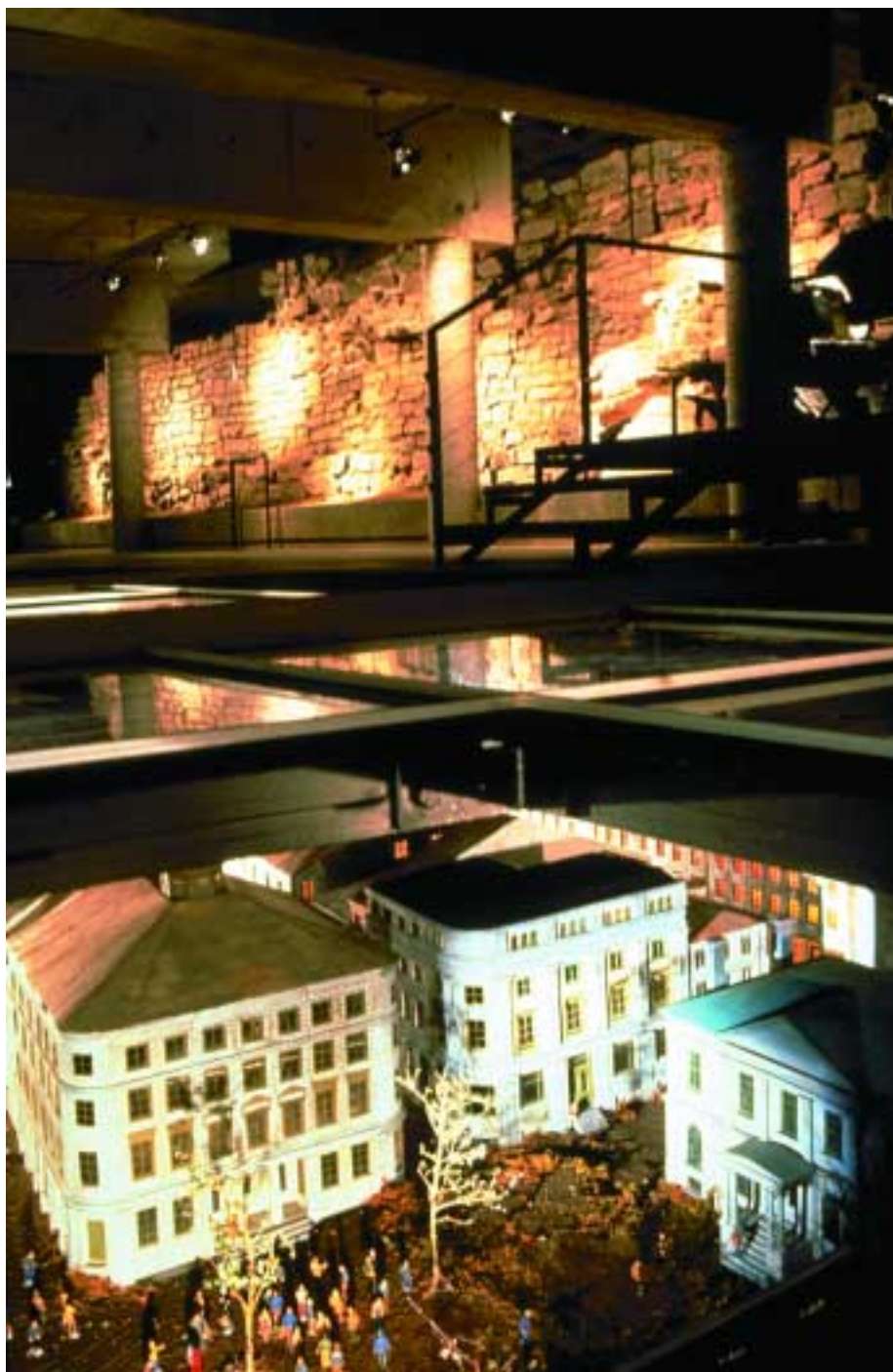


the SAA archaeological record

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SOCIETY FOR AMERICAN ARCHAEOLOGY



Archaeological Crypt—Pointe-à-Callière, Montréal Museum of Archaeology and History. © Pointe-à-Callière, Montréal Museum of Archaeology and History, Roderick Chen.

**69TH ANNUAL MEETING
31 MARCH–4 APRIL, 2004
MONTRÉAL**

the SAA Archaeological record

The Magazine of the Society for American Archaeology

VOLUME 4, NO. 1

JANUARY 2004

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Teams from the Rhode Island Forensic Archaeology Recovery unit sieve deposits recovered from the West Warwick Nightclub Fire in February 2003. Photo courtesy of Richard Gould, Department of Anthropology, Brown University.



