbr.gov.

Dorothy Krass is with SAA, and Teresa L. Hoffman is at Archaeological Consulting Services, Tempe, Ariz.

Because of the documentary's public education mission, the SAA Public Education Committee is sponsoring the national premiere during the annual meeting in Seattle, on Thursday evening, March 26, at the Sheraton. (More details will appear in the final program.)

The documentary's coauthors, Rebecca Hawkins and James Litfin, also wish to take this opportunity to thank the producer, Thomas Law, who proposed the idea for the video and whose careful work and creative inspiration have made this project possible.

James Litfin and Rebecca Hawkins are at Northern Kentucky University and with Algonquin Consultants.
Electronic Quipus for the 21st Century: Andean Archaeology Online

John Hoopes

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- The Growth of a Cybercommunity
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By now, most of us have had some experience "surfing the Net." This Networks column is intended to provide focused, thematic reviews of digital resources for the study and teaching of archaeology. Over the next several issues, we will explore the use of the Internet for conducting research, supporting university instruction, and facilitating the dissemination of archaeological knowledge.

The amount of archaeological information on the Internet is growing exponentially. A search for "archaeology" on the web yields more than 40,000 separate documents (with about 7,000 more for "archeology" and 1,300 for arqueología), most generated in the past year or two. What is most impressive about these resources is that, of all the breakthroughs in computers that have affected archaeology, the Internet may come closest to being "appropriate technology" for this globally underfunded discipline. The hardware requirements are not beyond the means of most universities and research institutions in developing countries. A new, Internet-ready computer with a fast processor and high-speed modem now can be purchased for under $1,000, while web TV and other "network computer" equipment is available for substantially less. Good software for electronic communications and web page development can be found for free, and web-based services such as HotMail (http://www.hotmail.com) and Geocities (http://www.geocities.com) offer email and web site hosting for free to anyone in the world. Internet service providers (ISPs) are providing services over increasingly large areas of eastern Europe, Asia, Africa, and the Americas, with satellite-based service leapfrogging over the reach of traditional hard-wired connections. Public Internet kiosks are appearing across the globe, bringing the Internet and the archaeology on it within reach of a vast audience.

With this initial column, I will describe some of what is happening in Peru, home to the oldest "nets" in the Americas. Just as the Inka linked road systems spanning the Andes, scientists, academics, and enthusiastic amateurs in Peru are undertaking one of the most ambitious programs of digital networking in Latin America. This phenomenon has been intimately linked with archaeology from its inception. Peruvian archaeologists not only have provided rich content of wide interest at an early stage in the development of web resources, they also have fostered an ethic of cooperation fueled by a vision for the future that is inspired by ancient technology. In Peru, both the Internet and archaeological knowledge are seen as tools for social change. Even nonarchaeological web sites are decorated with Pre-Columbian motifs. While serious problems can arise when interpretations of the past are colored by current political agendas, postmodern critique has made it clear that such bias is impossible to avoid. A wide appreciation for studying and protecting the archaeological resources
that have been looted for centuries will ultimately benefit us all. The more people participating in the process of its interpretation, the less chance that a particular ideology will dominate the study of Peru's ancient past. Our Peruvian colleagues are doing an excellent job of demonstrating the power of the Internet for promoting archaeology as both a scientific and a social enterprise. Their work merits our attention, encouragement, and support.

The Growth of a Cybercommunity

The impact of the Internet in Peru has been particularly striking, given that the vast majority of homes are still without private telephones. The installation of major "backbones" for information routing have greatly accelerated the emergence of communications nodes. Several universities have actively supported the growth of online resources, among them the Universidad Nacional de Trujillo and the Universidad de San Marcos. The first networks in Peru were PC-based BBSs, such as Oracle and Blitz. Peru's first high-speed networks were 10 nodes in Lima connected by 64 Kbs lines in 1992-1993. Additional lines were extended in 1993 to several provinces, and in February 1994 a PANAMSAT satellite connection was established with the international NSF-sponsored backbone. At the end of 1995, the Compañía Peruana de Teléfonos (CPT) was sold to Spanish investors who created Telefónica del Perú and Infovía, a national intranet.

Internet activity was aggressively promoted by encouraging the growth of a handful of ISPs. The emergence of a national network has connected not only government offices, universities, and museums, but also thousands of individuals with access through public and private ISPs, of which the largest is the Red Científica Peruana (RCP). One of the latest developments has been the creation of Cabinas Públicas de Internet, where one can get an email address and pay by the hour for computer access. Several web sites now are bilingual in Spanish and Quechua, the first language of millions of indigenous people throughout the Andes. The web not only facilitates the study of the Precolumbian past by native peoples of Peru, but also permits them to participate globally in its interpretation and meaning. With the increasing empowerment of indigenous populations and the assignment of new meaning to archaeological remains by people who derive a portion of their own identity from ancient material remains, archaeologists must negotiate their roles with increasingly larger and more proactive audiences. The Internet forces scholarship out of its academic arena and opens our work to more intense public scrutiny.

An example of this is the online dialogue generated by a recent email message from the directors of the Abya Yala Fund and the South and Meso American Indian Rights Center (SAIIC) in Oakland, Calif. to the Precolumbian Society of Washington, D.C., in response to an email advertising a recent symposium, "Ritual Sacrifice in Ancient Peru: New Discoveries and Interpretations." The organizations' message expressed concern with the program and was forwarded to hundreds of individuals around the world. The authors noted that "Indigenous Peoples...have regained their sense of Moche identity in Peru. It is unfortunate that the Moche case (to mention one) has been appropriated by non-Indigenous scholars unaware of Moche cultural persistence, a situation that could lead to providing new interpretations with the participation of the Moche themselves." The authors requested space in the symposium for presenting indigenous views of the highly sensitive topic.

The scope and nature of this public debate would have been impossible just a few years ago. The Internet is amplifying the voice and reach of factions around the world with vested interests in just what archaeology has to say. With its growth in Latin America, the social uses of archaeology are likely to increase dramatically.

Email Discussion Lists

Hundreds of email networks now facilitate the broadcast of news, information, and networked "conversations" among users worldwide. With email-filtering features available through software like Netscape Communicator,
it is relatively easy to follow several discussion lists without getting swamped. Four lists, three based in Latin America and one in the United States, have helped to connect archaeologists interested in ancient Peru.

Red Científica Peruana (RCP), located at http://ekeko.rcp.net.pe (with additional information available via gopher://gopher.rcp.net.pe), is Peru's first public ISP, established in December 1991 as a self-sustained, nonprofit organization. It is one of the most effective organizations disseminating information about South America via the Internet. RCP states its purpose as: "to aid national development by permitting the interchange of information among all Peruvians and with other people and institutions at a regional and world level; developing a national network that belongs to its users and democratizing access to information, that is to say, assuring that all people without exception might be able to use these most valuable tools of communication and information access." RCP hosts numerous web sites (listed below) and sponsors two email "interest groups" for archaeology.

ARQUEOANDINA, a bilingual (Spanish-English) list moderated by Peruvian archaeologist Elias Mujica, has been in existence since 1995. At the end of November 1997 it had more than 470 subscribers. The list maintains a database of subscriber addresses and phone numbers. Mujica also publishes Chaski, an online bulletin of the Instituto Andino de Estudios Arqueológicos (INDEA) that is distributed electronically to ARQUEOANDINA subscribers [see SAA Bulletin 13(5)]. Chaski offers research reports, reviews of recent publications, and news about upcoming events for Andeanists. The list aims to be strictly scientific, and the moderator has little patience for "esoteric lucubrations" or fantastic speculations. To subscribe to ARQUEOANDINA and receive Chaski, send email consisting of only the command "subscribe arqueoandina" to listasrcp@rcp.net.pe.

ARQUEOLOGIA, maintained by Daniel Castillo Benites at the Universidad Nacional de Trujillo, has more than 120 subscribers. Among the benefits of subscription to the list are regular messages by Castillo and others on topics of general interest to Andeanists. These have included both news items and short essays devoted to archaeological sites, cultures, and issues in Peruvian archaeology. Castillo writes, "This list permits the grouping of national and foreign archaeologists by means of electronic mail. This basic tool anticipates a rational and optimal use of communications; securing friendships and establishing contacts among professionals and specialists with a keen sense of social awareness who are concerned that their efforts and research do not lie buried in forgotten vessels, but on the contrary, are consolidated for future projects." To subscribe to ARQUEOLOGIA, send the command "subscribe arqueologia" to listasrcp@rcp.net.pe.

ANT-ARQ and AZTLAN

In addition to the RCP lists, two others are also regular sources of information about ancient Peru. ANT-ARQ is based in Argentina. Founded by the webmasters of Noticias de Antropología y Arqueología (see below), this list currently has more than 300 subscribers from over 20 different countries. Current and archived messages can be accessed at gopher://gopher.uba.ar:70/11/ptros-locales/listas/ant_arq. To subscribe to ANT-ARQ, send the command "subscribe ant-arq" to majordomo@ccc.uba.ar.

AZTLAN, founded and moderated by Jim Cocks at the University of Kentucky, has become one of the best-known discussion lists for Precolumbian studies. Individual users can customize the topics of messages they receive using a menu of "subject" line prefixes. The "AN:" prefix, for example, designates messages about Andean archaeology. To subscribe to AZTLAN, send the command "subscribe aztlan first-name last-name" to listserv@listserv.louisville.edu.

On the Web in Peru

The Proyecto Ai Apaec (http://www.unitru.edu.pe/arg), created by Daniel Castillo at the Universidad Nacional de Trujillo (UNT) and administered through the RCP, was one of the first Peruvian sites to offer scientific content and the first to make archaeology its focus. Proyecto Ai Apaec's objectives are to provide worldwide
access to information about Peru's rich archaeological heritage, serve as a database of archaeological information, disseminate the results of specific research, and promote funding of ongoing and future projects. With animated Moche litter bearers on its home page, this site is characterized by attractive graphics and a growing number of high-content pages. Several archaeological sites, including Chan Chan, are described. Links from this site lead to other excellent UNT sites dedicated to the Huacas of the Sun and Moon in the Moche Valley and to the Proyecto El Brujo and petroglyph studies in the Chicama Valley.