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EDITOR'S CORNER

John Kantner

John Kantner is an assistant professor of anthropology at Georgia State University.

Preservation vs. Self-Interest

Fifteen years ago, at the end of my undergraduate career, I spent a year in Central America that included several months of archaeological work in the highlands of Costa Rica. Surveying the steep ridges, denuded by cattle and coffee farming, I was dismayed to discover that every single pre-Contact site, the vast majority of which were graves, had been pothunted. People there told me that this had happened many years before by local farmers looking for antiquities to sell. Although my head was full of classroom learning on the value of a country's cultural heritage, I felt tremendous ambivalence—on the one hand, I felt an obligation to impress upon my hosts the importance of the preservation and value of archaeological resources. But I also was confronted on a daily basis by the poverty of the local farming families, whose livelihood from their coffee harvests was supplemented with the occasional sale of a piece of their cultural heritage. Who was I—a comparatively wealthy American from an expensive, liberal-arts, cheap-coffee-drinking college—to judge them?

Among a diverse selection of outstanding articles, this issue includes four contributions that broach some of the issues that I confronted—and ultimately left unresolved—many years ago in Central America. Warren Church considers questions of preservation, tourism, and cultural patrimony in Peru, while Nadia Tarzi examines the tremendous challenges facing archaeologists in Afghanistan, an example of a country recovering from war and the accompanying destruction of archaeological resources. Looking at plantation archaeology in Mexico, Allan Meyers discusses the difficulties in preserving historic sites in a country rich with pre-Contact ruins that attract the most attention. In his article on the archaeology of the Dominican Republic, James VanderVeen directly considers the agenda of archaeologists compared with those of other “claimants” to a country's archaeology, ultimately challenging us to consider how solid our moral high-ground really is. As I discovered during my survey work in Costa Rica, the issue of preservation is rarely uncomplicated.

The Archaeology of American Ethnicity

We are organizing a thematic issue for September 2004 on the Archaeology of American Ethnicity—the deadline for submissions will be August 1, 2004. This issue will consider archaeological research on the historical development of contemporary ethnic groups in the Americas, including topics ranging from African slave plantation archaeology, to research on Irish enclaves in New York City, to the archaeology of Chinese immigrants in California. If you would like to contribute, or if you have ideas for future themes, please email me at kantner@gsu.edu or call (404) 651-1761. ☐



IN BRIEF

Tobi A. Brimsek

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

"Firsts" at the Montreal 2004 Annual Meeting

March 31–April 4, 2004 promises to be an incredible and memorable 69th gathering of the Society for American Archaeology. There are several "firsts" at this meeting:

THE PRESIDENT'S INVITED FORUM

As described by President Lynne Sebastian, "One of the things that is sometimes missing from the SAA Annual Meeting is an opportunity for us to come together as a profession to think about and debate the Big Ideas. Beginning this year in Montreal, there will be a President's Invited Forum, held during meeting prime time with no competing sessions, in which major figures in the discipline of archaeology will be invited to discuss and debate one of the Big Ideas of the day."

This year's topic is *Cultural Transmission, Evolution, and the Practice of Archaeology*. Participants: Robert Bettinger, Stephen Shennan, and Michael Schiffer. Be sure to set aside Thursday morning, April 1, 2004, 11:00 am to 12:00 pm, for what promises to be a major new event at the SAA Annual Meeting.

THE ETHICS BOWL

"More exciting than the Rose Bowl; warmer than college hockey's 'Frozen Four'; more cerebral than the NCAA 'Sweet Sixteen.' Don't miss the SAA Ethics Bowl in Montreal—the premier intercollegiate competition in archaeology!" *Lynne Sebastian, SAA President*

The Ethics Bowl, a festive debate-style competition that explores the ethics of archaeological practice, is scheduled for Thursday, April 1, 2004, 1:00–3:00 pm in the Palais des Congrès. Hope to see you there.

Need More Information?

For a complete picture of the dynamic 69th Annual Meeting, check out the preliminary program, which was mailed in late December to over 9,000 archaeologists. Don't want to wait for snail mail? Take a shortcut and view the PDF file of the preliminary program posted at <http://www.saa.org/meetings/prelimprogram.pdf>.

Presenting at the 69th Annual Meeting?