*Arqueología del Peru*, created by Lizardo Tavera Vega, at [http://www.geocities.com/Athens/Acropolis/9071](http://www.geocities.com/Athens/Acropolis/9071), represents for the Central Coast region what the *Proyecto Ai Apaec* is for the North Coast. Redesigned for its anniversary in November 1997, the site offers even more valuable content. Tavera clearly understands both the power of the medium and effective site design. *Arqueología del Peru* offers detailed discussions of nine archaeological sites near Lima: Cueva, Chilca, El Sol, La Luz, Maranga, El Paraíso, Pachacamac, and Pucllana. Each includes discussions of chronology, features, and site interpretation, as well as numerous photographs, maps, and plans. Online essays cover geography, the current state of Peruvian archaeology, early ceramics, Amazonian archaeology, and a biography of archaeologist Julio C. Tello. Additional pages offer brief illustrated descriptions of the Chancay, Ichmay, and Lima cultures, "U"-shaped temple complexes, and the Inka empire. Links to these are organized by hypertext in chronological charts. Also included are three thematic bibliographies on the subjects of Amazonia and the eastern Andes, Huaca Concha, and Pachacamac; text versions of three Andean myths; a page on archaeological patrimony documenting the destruction of ruins at Matkatampu and Huaca Concha as a result of Lima's urban sprawl; and an extensive photo gallery, with images of pottery from Cajamarca, Chavin de Huantar, and the Inka fortress of Sacsahuaman.

For the South Coast region, *Nasca y sus Lineas* ([http://ekeko.rcp.net.pe/rcp/nasca](http://ekeko.rcp.net.pe/rcp/nasca)) presents extensive documentation of the enigmatic Nazca lines and is especially noteworthy for offering versions in both Spanish and Quechua. Attractively designed and packed with detailed information, the site offers descriptions, photographs, and drawings of the lines, together with a brief history of their investigation.

The bilingual *Proyecto "El Brujo"* site ([http://www.pucp.edu.pe:80/brujo](http://www.pucp.edu.pe:80/brujo)) at the Pontificia Universidad Católica del Perú (PUCP) documents the use of computers to undertake a virtual reconstruction of painted murals from the ceiling of a ceremonial precinct at the Huaca Cao Viejo pertaining to the Moche culture and dating to ca. A.D. 700. For this project, sponsored by the PUCP, IBM, and the Augusto N. Wiese Foundation, mural fragments were digitized with a flatbed scanner and manipulated electronically to assist with reconstruction. The web site explains the methodology and provides five images of reconstructed mural figures. Two web sites, each entitled *Tumbas Reales de Sipán*, provide images and descriptions of spectacular Moche burials. One, sponsored by the RCP ([http://ekeko.rcp.net.pe/SIPAN](http://ekeko.rcp.net.pe/SIPAN)), is a valuable online resource for exploring the contents of three major tombs at Sipan: the "Lord of Sipan," the "Tomb of the Priest," and the "Tomb of the Old Lord." Each is represented by a clickable, exploded image of each burial (drawn from the catalog of the exhibit "The Royal Tombs of Sipan") linked to images of many of the individual artifacts. The other ([http://www.unired.net.pe/sipan](http://www.unired.net.pe/sipan)), developed by Telefónica del Perú and launched in January 1997 in conjunction with the exhibition of the same name, offers a number of high-resolution images of the Sipan burials. It includes the first virtual reality image of a Peruvian site, a VRML reconstruction ([http://www.unired.net.pe/sipan/vrml/ruina10.wrl](http://www.unired.net.pe/sipan/vrml/ruina10.wrl)) that allows 3-D "fly-overs" of the adobe platforms that housed the tombs.

*Noticias de Antropología y Arqueología* (NAyA) ([http://www.geocities.com/Athens/Forum/7196](http://www.geocities.com/Athens/Forum/7196)) originates not in Peru but at the Universidad de Buenos Aires in Argentina. It is managed by Claudia Cáceres and Daniel Verniers with the assistance of 14 South American colleagues, and represents one of the best resources for online archaeology and anthropology in Latin America. NAyA offers monthly news reports as well as more than a dozen scholarly articles on topics ranging from early hunters in the Amazon to historical preservation in Cuzco. There are also digitized images and valuable Internet links.

Another valuable resource is the Machu Picchu page at the De Young Museum of San Francisco ([http://www.thinker.org/deyoung/exhibitions/peru/virtual/index-2.html](http://www.thinker.org/deyoung/exhibitions/peru/virtual/index-2.html)). This spectacular visual resource, developed by John Rick and Dakin Hart for the exhibition "The Spirit of Ancient Peru: Treasures from the Museo Arqueológico Rafael Larco Herrera" in summer 1997 [see also *SAA Bulletin* 15(5)], demonstrates the
potential of the web for providing panoramic virtual reality (PVR) experiences of distant sites and artifacts. The page offers a clickable map of Machu Picchu with 10 different 360deg. PVR views (displayed using a free browser plug-in from RealSpace). There are also rotatable PVR images of six vessels representative of Chavin, Moche, Wari, Chimú, Sican, and Inka styles. They will never substitute for the real thing, but they go a long way toward stimulating additional interest in the archaeology of South America.

Networking

The Internet resources that have been developed for Peruvian archaeology represent an excellent model for archaeologists throughout the Americas. They are especially impressive for the quality of the resources that are being developed in a country that is not traditionally recognized as a leader in high technology. As is true with archaeologists anywhere, our Latin American colleagues are achieving very impressive results with severely limited resources. The emergence of networks for archaeological communication worldwide is making it increasingly easier for us to learn from and help each other. The more we utilize and support one another's efforts, the more valuable these networks will become.

John Hoopes is at the University of Kansas and the new associate editor for the Networks column. He can be reached at hoopes@ukans.edu. The URL for his personal homepage is http://www.ukans.edu/~hoopes.

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Recent developments in global positioning system (GPS) technology now enable archaeologists to survey landscapes quickly and efficiently and make detailed plan maps of archaeological sites and features. Many GPS receivers can now establish positions to within 20 to 70 cm in a matter of seconds. The speed and accuracy of GPS receivers make them excellent tools for archaeologists. The results of a recent survey in Pāhinahina ahupua'a, Hawai'i Island, demonstrate the utility of this technology for archaeological research.

Global Positioning Systems

Global Positioning Systems (GPSs) is a positioning system operated by the U.S. Department of Defense (DoD) based on a constellation of 24 satellites orbiting the earth at an altitude of more than 20,000 km. The following discussion is based on several publications of Trimble Navigation, Sunnyvale, Calif., and one in particular: *Mapping Systems: General Reference*, published in 1996.

Satellites act as reference points for receivers on the ground to trilaterate their position. By measuring the travel time of radio signals transmitted from the satellites, a GPS receiver on the ground can calculate its distance from a satellite. The distance from a satellite to a receiver can be conceptualized as forming a sphere of possible receiver locations around the satellite. The actual location of the receiver on the earth is determined through the trilateration of four or more satellites, that is, the location is defined as the intersection of four or more satellite spheroids.
In the past, the use of GPS receivers by archaeologists has been limited by several error sources. The positions of the satellites and their atomic clocks are monitored and are supposed to be highly accurate. In reality, however, the satellites drift slightly from their predicted orbits, and their on-board atomic clocks are not completely synchronized. Furthermore, the satellite's transmission is disrupted and slowed as it travels through the earth's troposphere and ionosphere. In addition, as the signal arrives at the receiver, it can be reflected off local obstructions, causing "multipathing," a process that interferes with the true straight line signal. All of these factors introduce errors into the calculation of the distance between a GPS receiver and a satellite. By far the largest source of error, however, is "selective availability." This is the intentional degradation of satellite signals by the DoD and is achieved by introducing errors into the clock and orbit data transmitted by the satellites. Taken together, these sources of error cause most GPS receivers to have horizontal accuracies of within 100 m and vertical accuracies of within 173 m 95 percent of the time.

To offset these errors the process of differential correction is often used. This involves establishing a "base station" receiver at a known location, and collecting GPS positions at unknown locations with "rover" receivers. The data collected at the base station are compared with the known coordinates of the base station to determine the ever-changing errors in the satellite data. The error information from the base station is then applied to the data collected by the rovers to establish accurate rover positions. Rover receivers must be within approximately 150 km of base stations to obtain optimal differential correction. Base station data can be obtained through government organizations, in our case, the National Park Service, or through local base stations set up by a user. The process of differential correction can occur in either real time (i.e., in the field), or through postprocessing once the base and rover data have been collected (i.e., at a field station). With differential correction, the horizontal accuracy of many GPS receivers is on the order of 20 to 70 cm.

Two other recent developments have enhanced the utility of GPS for archaeologists. The first concerns the type of satellite transmissions being received. Whereas older and less expensive receivers have relied on coarse/acquisition (C/A) pseudo-random code signals, newer models incorporate carrier-phase receivers and have become much more affordable. The difference between the two involves how continuous transmissions are divided and measured. A clear explanation of the process can be found on the Trimble web page ([http://www.trimble.com](http://www.trimble.com)). The second development concerns the number of channels that a GPS receiver can monitor. Older receivers monitor a limited number of channels and must sequence through all of the visible satellites to obtain information. In newer, multichannel GPS units, multiple channels track several satellites simultaneously, allowing the receiver to monitor carrier phase signals, but more importantly for archaeologists, it allows the instrument to calculate accurate positions at a much faster rate. Whereas three years ago it would take a good receiver four or five minutes to calculate an accurate position, modern receivers establish positions in one or two seconds. The combination of increased accuracy and speed now make it feasible to use GPS to map both the morphology and distribution of archaeological features.

There are many brands of GPS receivers on the market. Some of the most affordable and accurate are manufactured by Trimble Navigation. We used two Trimble Pathfinder GPS 8-channel Pro XR receivers attached to TDC1 dataloggers. The units are capable of receiving C/A code with carrier-phase filtering and have instantaneous full wavelength carrier-phase measurement. The units were connected to compact dome antennas and were held along with rechargeable batteries in ergonomically designed fanny packs. The individual dataloggers were attached to the GPS receiver by a short cable, and information was displayed on a small 6-x-4-cm LCD screen. The interface of the datalogger consisted of an easy-to-use menu-driven program. Users input data through a keyboard, numeric pad, directional arrows, enter keys, and a range of function keys. Customized database "libraries" can be loaded into the datalogger to make data acquisition easier, but we found the "generic library" to be so simple, flexible, and easy to use that it was unnecessary to modify it. The GPS unit is easily operated by one person in the field, although two people are shown acquiring data in Figure 1. We used the Pathfinder Office differential correction software on a 75 MHZ Pentium laptop computer. We acquired two types of base station data. The first was base station data collected at Kaloko National Park on Hawai'i Island by the National Park Service, which we downloaded via a modem. As we were interested in how the GPS system would work in situations where institutional base station data were unavailable (as would be the case on some isolated Pacific islands), we also configured one of the receivers to act as a local base station and used the other receiver as a rover. The GPS rover data were downloaded from the datalogger daily and corrected with one or
both of the base station data sets. We printed out maps each night on a Hewlett-Packard DeskJet 340 printer and field checked them the following day. This collection of equipment was used to rapidly complete the survey and mapping of surface archaeological features in Pāhinahina ahupua'a of North Kohala District.

Figure 1: The collection of data with the Trimble GPS unit.

North Kohala Archaeology and Environment

North Kohala is located on the northernmost tip of the island of Hawai'i and encompasses both windward (eastern) and leeward (western) regions of the island. Archaeological research on the leeward side of the district has focused on the Kohala agricultural field system with significant contributions by S. Newman (1970, Hawaiian Fishing and Farming on the Island of Hawaii in A.D. 1778, Division of State Parks, Department of Land and Natural Resources, Honolulu, Hawai'i), P. H. Rosendahl (1994, Aboriginal Hawaiian Structural Remains and Settlement Patterns in the Upland Agricultural Zone at Lapakahi, Island of Hawaii. Hawaiian Archaeology 3:14-70), and H. D. Tuggle and P. B. Griffin (editors, 1973, Lapakahi, Hawaii: Archaeological Studies. Social Science Research Institute, University of Hawai'i, Honolulu). Recently, T. N. Ladefoged, M. W. Graves, and R. P. Jennings (1996, Dryland Agricultural Expansion and Intensification in Kohala, Hawai'i Island, Antiquity 70:81-880) have developed a GIS for the entire Kohala field system. This reticulated and essentially contiguous field system is estimated to be more than 40 km², extending along the slopes of North Kohala for more than 19 km. Our published work has emphasized the environmental and social factors implicated at the end point of expansion and intensification of the field system, although we are now involved in modeling the variable process of agricultural change during the last 300 to 400 years. While the field system is increasingly well known and documented via aerial photographs and GIS analysis, the associated coastal settlements have only been documented at Lapakahi and a few other localities during recent contract projects. We have begun to focus on these coastal settlements to understand the variable role that gender-and elite-based social organization and subsistence practices may have played in the expansion and/or intensification of upland agriculture.

1997 Fieldwork in North Kohala

A joint research project involving the University of Auckland and the University of Hawai'i at Mānoa conducted preliminary fieldwork during summer 1997. The season's objectives were to understand the coastal settlements of the southern ahupua'a in North Kohala and evaluate the potential of GPS receivers for effectively gathering archaeological data. The coastal settlement of a single ahupua'a known as Pāhinahina was surveyed, mapped,
and recorded (Figure 2). We also did less intensive work in two nearby ahupua’a (Kahuã 2 and Mâkiloa), one of which had been previously surveyed. The work in Pãhinahina represented our initial effort to integrate GPS with the ongoing GIS we have developed for North Kohala. No previous systematic archaeological research had been done at Pãhinahina; only four sites had been recorded, but their nature and locations were only partly described.

![Figure 2: The figure displays an aerial photograph of Pahinahina ahupua'a that was georeferenced and photogrammetrically corrected using ground control points collected with the GPS unit. The ahupua'a boundaries are shown as straight black lines. The archaeological features shown as white lines and the dirt roads shown as black lines were also recorded with the GPS recorder.](image)

The fieldwork in Pãhinahina took place over 10 days, with a crew varying between two and seven individuals, and a total of ca. 240 person hours spent on the survey. An 11.6 ha parcel--defined by the coastline, the Mahukona-Kawaihae highway, and the north and south boundaries of the ahupua’a--was surveyed, identifying 97 separate architectural features. The feature density of 8.4/ha is comparable to the density recorded in the adjacent ahupua’a Kahuã 1 and Kahuã 2, which had been previously surveyed.

Field procedures involved initial survey of the area, flagging archaeological features, assigning inventory numbers, and making basic morphological descriptions. Each feature was later revisited to establish its location and morphology with a GPS and to complete architectural recording forms. Usually, the rate at which features could be located and mapped with the GPS exceeded that of the completion of forms. The GPS data were downloaded daily to a laptop computer installed with the Pathfinder software. Maps of the feature distributions were created and printed after the data were differentially corrected, allowing us to identify potential problems in feature location and to derive solutions before the next day's fieldwork.

As this was the first time to use the equipment, a number of operator errors were identified each night. One error was in the establishment of local base stations. Initially, every time we set up the local base station, we let the receiver determine its position in real time without differentially correcting the data. Further complicating matters, we subsequently established additional base stations throughout the survey area for use in later mapping sessions. The result was that the rover positions corrected with the local base station data for each session were accurate in relative terms to each other, but skewed in relation to any other session of base station data collection. Fortunately, we had the National Park Service base station data to fall back on and use for differential correction. However, in contexts where institutional base station data are not available, the solution is to establish the approximate location of a local base station using undifferentially corrected data, and continue to use those coordinates for subsequent mapping sessions and the establishment of other local base stations.
Another operator error occurred when the number of satellites visible to the local base station dropped to a level where it was difficult to establish three-dimensional positions. We thought this could be overcome by selecting the two-dimensional option on the local base station and rover receivers, requiring one less satellite than the 3-D option. Unfortunately, this option requires an accurate elevation to be determined and entered into the local base station receiver. The error was apparent once we differentially corrected the data and noticed that the points we collected that day were significantly offset in comparison to the data from previous days. These and other instances of operator error were resolved by re-reading portions of the 10 lengthy manuals that came with the equipment. Alternatively, we could have attended the training sessions offered by the manufacturers. Once our initial problems were resolved, the equipment proved easy to use.

A major advantage of GPS survey is having the ability to make plan maps of archaeological sites and features with the instrument. This capability is not generally appreciated, but advancements in GPS technology now make it possible to create feature maps with comparable accuracy to detailed tape and compass maps. In most cases the level of accuracy provided by the GPS receiver (20 to 70 cm) is the same or greater than the discrepancy introduced by the value judgment made by the archaeologist as to where to place the GPS antenna to record a point. In Hawai'i, where architectural features dominate the surface archaeological record, our survey emphasized their location and mapping. Typically, the process of using the GPS to map smaller features simply involved walking around the feature's perimeter. For larger, more complex features, the process involved mapping associated internal or external components, such as walls, terraces, cupboards, and pits. In either case, the GPS data was used to print out a plan map of the feature each night, to be used in the field as a template for drawing in detailed architectural components. An example of mapping a relatively simple residential enclosure is shown in Figures 3 through 5. Figure 3 is an unaltered printout of the differentially corrected GPS data. This feature was mapped by walking clockwise around it, beginning at the exterior of the southwest wall and returning to the starting point. The start and end points of the exterior line match up almost perfectly, demonstrating the accuracy of the GPS unit. The interior of the feature was then mapped, with additional lines defining the doorway, interior cupboard, and facings. These procedures were completed in approximately 20 minutes. A plan map was produced and printed and taken into the field to add the details shown in Figure 4. Figure 5 was then drafted from the field data.
Figure 3: A printout of the differentially corrected data from a residential enclosure.
Figure 4: The field sketch of the residential enclosure shown in Figure 3.
An example of a more complicated feature, probably a religious temple or heiau, is shown in Figures 6 through 8. Again the unaltered printout of the differentially corrected data shows the location of the exterior and interior facings, pavings, and depressions (Figure 6). These components were used as reference points to sketch in the details shown in Figure 7; the final map is shown in Figure 8. It took approximately 25 minutes to complete the initial GPS survey of the feature, and another 30 to 35 minutes to draw in its details--far less time than it would have taken with tape and compass or with plane table and alidade.
Figure 6: A printout of the differentially corrected data from a religious heiau.
Figure 7: The field sketch of the religious heiau shown in Figure 6.
One problem encountered in the mapping of features was the GPS receiver's inability to obtain data under thick vegetation. For the most part, the coastal section of Pāhinahina is grassland with intermittent 1- to 2-m-high kiawe trees and bushes. However, in certain areas the kiawe trees have grown to a height of 4 or 5 m and have trunks and branches that are over 90 cm in diameter. The GPS receiver was consistently able to record data under trees with branches up to 6 cm in diameter, but when the branches were up to 12 cm in diameter, the GPS unit would lose track of the satellites and would take from 5 to 30 seconds to reorient itself and obtain a position. It was virtually impossible to map features under trees with branches over 12 cm in diameter. The GPS unit could not properly track the satellites, and we would move the antenna away from the branches until the unit could be reoriented, delaying the process for about one minute. Even when the unit was able to obtain a position under thick vegetation, the effect of signal multipathing degraded the accuracy of the position, rendering it unusable.

In one instance, the recorded positions deviated by 5 to 7 m. In this case, we resorted to making a plane table and alidade map of the feature, which took approximately four hours. Without the vegetation, a comparable map using the GPS could have been completed in one hour and would have had the additional advantage of plotting the location of the feature in relation to all the other features in the area. It should be noted that Trimble has recently incorporated new "Everest technology" into their latest receivers that should significantly reduce the problems associated with multipathing.

In addition to mapping the morphology and distribution of archaeological features, we used the GPS receiver to gather control points to photogrammetrically correct an aerial photograph of the area. We established the accurate coordinate positions of nine control points that were clearly visible on the aerial photograph. The aerial photograph was scanned using Adobe Photoshop and then rectified with the GPS control points using Arc/Info
NT 7.11. We also used the GPS to survey the jeep trails on the property, the major drainages, and the boundary markers for the ahupua’a. On returning to Auckland, the Trimble Pathfinder GPS data for Pāhinahina was easily exported to Arc/Info NT 7.11 and ArcView 3.0a GIS format, and a map of the area, showing archaeological features, coastline, drainages, boundaries, and highway, was created (see Figure 2).

Conclusions

During this short period of fieldwork, we collected locational, spatial, and contextual data on 97 features in the ahupua’a of Pāhinahina. We estimate that it would have taken at least four times as long to collect comparable data using traditional archaeological survey and mapping techniques. A number of factors enabled us to collect the data in Pāhinahina so quickly and efficiently: (1) the area is quite dry, generally with relatively sparse vegetation cover; (2) Pāhinahina has relatively gentle topography, and no large mountains or valley walls inhibit the visibility of the satellites; (3) the GPS instruments generally withstood the high summer temperatures of Hawai‘i (over 90°F), although on one occasion the local base station datalogger overheated and automatically shut down the LCD display (it did, however, continue to record data); (4) the availability of the National Park Service base station data was an asset, although with two GPS units it is quite simple to set up one as a local base station to enable differential correction.

Archaeologists engaged in research and cultural resource management are increasingly using new technologies to speed data capture and develop new types of analyses. As our work shows, it is now possible to use GPS receivers to quickly and easily survey large areas and make detailed plan maps of archaeological sites and features. Distributional analyses (including seriations) of the architectural features at Pāhinahina are now underway, putting us within reach of describing the trajectory of community development, expansion, and change. Future research along the coast of North Kohala is planned, so that eventually the spatially variable role of resources and cultural practices on the organization and diversification of traditional Hawaiian agriculture and polities also will be within our analytical reach.