Just a reminder for those presenting at the meeting, Board policy requires the following equipment in each session room:

- a 35mm carousel slide projector with wireless remote control—*Presenters must provide their own carousel trays; 80-slide trays are recommended to prevent jamming.*
- one overhead projector
- one screen
- a laser pointer
- a countdown timer

A special pricing arrangement has been made with SAA's audiovisual provider, AVW TELAV, at the Palais des Congrès for those individuals who would like to order and pay for LCD projectors. AVW TELAV is offering the projectors at the rate of \$250CDN plus taxes (\$37.57CDN) for a four-hour period (Total cost: \$287.57CDN). Please note that should you go over the four hours **at all**, you will be charged the full-day rate. At the current exchange rate (on 11/24/03), the \$287.57CDN equals \$220.82U.S.

If you are interested in arranging for an LCD projector, you may contact Stephane Benoit at the Palais des Congrès by phone (514) 868-6655 or email benoit@avtelav.com. You will not be able to finalize your arrangement until the final program is available and your session room assignment is made. All payment arrangements must be made directly between you and AVW TELAV. If you have any questions, please contact SAA's executive director, Tobi Brimsek, via email tobi_brimsek@saa.org or phone at the Society's headquarters (202) 789-8200.

The Best Deal in Montreal...Thank You Sponsors

Due to a phenomenal expression of support from sponsors, the cost of the Roundtable Lunch in Montreal (Friday, April 2, 2004) is **\$3.95, the lowest ever!** (Where can you get lunch and a wonderful hosted discussion for \$3.95?) There are 162 seats at 18 hosted tables with a broad range of fascinating topics. Register for this event early. SAA would like to extend its sincere grati-

➤ IN BRIEF, continued on page 4

LETTER TO THE EDITOR

Increasingly, archaeological publications include phrases such as “southwestern archaeology”—in which place names, in adjective form, are not capitalized. The SAA’s style guide (Section 3.3.9, “Capitalization”) calls for the consistent capitalization of place names. The editors of *American Antiquity* and *The SAA Archaeological Record* have informed me that they support capitalization of these words. As a group, the more literate of my professional acquaintances are puzzled by the failure to capitalize. So why is the trend to non-capitalization continuing, even spreading?

The proximate cause is, I believe, copy editors not steeped in the traditions and usages of archaeology. I place the blame, however, on *The Chicago Manual of Style*, a reference work so valuable that even its rare mistakes are slavishly imprinted on books and journals. My reason for denouncing such an august institution is its discussion of “Geographical and Related Terms” (Section 7.36), in the most widely used edition (and the SAA standard): its 14th. The current guidance is messy and confusing, and thus as bad as no advice at all.


Good style is based on good rules, in this case as in all others. When a geographical term involves the name of a place (even if that place is a large region), the term is capitalized. If the geographical term involves a direction, the term is not capitalized. Thus, “tracts extended from northeast to southwest” and “the Southwest” (meaning the North American Southwest) are both correct. This rule also applies to adjective forms. Thus, “the southwest part of the site” but “Southwest archaeology” (meaning the archaeology of the North American Southwest).

Most copy editors do not read *The SAA Archaeological Record*, so I urge archaeologists to be aware of this edito-

rial briar patch and the easy way out of it. If you encounter resistance, gently but firmly remind your editor that this is not the first time the *Chicago Manual* has dropped the ball on geographical terms. Some of us are old enough to remember that guide’s former insistence on mixed capitalization of combined place names, as in “the Mississippi and Missouri rivers.” The current edition *now* calls for capitalization of all parts of those terms, as in “the Mississippi and Missouri Rivers” (Section 7.43). For those who do not speak Manuaese, saying “now” is as close as the *Chicago Manual* will ever come to admitting its error.

Note my use of “Southwest archaeology.” “Southwestern” is an adjective form of “southwest,” but so is “southwest”—along with “southwesterly,” “southwestward,” “southwestwardly,” and “southwestwards.” Similar options exist for other points of the compass. Given those options, “Southwestern” should not be imposed by copy editors simply because it sounds more “adjectival” than “Southwest.” Again, I do not blame the copy editors, whom I view as an important and vastly underappreciated part of society. Editors must have standards to follow. If we do not help provide those standards, based on our own traditions and usages, we bear the ultimate blame for resulting lapses of style.

David A. Phillips, Jr.
Curator of Archaeology
Maxwell Museum
Albuquerque, New Mexico

IN BRIEF, from page 3 

tude to our sponsors who have made this event possible:

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ARCHAEOPOLITICS

David Lindsay

David Lindsay is manager, Government Affairs for the Society for American Archaeology.