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Thegn L. Ladefoged and Blaze O’Connor are at the University of Auckland, New Zealand; Michael W. Graves and Robin Chapin are at the University of Hawai‘i at Manoa.
On May 31, 1997, North American archaeology lost in James B. Griffin one of its most influential practitioners of the past 60 years. He died in Bethesda, Md., at the age of 92 after several years of debilitating illnesses.

Jimmy was born in Atchinson, Kans., on January 12, 1905. Later the family moved first to Denver and then to Oak Park, Ill., where Jimmy would spend his youth. He went to college at the University of Chicago and began his graduate training in anthropology there. In February 1933 he moved to Ann Arbor, Mich., with a graduate fellowship and received his Ph.D. from the University of Michigan in spring 1936. He had married Ruby Fletcher earlier that year; they would have three sons: John, David, and James.

Griffin's move to the University of Michigan was a fateful event—he would spend his next five decades there, going from a graduate student to full professor and long-time director of the Museum of Anthropology. His research and teaching at Ann Arbor would turn that institution into one of the nation's foremost training grounds for American archaeologists working from the Plains to the Atlantic, and from Canada to Florida, with even a few in Europe and Mesoamerica as well.

He spent the first years of retirement (1976-1984) in Ann Arbor too, but moved to Washington, D.C., in 1984 several years after his wife's death in 1979. He was then associated with the Department of Anthropology at the Smithsonian until his death. While in Washington he met and married Mary DeWitt, with whom he spent more than a dozen very happy years.

Jimmy's interest in archaeology was sparked by readings early in his youth and visits to museums. At his Oak Park high school he met Fred Eggan and Wendell Bennett; this friendship would follow a course into graduate school and a professional career in anthropology. The training he received in field archaeology at the University of Chicago was pioneering for the late 1920s. Chicago was at the forefront offering courses in fieldwork, including one by Faye Cooper-Cole. Griffin's first fieldwork was during summer 1929, under the direction of William Krogman, and consisted of a survey of Adams County, Ill., and excavation at the Parker Heights Mound near Quincy, Ill.

By 1930 the Chicago program had become more structured under the guidance of Cole and his assistant, Thorne Deuel. They worked at the Morton Mound in Fulton County, Ill. The field school had illustrious participants sponsored by the Laboratory of Anthropology in Santa Fe, N.M., including two women in a group of seven. All but one went on to careers in anthropology. Cole lectured to this group on Sundays. Griffin has written that much of what they learned about the sequence of cultures in the region was to be found much later in Cole and Deuel's well-known volume Rediscovering Illinois (1937).

By summer 1931, Jimmy had had enough training to conduct his own excavations in the Upper Susquehanna Valley, Pennsylvania, for the Tioga Point Museum. He had to cancel a second season in 1932 because of Depression-caused budget cuts. Instead, he spent that summer writing up the Parker Heights Mound excavations, a manuscript that lay unpublished for 59 years until the Center for American Archaeology in Kamps Steven published it (1991, The Parker Heights Mound at Quincy, Illinois. Appendix 3 in The Kuhlman Mound Group
After graduate school Griffin spent six years in Ann Arbor, involved in museum research and publication. In fall 1939 he joined Jim Ford and Phil Phillips to undertake the Lower Mississippi Survey project. Between 1940 and 1946 he spent the better part of three field seasons conducting surface surveys, while Phillips carried out stratigraphic excavations. Next he turned north to the Central Mississippi Survey, and in summer 1950 he directed the project with Al Spaulding's help. The major focus of the project was at Cahokia, but other fieldwork was done in southeast Missouri, and at the Roots site near the Kaskaskia River. Although these activities continued through 1952 and 1953, Griffin was no longer directly involved.

Griffin's subsequent field activities were modest, first tied into a program in Michigan that brought together specialists in an interdisciplinary effort to look at the landscape in terms of geology, climate, and archaeology. In 1963-1964 he supervised excavations at the Norton Mound group of Hopewelian affiliation in Grand Rapids, Mich. A few years later, encouraged by Jim Price, one of his students, he returned to the northern end of the Lower Mississippi Valley with the Powers Phase project in southeast Missouri (1968-1972). Here successful new field and collection techniques provided Michigan students with an innovative field experience such as the one Griffin had had in Illinois nearly 40 years before.

Griffin's other research activities are much better known through his large number of publications (more than 260) and especially through his three major syntheses: the first in a volume edited by Frederick Johnson (1946, Cultural Change and Continuity in Eastern United States Archaeology. In Man in Northeastern North America, edited by F. Johnson, pp. 37-95. Papers No. 3. Robert S. Peabody Foundation for Archaeology, Andover, Mass.), a second in his festschrift for Fay Cooper-Cole (1952, Culture Periods in Eastern United States Archeology. In Archeology of Eastern United States, edited by J. B. Griffin, pp. 352-364. University of Chicago Press, Chicago and London), and the third in Science (1967, Eastern North American Archaeology: A Summary. Science 156:175-191). While this last synthesis was one of his most cited publications, it was the first to really bring him to the attention of North American scholars. Indeed, Griffin had worked on this synthesis from 1936 on, giving versions of it at numerous professional meetings. His last formal presentation of this paper was at the 1941 meeting of the American Anthropological Association, and it was only because of World War II that publication of this seminal work was delayed until 1946.

No less important than his research contributions was Griffin's legacy as a teacher. During his years at the University of Michigan, he trained or influenced many generations of archaeologists who went on to distinguished careers of their own. By the 1970s and 1980s, Griffin's students, or students of his students, were teaching at most of the major archaeology graduate programs in North America. Indeed, nowadays it is difficult to find a practicing specialist in Eastern Woodlands prehistory who cannot trace academic "kinship" to Griffin. Those who were fortunate enough to learn from Griffin directly remember him as a helpful and caring teacher, who never left his students hanging. He helped when he could, with complete and direct honesty; reciprocally he expected--and usually got--the hard work and effort that his trust demanded from the students. The fact that he was presented with two festschriften when he retired is a testament to the number of students he trained, and to the esteem that his students accorded him (C. E. Cleland, 1976, Cultural Change and Continuity: Essays in Honor of James Bennett Griffin. Academic Press, New York; 1977, For the Director: Research Essays in Honor of James B. Griffin. Anthropological Papers No. 61. Museum of Anthropology, University of Michigan, Ann Arbor).

In one sense Jimmy Griffin was not a hard person to get to know. He attended professional meetings for almost 60 years. His attendance at SAA meetings (which he helped to found in 1934) and the Southeastern Archaeological Conference (which he founded with Jim Ford in 1937) must have set records for both organizations, if anyone had bothered to count. Although his personal side was reserved, he was open professionally to anyone who approached him, especially if they were carrying a new reprint or an unusual sherd. Thus, he met literally hundreds of students and professionals.

Most of his writings were straightforward, with no nonsense. Only in some of his later papers, written after he retired, did he let down his guard a bit. Not that his book reviews were excessively restrained; indeed, he
sometimes showed his students tough reviews written in the 1920s and 1930s to teach them what real book reviews were all about: tell the truth about the volume.

His interest and support of archaeology and anthropology were very broad, as is well documented by his long service to SAA. He held many offices in the society including that of president (1951) and was awarded both its Distinguished Service and Fryxell awards. Abroad he served for many years on the Council of the International Union of Prehistoric and Protohistoric Sciences and thus carried the U.S. banner, as it were, in Europe for many years. He became well known all over Europe and in the Soviet Union, which he visited after many fits and starts. He also had many ties to Mexico; he studied there, made important contacts, and wrote brief, but strong, discussions on the topic of direct Mexican contact with the Southeast. In the 1980s he refuted this tie, however. Among his many other honors were membership in the National Academy of Sciences, an honorary doctor of science from Indiana University, and the Viking Fund Medal for Archaeology.

Late in his life he explained to an inquiring colleague that he chose anthropology as a major because "I was interested in anthropology from the standpoint of what it told us about societies around the world and through time. I was also interested in explanations of why things happened the way they did" [M. J. O'Brien, 1987, Archaeological Profiles: James B. Griffin. Missouri Archaeological Society Quarterly 4(3):15-18].

Those who thought of Jimmy Griffin as a "sherdologist" with no interest in culture or process did not know the man. More's the pity, for they missed a quintessential gentleman, a scholar, a teacher, and a friend. He may have occasionally used "tough love" on his students and those around him (he would have hated that term applied to him), but his frankness and sense of honor were implicit in his every action. We are all the better for it.

Stephen Williams lives in Santa Fe, and Vin Steponaitis is president of SAA and is at the University of North Carolina.
I had the pleasure of first meeting Bente Bittmann in March 1969 at the beginning of the school year at the Universidad de Concepción. She was to be my partner in teaching the first courses on methodology and prehistory to students in the then new anthropology curriculum and she was to share my office. Entering the Chilean archaeological scene as a newcomer, Bente Bittmann soon established an important place in the history of the discipline and became deeply rooted in it.

Born in Nibe, Denmark, in 1929, Bittmann had been trained as an archaeologist and ethnohistorian. Her chief professional years were spent in Chile where she taught at both the Universidad de Concepción and Universidad del Norte from 1969 until the mid-1990s, when she retired to live her final days in her native Denmark. But she never forgot her beloved Antofagasta in northern Chile. She died in the summer of 1997 in Skive, Denmark.

A well-trained anthropologist, Bittmann was an expert on codices, particularly the Codices Cholula and Chaun, as well as the maps of Cuauhtinchan and Tepecoamilco. She was also a noted field archaeologist, having worked in the sambaquis of coastal Brazil, coastal Ecuador, the states of Guerrero, Michoacan, and Oaxaca in Mexico, and in England, Sweden, Denmark, and Chile. Bittman was a dynamic person who excelled as a researcher of past cultures as well as of present-day communities, particularly those of Mexico, Brazil, and Chile. She introduced to Chile innovative methods regarding case studies in industrial and historical archaeology and conducted the only archaeological study of the nitrate plants in northern Chile that flourished.
throughout the Atacama desert from the late 1800s to the 1940s.

Bittmann also published articles on ethnohistory and archaeology in several languages. In collaboration with Gustave Le Paige and Lautaro Nuñez, she wrote *Arqueología Atacameña* (1978, Serie Patrimonio Cultural Chileno, Colección Culturas Aborígenes, Ministerio de Educación, Chile); her publications include more than 100 specialized articles. She leaves not only a rich legacy of detailed fieldwork and publications, but also a reputation as an excellent teacher. She will be missed by all Chilean archaeologists who will remember her with love.

Acknowledgments: Photo and biographical information were provided by Hans Bittmann, to whom I am deeply indebted.

Mario Rivera is a consulting anthropologist and archaeologist in Oak Creek, Wisconsin.
INSIGHTS

Changing Career Paths and the Training of Professional Archaeologists: Observations from the Barnard College Forum
Part I

Joseph Schuldenrein

THE MANY FACES OF CRM

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Nowhere was the disjunction between academic and private/public sector archaeology more keenly apparent than in the latter's responses of high dissatisfaction with their academic preparation for their current careers, and the discrepancy between their career expectations and their actual careers...


Melinda Zeder's article in the *SAA Bulletin* underscores the often divergent trends in contemporary archaeological training and practice. A recent forum on this theme was organized for October 1997 by the Professional Archaeologists of New York City (PANYC) as a sounding board to sample the range of opinion from varied segments of the archaeological community on the issue of graduate education and professional employment. This is the first in a two-part article summarizing the results of the forum and polling contemporary thinking about the direction of archaeological training at the dawn of the new millennium.

The focus of the session was the disjunction between expanding career niches in cultural resources management (CRM) and shrinking opportunities in more traditional academic tracks. The greater New York area was an appropriate locale for the forum, since it is a microcosm, perhaps even a harbinger, of national trends. New York is a major center for all sectors in archaeology: academic research (Old and New World); public education and
museum venues; government compliance archaeology (federal, state, and especially municipal); and for private-sector opportunities (preservation and heritage management).

The forum took nearly a year to plan and involved the collective efforts of PANYC committee members representing each sector. Invitations were extended by post and electronic mail to institutions, organizations, and individuals in the metropolitan archaeological community. An overarching objective of the forum was to sample student sentiment and response to the changing employment picture at a time when formal graduate training has become more costly, time consuming, and demanding than at any time since the emergence of the traditional four-field curriculum. A measure of the compelling nature of the forum was that it was attended by 50 archaeologists, approximately half of whom were students.

The program was divided into two segments: a formal session with invited speakers and an open floor discussion affording participants the opportunity to question speakers and to air particular concerns. The balance of Part I of this article summarizes the issues articulated by the speakers in the formal presentation. Part II will address the themes that emerged from the open discussion. Not surprisingly, passionate and often unanticipated responses were registered from all quarters of the archaeological community, converging on several core themes that, irrespective of individual or collective attitudes, appear to be paramount in fashioning longer term discourse. These are currently being synthesized by PANYC's steering committee in a position statement to conclude Part II.

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Formal Presentations

Speakers were selected from a cross-section of archaeological perspectives and work settings in the metropolitan New York area. Included were academic archaeologists (Nan Rothschild, Barnard College; Anne-Marie Cantwell, Rutgers University); a CRM-based academic (David Bernstein, SUNY-Stony Brook); a museum archaeologist (David H. Thomas, American Museum of Natural History); a government archaeologist (Louise Basa, New York Department of Environmental Conservation/retired); CRM consultants (Joel Klein, John Milner Associates; Joseph Schuldenrein, Geoarcheology Research Associates); and two advanced graduate students (Chad Gifford, Columbia University; Susan Dublin, City University of New York).

Academic Perspectives

Anne-Marie Cantwell's opening remarks set the tone for the forum emphasizing that since preservation concerns and the law are the main forces currently driving the archaeological profession, educators must ask themselves if traditional training is adequate to meet the needs of those students filling newly created jobs. What will the new generation of archaeologists need to know? Are we concerned that students not only be equipped to fill positions but that they remain true to the stewardship of the resources under their charge?

Rothschild underscored the significance of the information explosion as a double-edged sword; on the one hand, the expansion in archaeological knowledge opens up new vistas in data collection, analysis, and interpretation, while, on the other, tight university budgets are shifting the onus of teaching increasing amounts of material to fewer faculty. Given the need to train students for "real world" issues, the challenge to university professors grows progressively more daunting. Her solution to the "overload" in the academic system is to encourage students to pursue their own interests and to integrate these with formal principles in method and theory acquired in the classroom. She noted that this track is being followed by most North American archaeologists who buttress their training with summer work in contract settings and/or more formal internship programs. She also identified the need for occasional formal instruction in CRM by practitioners.

David Bernstein offered insights into the fast-fading world of CRM programs housed under the university umbrella. Paradoxically, while no formal CRM courses are currently offered at his institution, most graduate students will end up in CRM irrespective of initial regional or methodological specialization. He bemoaned the
fact that since most practitioners will probably begin their careers outside their chosen expertise, their initial work attitudes would be--wittingly or unwittingly--partially negative. It is therefore imperative that university departments be candid with entering students about career expectations and options. Bernstein sees a general decline in the future of university-based CRM programs with the exception of the western states. On the immediate horizon, the greatest opportunities for CRM growth are in the international arena. Training programs must stress the paramount role of writing--doing it rapidly and well--as the main tool for success in either CRM or academic spheres. Further, the demise of the university field school leaves students without the basic empirical and adaptive skills to work as archaeologists in challenging settings. Universities will not add "CRM specialists" to faculty, because of financial constraints, and he proposes that larger CRM firms network to fund training programs and faculty lines. "On-the-job" training appears to be the most immediate solution to bridging the gap between CRM employment and the conclusion of academic training.

The Museum in Transition

David Hurst Thomas pointed out that the dynamics of museum-archaeology interaction has undergone a full-scale metamorphosis over the past 20 years. He reviewed the history of the American Museum of Natural History, recalling that institution's pre-modern vision of the Native American as "vanishing savage," a perspective that once motivated contributions and museum-sponsored excavation across North America. Progressive paradigms of preservation and the ethic of multiculturalism have completely altered the model, while the emergence of CRM, the Section 106 process, and most instrumentally, NAGPRA, have completely overturned the museum's mission. Generally, museums are no longer owners of the past; they are, at best, its stewards. Such institutions now find themselves on the defensive, struggling to control collections that have been warehoused for decades. With respect to employment, he noted that archaeological excavation has nearly disappeared as a centerpiece for museum activity, in part for the reasons cited above, but also because the institutions have been technologically outpaced by private industry that can run excavations more efficiently and with fewer constraints. Thomas praised the explosion in high quality data reporting--the "gray literature"--noting that its broad reach has facilitated a transition in the role of museum archaeology divisions from data collectors to data synthesizers. Most significantly, the museum's charge may serve a growing demand to educate the public in new ways.

The Government Window

Louise Basa reflected on the unique transition between academia to the workaday world of government archaeology. Her experiences span the past 25 years, a period when the regulatory environment was actively evolving. The pace of change has been dynamic, but the anthropological perspective on cross-cultural exchange facilitated communication between a "wet-behind-the-ears academic" and the government bureaucrats who had no idea how their duties would be transformed as a result of environmental and preservation laws of the late 1960s and 1970s. Basa argued for maintenance of the four-field approach tempered with a healthy influx of empirically relevant courses. This will ensure that contemporary practitioners can tackle delicate planning issues armed with a working familiarity of the compliance process as well as a grounding in well-formulated research designs.

Private Sector: The Buck Stops Here

Private-sector concerns were perhaps the most controversial, contrasting the urgency of business performance with the more deliberate pace and scope of university training. Joel Klein intimated that either an overhaul in curricula or a significant complement of CRM courses might help rectify the discrepancies between private-
sector demand and more typical university syllabi. Realistically he proposed a comprehensive and thorough course in CRM, which stressed the topic of ethics above and beyond other concerns. He expressed fears that the expanding reach of large engineering firms threatens to endanger cultural resources whose stewardship will become a sacrificial lamb to larger ticket items on the firm's agenda; unsavvy (i.e., CRM-deficient) archaeologists could be unwitting victims of these trends. A CRM course must also disabuse students of the notion that there is always a research topic under every project umbrella. The conservation ethic stresses conservation; preservation in place is the objective of most projects and cannot be compromised in the interests of an archaeologist's pet research topic.

Klein also highlighted the changing business climate in CRM, echoing Bernstein's observation that international CRM may emerge as the main growth sector for the industry. Klein concluded with an examination of the emerging employment hierarchy in the CRM world, noting its advantages and pitfalls. There are three nested employment levels ranging from archaeological technician, to field director/principal investigator, and project manager. Archaeological technician is the most transient position, although recent unionization threatens to limit mobility and access to new graduate students. Ironically, the field director slot may be most palatable to younger Ph.D.s because it still affords direct research contact and publication and research opportunities. The highest rung, project manager, necessitates increasing distance from the research front, since the position entails more managerial and marketing responsibilities. The transition to "Archaeology as Big Business" is a lesson that must be imparted to graduate students even if they proceed to academic careers.

Joseph Schuldenrein's presentation placed the emergence of CRM archaeology in historic perspective. He demonstrated that demographics and economics accounted for the emergence of archaeology as a profession. The late 19th- and early 20th-century archaeological pioneers were rich, leisure-class white men (Carter, Flinders-Petrie, Wooley, Putnam, Mercer) and women (Kenyon, Caton-Thompson, Garrod) who pursued an antiquarian interest. Between the 1920s and 1960s emergence of the middle class and the postwar boom in the United States created an equilibrium in the university and government sector, wherein those few individuals disposed to archaeology could be accommodated by a wealthy and expanding economy. This period peaked in the 1960s and 1970s (Vietnam war era) as the early baby boomers pursued "sexy" topics in paleoanthropology, Mesoamerican studies, and origins of agriculture. Academic departments and funding agencies financed these ventures, prolifically at first, but by the late 1970s this brief surge came crashing down. Once well-funded programs dried up and the onset of the depressed financial cycle had serious ramifications on research and university training programs. The only subsequent boost to archaeological work was the tandem emergence of the environmental and preservation movements. However, the financial fortunes of university programs have remained in relatively steady decline, thus creating a crisis in traditional university employment. Courses, programs, and, most significantly, career choices are being offered by tenured faculty who were weaned, trained, and matured in the boom years; their trainees are students who are coming of age in an archaeological environment light years removed from that of their mentors. Schuldenrein argued that with CRM driving 85 percent of the domestic funds designated for archaeology, the industry must play a more active role in revising university curricula. Empirical skills--including high technology, sophisticated sampling, heritage preservation, and public education--should work their way into comprehensive archaeological programs. He emphasized that the sophistication of the CRM profession is such that on-the-job training is no longer practicable for freshly minted Ph.D.s beginning their careers on a CRM track. Recent informal surveys have shown that well-structured internship venues may be the most palatable solution for university and CRM programmers alike.

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And What about the Kids?