Congress Attempts to Rein in Outsourcing

Back in May, I wrote about how the Administration had made a priority of reducing the number of federal government employees by “outsourcing” functions that it believes could be more efficiently performed by the private sector. The Department of Interior was a focal point of the effort, with the offices in the National Park Service’s Archaeology and Ethnography program identified as eligible for study. For three years, the White House has had an almost unlimited ability to pursue its objectives in this area, but this fall, Congress stepped in to gain some control over the process. What resulted was an interesting study in how Congress and the White House engage in give and take over an issue.

In order for a function deemed “non-governmental” to be outsourced, a cost-benefit analysis study (known as the “A-76 process,” after an Office of Management and Budget circular) has to first be completed. The analysis compares the costs to deliver services by federal employees with the costs of doing the same tasks through private-sector sources. Some functions, deemed “inherently governmental,” are exempt from the process, but the Administration decided in 2002 that at least some aspects of the archaeological functions carried out by its staff archaeologists were not inherently governmental.

During the summer, however, Congress began to express numerous concerns about the initiative. In two hearings held in July, members of the Senate Energy and Natural Resources Committee and Governmental Affairs Committee told Administration witnesses that Congress had many reservations about the Administration’s actions, such as whether or not the functions selected by the Administration for study were truly “non-governmental,” whether or not the A-76 process itself was fair and effective, the fact that the Administration had never specified funding amounts to conduct the studies, and the non-transparent way in which the studies were being conducted, in that there appeared to be little to no feedback to Congress on the progress of the initiative, nor little opportunity for the public or

affected government personnel to comment on the process. Also of major concern to members of Congress was the effect on morale that the process was having on federal employees.

SAA testified at one of these hearings on its concerns with the outsourcing issue. You can access the testimony at <http://saa.org/government/sourcing.html>.

Congress takes very seriously its management and oversight responsibility of the various departments and their programs, and views with reservation any executive-branch effort to undertake significant changes in the structure of the federal workforce without congressional approval or input. This fall, it became apparent that Congress, though not opposed to competitive sourcing per se, was going to try and put the Administration’s program on a path more to its liking. To accomplish this, Congress used the most effective of legislative vehicles—the annual appropriations bills.

The Department of Interior appropriations bill for fiscal year 2004 became ground zero for competitive sourcing provisions, because much of the Administration’s focus had been on agencies within that department. To address the concern over how much money was being spent on the studies, Congress required in the bill that a total of \$2.5 million can be spent in FY04 on sourcing studies. To alleviate the problems of transparency and congressional oversight, the bill required the Administration to compile detailed reports on the studies so far completed and the ones to be launched in FY04. With regards to ensuring that the public gets the most for the money spent on the studies, the bill mandated that “Each competitive sourcing study...must be based on a most efficient and cost effective organization plan” and that a function can be outsourced only when it results in savings to the taxpayer of ten percent of the program cost or \$10 million, whichever is less.

The Interior bill only covers the Department of Interior’s opera-

➤ ARCHAEOPOLITICS, continued on page 40

DISASTER ARCHAEOLOGY AT THE WEST WARWICK, RHODE ISLAND NIGHTCLUB FIRE SCENE

Richard A. Gould

Richard A. Gould is a Professor of Anthropology at Brown University and Team Leader for RI Forensic Archaeology Recovery (FAR).

During the year following our trial forensic recovery excavations at the World Trade Center site (WTC) in New York (*The SAA Archaeological Record*, November 2002), our volunteer team continued its training and recruitment. The group's goal was to take the lessons learned from its New York experiences and be ready to apply them effectively in any mass-casualty disaster that might occur in the New England and Northeast Corridor region. Special efforts were made to build close working relationships with local and state authorities that would, we hoped, lead to a timely call-up of our group in such an event. We acquired a name, Forensic Archaeology Recovery (FAR).

As before, FAR's primary goal continued to be to assist the authorities at mass-casualty scenes in finding, recording, and recovering personal effects and human remains for purposes of victim identification and for the return of these items to victim's families. FAR's earlier efforts at the WTC, while too late to be conclusive, proved that it was possible for archaeologists to achieve useful results. Now, right in its own tiny home state, Rhode Island FAR was about to be put to the test.

A Bell in the Night

Shortly after 11:00 pm on February 20, 2003, a fast-moving fire destroyed "The Station" Nightclub in West Warwick, Rhode Island (RI), killing 100 people and leaving many others horribly burned and injured. Within 24 hours, members of the national Disaster Mortuary Operations Team (DMORT) were en route to Providence to assist the RI State Medical Examiner's staff with victim identifications (*Providence Journal*, February 23). This was DMORT's first deployment under the authority of the Office of Homeland Security, and it was also my first deployment as a member of DMORT. Five DMORT victim-identification stations were set up, and teams worked around the clock in 12-hour shifts, performing autopsies and matching victims' clothing, personal effects, and other diagnostic elements with descriptions provided by families and friends. In three days, all fire victims were identified, although

the process of recording and documentation by DMORT continued.