The two graduate student presenters assessed their graduate training experiences with an eye toward future employment. Contrasting perspectives emerged from each. Susan Dublin proposed that much of the conflict between academic and CRM sectors may simply be a "habit of thinking"; the reality is that most students incorporate the methodological and theoretical stances of their mentors but acquire empirical skills in the CRM sphere. CRM is a necessary stepping-stone in the graduate school experience for both pragmatic (i.e., economic
survival) and training reasons. Because of the need to work in the private or public sectors, the duration of post-B.A. through Ph.D. training has soared from eight to 14 years between 1964 to 1994. Dublin noted that the adjunct teaching tract was notoriously exploitative, consuming inordinately high levels of energy and time for low pay. She credited private-sector archaeology for honing her own proposal-writing skills and singled out contract firms for instruction in high-tech and public information skills, benefits not readily available in the classroom. Dublin underscored the need for "fluidity" for young professionals who will be constantly shuttling between academic and CRM settings for much of their careers. She is supportive of dialogue between academia and the CRM world, suggesting that "hands on" archaeology begin as early as the undergraduate level. Internships and apprenticeships must be explored. While unqualified revamping of curricula is unwarranted, Dublin sees a need for practical knowledge (i.e., CRM skills, preservation law) to be imparted in the classroom.

Chad Gifford, a specialist in South American archaeology who has never been involved with CRM, offered his perspective. He has completed a traditional education, recognizing the uncertainties of an academic future. In support of the tenuous position of contemporary graduate students, Gifford cited examples of three freshly minted, relatively well-published New World colleagues, all of whom were doggedly holding out for academic positions and biding their time in non-CRM environments. Despite his recognition of the changing employment landscape, Gifford took issue with the forum's prevailing undercurrent that "graduate training in archaeology today is not as relevant as it should be." He contended that a less academic training would render him even less qualified to pursue his ideal job. To accommodate CRM concerns, Gifford proposes terminal M.A. programs. Should contemporary employment trends continue, he suggests a CRM component would eventually be forced into Ph.D. curricula. Given his purely academic credentials, Gifford wondered how qualified he would be for a CRM position, although he thought that with some training he could function in that context. Gifford remains a stalwart holdout for an academic track position.

What Next?

The divergence in student attitudes was surprising to some of the seasoned speakers, although the significance of the crisis in employment was recognized by all. The responses elicited by the presenters produced an array of opinions, limited consensus, and heated debate. Details of the ensuing discussion and recommendations for future action will be presented in Part II in the next SAA Bulletin.

Joseph Schuldenrein is president of Geoarcheology Research Associates, a CRM firm based in New York. He is also a visiting scholar at New York University.

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SLAPP and the Historic Preservationists

John Stephen Alexandrowicz

Professional and avocational historic preservationists working in the United States should be aware of the possibility of being sued for exercising their First Amendment constitutional rights to freedom of speech and freedom to petition the government while advocating historic preservation projects. Consider the following account of what happened to me. To avoid future problems and misunderstandings, I have omitted the names of cities, developers, and individuals. Full documentation of this case can be obtained from me on request.

Several months ago, a friend asked me to assist him and a local historical society in a variety of efforts to preserve historical and prehistoric archaeological sites, historic buildings, and landscape that were in jeopardy of destruction through government agency inactivity, general negligence, and environmental erosion. Of particular concern were changes in a developer's construction plan that appeared to contradict a Section 106 review process memorandum of agreement (MOA) between the developer and local, state, and federal agencies.

My colleague, a member of a local historical society, had legal right to visit historical properties, including this site. At his invitation I accompanied him and we amassed a photographic documentary of the demise of these significant resources. Concurrently, we wrote letters and included photographs to federal, state, and local government agencies regarding the project, asking for their assistance and support. Our petitions and photographs got the attention of federal and state agencies, and their review process impinged on the developer's construction schedule, as well as other matters relating to the city. For our efforts to preserve historic properties evaluated as eligible for the National Register of Historic Places and protected by a memorandum of agreement, the developer served separate lawsuits on me and my friend. In particular, the developer accused me of "trespass," which allegedly caused "damages" to the development.

In reality, we were sued for exercising our First Amendment rights of freedom of speech and freedom to petition the government. The developer's trespass lawsuit was really a thinly disguised "Strategic Lawsuit Against Public Participation" (SLAPP) against me and 10 unnamed "Does" (i.e., John Does). SLAPPs most commonly seem to be filed against anybody who publicly complains about a public issue. As Pring and Canan (March 29, 1996) state in their New York Times article entitled "Slapp-Happy Companies":

More and more often the companies' targets are neighborhood groups, environmentalists, consumer watchdogs, good government groups, homeowners associations, and individuals. Their sin? Exercising their first amendment right 'to petition the government' by speaking out at public hearings or contacting their elected representatives about corporate or governmental misdeeds.

Lawyers and judges call such suits SLAPPs, for strategic lawsuits against public participation. A nationwide study we recently completed for the National Science Foundation found that there were virtually no such suits before 1970, but since then tens of thousands of Americans have been sued and untold thousands have been silenced by threats...

Recognizing that public participation is essential to a democracy, 10 states, including New York, have passed laws against SLAPPs.

Furthermore, Mark Goldowitz, attorney and director, and Anna Marie Stenberg, organizer, at the California Anti-SLAPP Project, recently wrote in a letter to Archaeological Consulting Services, Lytle Creek, Calif., that
California's pioneering anti-SLAPP law, Code of Civil Procedure 425.16, was finally signed into law by Governor Wilson in 1992, after twice being passed by overwhelming majorities in both houses of the Legislature and then vetoed by Republican governors Deukmejian and Wilson. Since the anti-SLAPP law has been on the books, it has been a big help in protecting our constitutional right to petition the government and speak freely on issues of public interest.

However, in the last year, there have been three decisions from the First Division of the First District Court of Appeal (in San Francisco) that narrowly interpret 415.16 and limit the protection citizens who are exercising their First Amendment rights to petition the government or speak freely on issues of public interest have under the law.

However, SLAPP lawsuits and attendant allegations can be successfully dismissed before any court trial. For example, California laws include a provision for a "Special Motion to Strike" against such SLAPP actions, which should be seriously considered in preparing a case. In order to provide a brief background on the Special Motion to Strike, I cite the following excerpt from an article by Mark Goldowitz that appeared August 4, 1997, in the *San Francisco Daily Journal* and was entitled "Critical Stops: Battle over the Scope of California's Anti-SLAPP Law*:

California's anti-SLAPP law, Code of Civil Procedure (C.C.P.) Section 425.16 was enacted in 1992 by bipartisan votes of 34-1 in the Senate and 68-1 in the Assembly. Its stated purpose is to protect citizens' rights to petition the government and to speak on public issues without being faced with a retaliatory lawsuit--that is, a strategic lawsuit against public participation.

SLAPPs are generally considered meritless lawsuits designed to silence critics. Opponents say they clog the courts and chill public participation in the democratic process.

C.C.P. Section 425.16 provides for speedy identification and dismissal of SLAPPs at the beginning of the case. Since its enactment almost five years ago, the anti-SLAPP law has spawned 19 published opinions, and all but four found the law applicable.

The statute requires a two-step process. First, a defendant making a special motion to strike a complaint must make a prima-facie showing that the action arises from acts in furtherance of constitutional rights of the petition of free speech. Then the plaintiff must make a prima-facie showing of a probability of prevailing on the claims. [Wilcox v. Superior Court, 27 Cal. App. 4th 809, 819-821, 830 (1994)].

If the Special Motion to Strike is successful, then the plaintiff is responsible for paying for the defendant's legal fees and court costs. The bottom line is that you can win against SLAPP actions, while preserving our nation's cultural heritage. I survived the SLAPP and beat the opposition by filing such a motion, which forced the plaintiff into settlement of the lawsuit.

Here are a few personal suggestions in the event that you are confronted with a SLAPP:

1. All of your knowledge of a particular project or subject must be accurate and verifiable. Keep records of all pertinent communications (i.e., letters, faxes, telephone calls, email, etc.)

2. All of your correspondence should be addressed and/or copied to a government agency (i.e., federal, state, and/or local).

3. To avoid libel or slander complaints, do not accuse any person or entity of any crime. Instead, gather facts and ask questions regarding the particular project and responsibilities regarding regulatory compliance.

In the event that you are SLAPPed, here are a few recommendations:
(1) Discuss the situation with family, respected colleagues, and potential legal counsel.

(2) Contact the local bar association referral service, as well as the local historic preservation organizations and/or agencies in order to locate a lawyer qualified to represent your case.

(3) Retain the services of a reputable attorney. The attorney should be proficient in constitutional law, as well as SLAPPs. Several California attorneys spearheaded the passage of anti-SLAPP legislation in the state. In addition, information on SLAPPs can be obtained from the California Anti-SLAPP Project (below). Cooperate fully and provide all necessary documentation. Note that review of your files, preparations of declarations, and background paperwork will consume a great deal of time.

(4) Ask the attorney to represent you for the entire case. Inquire if the attorney can be paid through your homeowners insurance policy, especially if you do not have several thousands of dollars to commit to your legal defense fund. Before doing this, make sure that your insurance company will not cancel your policy as a result of this action.

(5) If depositions take place, appear in formal attire. Be well prepared in all factual matters regarding your activities that relate to the case. Take your time in answering all questions. If appropriate, while you are testifying, question the plaintiff's attorney(s) on important points.

(6) Maintain professionalism during all facets of the legal proceedings.

(7) Be reasonable in your expectations in settling the case, prior to additional hearings and trial. Settlements do not always equate with a "get rich quick scheme."

(8) Make sure that all parties (i.e., plaintiff, defendant, and their respective attorneys) sign and date any settlement agreement(s).

(9) Your attorney should ensure that the plaintiff's attorney files a "Request for Dismissal" regarding your case with the appropriate court and county clerk.

I am not an attorney, but I am a dedicated historic preservationist who has worked closely with attorneys and their professional staffs. I share this information with the historic preservation community so that we may accomplish our mutual mission of preservation, while being aware of and prepared for malicious SLAPPs.

Epilogue

As a sequel to the original submission of this article, I am happy to report that in early 1997, California Senate President Bill Lockyer introduced Senate Bill 1296, an amendment to C.C.P. Section 425.16, which provides for a broad interpretation of First Amendment rights of free speech and petition of the government. His July 28, 1997, news release states:

"The Senate today sent to the Governor's desk legislation by Senate President Pro Tem Bill Lockyer, to stop SLAPP suits, lawsuits designed to prevent citizens from exercising their constitutional right of free expression. `No one should have to worry about being sued because they exercised their constitutional rights,' said Lockyer."

The bill unanimously passed the senate on May 28, 1997, and the state assembly on July 18, 1997. I might add that my anti-SLAPP colleagues lobbied our California legislative representatives through our First Amendment rights of free speech and petition of the government in order to request support for S.B. 1296. State Senator James Brulte (1997), my local representative, voted in favor of this legislation as stated in his reply to my petition.
I would like to highlight the fact that State Senator Lockyer's July 28, 1997, press release contained a statement directly relating to my SLAPP:

Lockyer authored the original anti-SLAPP law in 1994, but he said the new law is necessary because of court rulings which have interpreted the law too narrowly. Existing law protects 'written or oral statements' made in government proceedings, but courts have allowed SLAPP suits aimed at stopping other types of protests. S.B. 1296 extends the protections to 'any other conduct' designed to express a viewpoint on an issue of public interest. For example, S.B. 1296 would apply to a recent lawsuit by a rent control board aimed at silencing a protesting property owner by a landlord aimed at silencing protesting tenants by a school district aimed at stopping a parent protest, by a garage owner aimed at stopping an environmental group from obtaining air quality samples, and by a developer aimed at stopping a historical society from photographing his illegal actions...

Finally, and most importantly, on August 11, 1997, Governor Pete Wilson signed S.B. 1296 into California Law, protecting the broad interpretation of Californians' First Amendment rights, including historic preservationists who are actively pursuing preservation of our cultural heritage.

For more information, contact Mark Goldowitz, Director, California Anti-SLAPP Project, 1611 Telegraph Ave., Ste. 1200, Oakland, CA 94612, (510) 835-0850, fax (510) 465-1986, email casp@sirius.com, or Anna Marie Stenberg, Organizer, California Anti-SLAPP Project, 254 Wall St., Fort Bragg, CA 95437, (707) 964-9109, fax (707) 964-7846, email stenberg@wco.com.

Acknowledgments: I would like to express sincere appreciation to the following individuals who provided legal counsel, information, and/or support during my SLAPP: Mark Goldowitz and Anna Marie Stenberg of the California Anti-SLAPP Project, Jason Walsh (attorney), Susan Brant Hawley (attorney), Jeff Eichenfield (past-president, California Preservation Foundation), and John Anicic, Jr. (historic preservationist). In addition, Stenberg provided continuous support and thoughtful comments during preparation of this article.

*John Stephen Alexandrowicz is director of Archaeological Consulting Services in Lytle Creek, Calif.*
Books Received

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


Images of the Recent Past: Readings in Historical Archaeology. C. E. Orser, editor. Altamira Press, Walnut Creek, Calif., 1996. (paper).


Landscape Archaeology: Reading and Interpreting the American Historical Landscape. R. Yamin and K. Bescherer Metheny, editors. University of Tennessee Press, Knoxville, 1996. xlii + 292 pp., 104 figures, 5 tables, selected references, index. $48.00 (cloth).

Landscapes of Settlement: Prehistory to the Present. B. K. Roberts. Routlege, New York, 1996. x + 181 pp., 9 plates, 55 figures, references, index. $69.95 (cloth), $24.95 (paper).


Living on the Boott: Historical Archaeology at the Boott Mills Boardinghouses, Lowell, Massachusetts. S. A. Mrozowski, G. H. Ziesen, and M. C. Beaudy. University of Massachusetts Press, Amherst, 1996. xv + 93 pp, 34 illustrations, sources and further readings, index. $40.00 (cloth); $ 12.95 (paper).

Living with the Ancestors: Kinship and Kingship in Ancient Maya Society. P. A. McAnany. University of Texas Press, Austin, 1995. xiv + 213 pp., 43 figures, notes, bibliography, index. $27.95 (cloth).


The Managed Mosaic: Ancient Maya Agriculture and Resource Use. S. L. Fedick, editor. University of Utah Press, Salt Lake City, 1997. xiv + 424 pp., 106 figures, 19 tables, bibliography, index. $60.00 (cloth).

Marius Barbeau: Man of Mana. L. Nowry. New Canada, Toronto. $27.95.


Modelling the Early Human Kind. P. Mellars and K. Gibson, editors. McDonald Institute for Archaeological Research, University of Cambridge. Distributed by the David Brown Book Company, Oakville, Conn., 1996. ix + 229 pp., 41 figures, 20 tables, references. $50.00 (cloth).

Mounds, Embankments, and Ceremonialism in the Midsouth. R. C. Mainfort and R. Walling, editors. Research Series No. 46, Arkansas Archeological Survey, Fayetteville, 1996. xi + 97 pp., 72 illustrations, 10 tables, references cited, index. $20.00 (paper).

The Moundville Expeditions of Clarence Bloomfield Moore. V. J. Knight, Jr., editor, and introduction. University of Alabama Press, Tuscaloosa, 1996. viii + 224 pp., 177 figures, index. $ 29.95 (paper).
NEWS AND NOTES

Silk Road Tours of Vancouver, British Columbia, Canada, has opened its first North American office and is seeking archaeologists interested in serving as tour leaders for tours to Iran. Special custom-made tours for groups or individuals are also combined with tours to other Middle East countries. All land and air arrangements would be made and paid by Silk Road Tours, although the tour leader would help to establish an itinerary. An English-speaking guide would be provided, as well as contacts for archaeological sites to be visited. For more information, contact Silk Road Tours at (888) 881-7455, (604) 925-3831, or email silkroad@smartt.com.

Announcing the arrival of a new online anthropological journal! Internet Journal of Anthropological Studies (IJAS) is based at the University of Montana, Department of Anthropology, and is a student-developed and -edited forum for all scientific papers dealing with anthropological studies. The journal is open to all professional anthropologists and students. The editors invite all graduate associations and anthropology clubs to forward their email address to the journal so information pertaining to calls for papers and upcoming journal issues can be posted directly to the group's address. IJAS is accepting papers for publication. Papers can be sent by either email or snail mail. If sent snail mail, the paper must be on disc. For further requirements, please check the IJAS home page at: http://taylor.anthro.umt.edu/ijas/ijashome.htm (keyword "call for papers").

The Centro de Investigación de Arte Rupestre del Uruguay (CIARU) sponsors a new bilingual site on the Internet and invites your comments. The site (http://www.geocities.com/Athens/Parthenon/6994) is dedicated to rock art and archaeology.

El Centro de Investigación de Arte Rupestre del Uruguay (CIARU) presenta un nuevo sitio bilingue en Internet e invita sus comentarios. El sitio (http://www.geocities.com/Athens/Parthenon/6994) se dedica principalmente al arte rupestre y la arqueología.

The Center for Advanced Study in the Visual Arts, a part of the National Gallery of Art, announces a program for the Samuel H. Kress/Ailsa Mellon Bruce Paired Fellowships for Research in Conservation and Art History/Archaeology. Applications are invited from teams consisting of two scholars: one in the field of art history, archaeology, or another related discipline in the humanities or social sciences, and one in the field of conservation or materials science. The fellowship includes a two-month period for field, collections, and/or laboratory research, followed by a two-month residency at the Center for Advanced Study, National Gallery of Art. This fellowship is supported by funds from the Samuel H. Kress Foundation and from endowed funds for Visiting Senior Fellowships from the Andrew W. Mellon Foundation. Applications will be considered for study in the history and conservation of the visual arts (painting, sculpture, architecture, landscape architecture, urbanism, graphics, film, photography, decorative arts, industrial design, and other arts) of any geographical area and of any period. A focus on National Gallery collections is not required. These fellowships are open to those who have held the appropriate terminal degree for five years or more and who possess a record of professional accomplishment at the time of application. Awards will be made without regard to the age or nationality of the
applicants. Each team is required to submit an application for the Samuel H. Kress/Ailsa Mellon Bruce Paired Fellowship. Seven sets of all materials, including application form, proposal, a tentative travel schedule indicating the site(s), collection(s), or institution(s) most valuable for the proposed research project, and copies of selected pertinent publications must be forwarded by the application deadline, March 21, 1998. In addition, each team member must ask two individuals to write letters of recommendation in support of the application. For information and application forms, write to the Center for Advanced Study in the Visual Arts, National Gallery of Art, Washington DC 20565, (202) 842-6482, fax (202) 842-6733, email advstudy@nga.gov. Information on this fellowship program and others at the center is available at http://www.nga.gov/resources/casva.htm.

Announcing the new Claude Albritton Fund for Archaeological Geology. Under the auspices of the Geological Society of America's Archaeological Geology Division, family, friends and close associates of Claude C. Albritton, Jr., have formed a memorial fund in his honor at the GSA Foundation. The Albritton Fund will provide scholarships and fellowships for graduate students in the earth sciences and archaeology. Recipients of these awards will be students who have (1) an interest in achieving the M.S. or Ph.D. degree in earth sciences or archaeology; (2) an interest in applying earth science methods to archaeological research; and (3) an interest in a career in teaching and academic research. Awards in the amount of $500 will be given in support of thesis or dissertation research, with emphasis on the field and/or laboratory parts of this research. Those desiring further information about these scholarships should contact Reid Ferring, Institute for Applied Sciences, P.O. Box 13078, University of North Texas, Denton, TX 76203, (817) 565-2993.

The Archaeological Geology Division of the Geological Society of America announces a $500 travel grant for a student to attend GSA's annual meeting in Toronto, October 26-29, 1998. The competitive grant will be awarded based on the evaluation of an abstract and 1,500-2,000-word summary paper prepared by a student for presentation in the division's technical session at the GSA meeting. The summary paper may include one figure and must be by one author. The deadline is May 1, 1998. Applications should be sent to William Farrand, Awards Committee Chair, Exhibits, Museum of Natural History, 1109 Geddes Ave., University of Michigan, Ann Arbor, MI 48109-1079, (313) 763-4191, fax (313) 647-2767, email: wfarrand@umich.edu.
POSITIONS OPEN

An assistant professor position, specializing in Mexican/North Central American Colonial archaeology is available at the University of Calgary (pending budget approval). The Department of Archaeology invites applications for a tenure track position, at the rank of Assistant Professor to teach in the areas of Colonial Period archaeology, historical archaeology, ethnohistory and Colonial Mexican history at both the graduate and undergraduate levels. The successful applicant will develop a graduate program in historical archaeology, have a record of research in the same field, and should be capable of supervising graduate students pursuing historical archaeology elsewhere in the Americas. She or he will participate in the University's Latin American Studies program. It is desirable that the applicant be able to teach undergraduate courses in Mesoamerican prehistory. Ph.D. must be completed by start of appointment. The University of Calgary is committed to employment equity. The appointment will commence July 1, 1998. Applicants should send a letter of application, curriculum vitae, and the names of three referees, by February 1, 1998 to Nicholas David, Acting Head, Department of Archaeology, The University of Calgary, Calgary AB T2N 1N4 Canada, (403) 220-4858.

Skelly and Loy, Inc., an environmental consulting firm, has immediate openings for cultural resource professionals at the Principal Investigator and Field Director levels. Projects include Phase I/II survey and data recovery at prehistoric and historic archaeological sites. Applicants for Principal Investigator and Field Director must meet the Secretary of Interior's Standards and Guidelines, and must have a minimum of two years' professional experience on cultural resource management projects. Strong organizational, technical, and writing skills are a must. Applicants must be flexible and able to work well as part of a team. Skelly and Loy offers competitive salary, benefits and advancement opportunities. Send current résumé, list of at least three recent references, and date of availability to Skelly and Loy, Inc., 520 Seco Rd., Monroeville, PA 15146. Qualified minority and/or female applicants are encouraged to apply. EOE/M/F/V/H. No phone calls.

The Department of Anthropology at the University of Illinois, Urbana-Champaign, seeks an archaeologist specializing in the prehistoric peoples of North America. Regional research focus and time period within North America are open. Topical and theoretical expertise should complement existing faculty strengths. This is a full time position at the rank of tenure-track Assistant Professor or tenured Associate Professor. The appointment begins August 21, 1998. Duties will include standard faculty responsibilities for research, teaching, and service. An active program of field research is desired. Additional qualifications include having Ph.D. in hand, publications, and demonstrated excellence in teaching. Our interests in teaching include courses in the areas of candidate's expertise, general archaeology, and a field school. Scholarly excellence is our primary criterion. Salary is open depending upon qualifications. To assure full consideration applications should be received by February 6, 1998. Send vita, samples of publications, a concise statement of research and teaching interests, and the names, addresses (including email), and telephone numbers of four referees to Janet Dixon Keller, Head,
Cornell University Department of Anthropology invites applications from archaeological anthropologists for a tenure-track faculty position at the level of assistant professor. Most importantly, we seek a scholar (Ph.D. in hand) whose work combines conceptual innovation, analytical rigor, and substantial research, whatever the geographical or topical specialization. Secondarily, we seek candidates whose interests complement or supplement those of the members of our department in interesting ways. We anticipate that the position will be offered to an anthropologically trained archaeologist whose work transcends subfield boundaries. Applications should include a letter summarizing research record, scholarly interests, and teaching qualifications; a curriculum vitae; and the names and addresses (including telephone and email) of three referees. Cornell is an equal opportunity, affirmative action employer; women and minority members are strongly encouraged to apply. Materials should be sent to Chair, Search Committee, Department of Anthropology, McGraw Hall, Cornell University, Ithaca, NY 14853. The closing date is January 15, 1998.
CALENDAR

January 15, 1997
is 1,866,544 days since
the Maya zero date

February 27-March 1, 1998
Transition from Prehistory to History in the Southwest will be held in Albuquerque, N.M. It will include perspectives from both historians and archaeologists focusing on current research, synthetic presentations, and theoretical perspectives from the southwestern United States and northern Mexico. Results will be published. For more information, please contact Deni Seymour, 2301 Yale Blvd. S.E., Suite B2, Albuquerque, NM 87106, (505) 246-2606, email djslmas@aol.com, or Patrick H. Beckett, 317 N. Main, Las Cruces, NM 88001, (505) 524-8471.

February 28-March 1, 1998
26th Annual Midwest Conference on Andean and Amazonian Archaeology, Anthropology and Ethnohistory will be held at the University of Illinois at Urbana-Champaign. For information, please contact Helaine Silverman, Department of Anthropology, University of Illinois, Urbana, IL 61801, email helaine@uiuc.edu.

March 6-7, 1998
21st Midwest Mesoamericanists Meeting will be held at Michigan State University, East Lansing, Michigan. If you have any questions, or if you are not on the mailing list and wish to be added, please contact Helen P. Pollard, Department of Anthropology, 354 Baker Hall, Michigan State University, East Lansing, MI 48824, (517) 353-3135, fax (517) 432-5935, email helen.pollard@ssc.msu.edu.

March 13-14, 1998
The Caddo Conference will be held in Arkadelphia, Ark. Suggestions for program activities and events are welcomed. Program chair is Meeks Etchieson, U.S. Forest Service, P.O. Box 1270, Hot Springs, AR 71902, (501) 321-5252, fax (501) 321-5382. Arrangements chair is Ann M. Early, (870) 246-7311, fax (870) 230-5144.

March 21, 1998
Symposium on Ohio Valley Urban and Historic Archaeology will meet at historic Riverside, the Farnsley-Moreman Landing, Louisville, Ky. For information, please contact Kit W. Wesler, Wickliffe Mounds Research Center, P.O. Box 155, Wickliffe, KY 42087, (502) 335-3681, email Kit.Wesler@murraystate.edu.

March 25-29, 1998
63rd Annual Meeting of the Society for American Archaeology will be held in Seattle at the Washington State Convention and Trade Center and the Sheraton, Seattle.

April 1-4, 1998
67th Annual Meeting of the American Association of Physical Anthropologists will be held at the Salt Lake Hilton, downtown Salt Lake City, Utah. For program information, please contact Clark Larsen, Research Laboratories of Anthropology, Alumni Bldg., CB# 3120, University of North Carolina, Chapel Hill, NC 27599-
April 8-11, 1998
**1998 Society for California Archaeology Annual Meeting** will be held at the Hyatt Islandia Hotel in San Diego (800) 233-1234. Symposia and workshops will explore diverse subjects including archaeological education and public outreach, Native American issues, Late Holocene cultures on the California coast, industrial archaeology, zooarchaeology, and southern California desert prehistory. For information, contact Michael Sampson, California State Parks, 8885 Rio San Diego Dr., Suite 270, San Diego, CA 92108, (619) 220-5323, email msampson@parks.ca.gov.

April 17-18, 1998
**SIU/CAI 15th Annual Visiting Scholar's Conference** will be held at Carbondale, Ill. The theme is "Perishable Material Culture in Archaeological Research." Deadline for abstracts is December 31, 1997. For more information, see [http://www.siu.edu/~cai](http://www.siu.edu/~cai), or contact Penelope Drooker, Center for Archaeological Investigations, Faner 3479, Mailcode 4527, Southern Illinois University, Carbondale, IL 62901-4527, (618) 453-5032, fax (618) 453-3253, email pdrooker@siu.edu.

May 1-3, 1998
**82nd Annual Meeting of the New York State Archaeological Association** will be held at Bonnie Castle Resort Hotel, Alexandria Bay, New York. The conference theme is St. Lawrence River archaeology. Although the modern U.S.-Canadian border did not exist in prehistory, its presence has nonetheless had a significant impact on the way we interpret the culture history of the valley. It raises the question whether the cultural complexes we use are really objective constructs, or whether they are more influenced by the border and the limits that it places on research. For additional information, contact Tim Abel, Program Chair, at P.O. Box 81, Philadelphia, NY 13673, (315) 642-0202, email abeltj@northnet.org.

May 18-22, 1998
**Third World Congress on Mummy Studies** will be held in Arica, Chile. The congress hopes to create an agreeable atmosphere for multidisciplinary discussion between bioanthropologists, archaeologists, ethnohistorians, cultural anthropologists, physicians, and geneticists, focusing on such topics as conservation, scientific methodologies, paleopathology, archaeology, mummification practices, and mortuary rituals. For information, please contact Calogero M. Santoro, Third World Congress of Mummy Research, Departamento de Arqueología y Museología, Universidad de Tarapacá, Casilla 6-D, Arica, Chile, (+56-58) 20-5551/5553, (fax) (+56-58) 20-5552, email csantoro@vitor.faci.uta.cl.

July 20-24, 1998
**XII Simposio de Investigaciones Arqueológicas en Guatemala** will be held in the Museo Nacional de Arqueología y Etnología. Those wishing to participate are invited to submit abstracts by February 13, 1998, to Dora de González, Museo Nacional de Arqueología y Etnología, Edificio 5, La Aurora Zona 13, Guatemala, Central America.

August 2-8, 1998
**IV Congreso Internacional de Mayistas** will be held in Antigua, Guatemala, having as its theme "Maya Identity." Proposals for roundtables, symposia, and talks will be accepted until January 30, 1998. Material is to be sent to Ana Luisa Izquierdo, Centro de Estudios Mayas, Instituto de Investigaciones Filológicas, Circuito Mario de la Cueva s/n, Ciudad Universitaria, 05410, México D.F., (+525) 622-7490, fax (+525) 665-7874 or 622-7496, email eem@servidor.unam.mx.

September 5-7, 1998
**15th Biennial Meeting of the American Quaternary Association (AMQUA)** will be held in Puerto Vallarta, Mexico. For additional information, contact Socorro Lozano Garcia, Instituto de Geología, Universidad
October 1-4, 1988

**10th Mogollon Archaeology Conference** will be hosted by Western New Mexico University Museum in Silver City, N.M. The deadline for abstract submission is September 1, 1998. For additional information, please contact Cynthia Ann Bettison, conference organizer and program chair, Western New Mexico University Museum, P.O. Box 680, Silver City, N.M. 88061, (505) 538-6386, email bettisonc@iron.wnmu.edu.

October 4-10, 1998

**El V Congreso de las Asociación Latinoamericana de Antropología Biológica y el VI Simposio de Antropología Física "Luis Montane"** will be hosted by the Sociedad Cubana de Antropología Biológica, the Museo Antropológico Montane, and the Catedra de Antropología from the Universidad de La Habana, Cuba. For more information, contact Antonio J. Martinez Fuentes, Secretario, Asociación Latinoamericana de Antropología Biológica, Museo Antropológico Montane, Facultad de Biología, Universidad de La Habana, Calle 25 #455, entre J e I. Vedado, Ciudad Habana 10400, Cuba, (+537) 32-9000/79-3488, fax (+537) 32-1321/33-5774, email montane@comuh.uh.cu.

October 14-17, 1998

**56th Annual Meeting of the Plains Anthropological Conference** will be held at the Radisson Inn, Bismarck, N.D. For more information, please contact Fern Swenson, State Historical Society of North Dakota, 612 E. Blvd. Ave., Bismarck, ND 58505, (701) 328-3675, email ccmail.fswenson@ranch.state.nd.us.

November 2-8, 1998

**IV Jornadas de Arquelogía de la Patagonia** will be held at Río Gallegos. The deadline for abstracts is September 30, 1998. For information, contact IV Jornadas de Arquelogía de la Patagonia, INAPL, 3 de Febrero 1370 (1426), Buenos Aires, Argentina, (+541) 783-6554, fax (+542) 783-3371, email rafa@bibapl.edu.ar.

November 19-22, 1998

**The Inter-Congress Meeting of UISPP Commission for Data Management and Mathematical Methods in Archaeology** will be held in Scottsdale, Ariz. For information, please consult our web page http://archaeology.la.asu.edu/uispp, or contact George Cowgill, cowgill@asu.edu, or Keith Kintigh, kintigh@asu.edu, Dept. of Anthropology, P.O. Box 872402, Arizona State University, Tempe, AZ 85287-2402.

January 10-14, 1999

**World Archaeology Congress 4** will be held in Cape Town, South Africa. The theme is "Global Archaeology at the Turn of the Millennium." For more information, please contact Carolyn Ackermann, WAC4 Congress Secretariat, P.O. Box 44503, Claremont, 7735, South Africa, +27 (21) 762-8600, fax +27 (21) 762-8606, email wac4@globalconf.co.za, web http://www.globalconf.co.za/wac4.