On February 25, near the end of my third day with DMORT at the Medical Examiner's Laboratory, I received a call from the RI State Fire Marshal's Office activating FAR. After receiving an early release from DMORT, I alerted our volunteers. On the following day, I met with the authorities at the West Warwick Police Station, followed by a two-hour site visit with Irving Owens, the RI State Fire Marshal. By this time, firefighters and other first responders had pulled down most of the nightclub's standing structure. The West Warwick Police were completing their site plan using a total station. An ATF (Federal Bureau of Alcohol, Tobacco, and Firearms) team was also excavating and sieving debris from the area close to the nightclub stage where the fire originated, with special attention to remains of pyrotechnics used by the band, "Great White," that appeared to be the primary source of ignition.

Since victim identifications were already completed, FAR's task at the West Warwick Nightclub Fire scene was the location, recording, and recovery of the victims' personal effects. These items were to be entered as evidence and transmitted to the RI State Medical Examiner's Office for repatriation to the victims' families. This was our stated goal—especially when the press and media were present. The State Fire Marshal took me aside, however, and informed me that after crime-scene tapes are removed from the scene at a major fire, investigators hired by lawyers and scavengers often swarm over the site and remove almost everything they can—including human remains. This meant that a thorough recovery of human remains by FAR was needed as well. After matching ante- and post-mortem evidence during my stint with DMORT, I already had some indications of items that were missing from the post-mortem assemblages and might be present at the site.

For most agencies involved at the West Warwick Nightclub Fire scene, FAR was new and unfamiliar. As in New York a year earlier, the idea that archaeologists could provide a useful



Figure 1: The author, who serves as Team Leader for the Rhode Island Forensic Archaeology Recovery unit, is dressed in level-1 HAZMAT protective clothing.

service under such chaotic conditions was met with skepticism. The copies of FAR's recently prepared Protocol that I distributed, however, helped to establish our role at the site. The team arrived on site at 8:00 am on February 27. Each day began with a briefing, and there was a short debriefing later in the day. All movements of personnel in and out of the site and the presence and positioning of all resources were recorded on standard forms used by the U.S. national emergency disaster plan, known as the Incident Command System (ICS). FAR's Protocol and standard operating procedures are fully consistent with ICS, which is part of FAR's regular training in addition to chain-of-custody and HAZMAT awareness.

Every FAR volunteer working on the fire ground (the "hot zone") was required to wear level-1 HAZMAT protective clothing (Figure 1). This included a full-body Tyvek suit, an N-95 face mask (to protect against particulates), steel-toed boots, latex or purple nitrile gloves underneath work gloves, clear-plastic goggles, and a hard hat. Tyvek suits, face masks, and gloves are intended for one-time use only and were discarded

after each shift. Respirators to protect against chemical hazards in the air were also available but were not needed. As in our earlier deployment to the WTC in New York, a dedicated Safety Officer and a Medical Officer were present whenever the team was at work. A total of 23 FAR volunteers worked at the West Warwick Nightclub Fire scene from February 26 through March 9, when we closed the site investigation and removed the crime-scene tapes. Of these, 12 were trained field archaeologists (mainly graduate students from Brown University), and eight were members of the Bureau of Criminal Identification (BCI) of the Providence Police.

The community support for our efforts was wonderful. The RI Salvation Army Emergency Disaster Services, with whom FAR has a Memorandum of Understanding (MOU), provided a hot meal along with coffee and snacks from one of its mobile canteen trucks and made expert counseling available. The Red Cross provided a heated tent and breakfast—coffee and doughnuts, muffins, etc. donated by Dunkin' Donuts. The Providence Police and the State Fire Marshal's Office provided additional Tyvek suits and other supplies as ours were used up. The RI State Police parked their Mobile Crime Laboratory in the "cold zone" at the site, which meant that all evidence found at the scene could be entered directly into custody. Site security was provided by the RI State Police, who also managed crowd control as mourners, visitors, and media from all over the U.S. and overseas converged on the site.

The Recovery Begins

By the time FAR arrived, the transition from the rescue to the recovery phase had been completed. Although much of the initial chaos at the disaster scene had been resolved by first-responders, the scene was anything but settled. All recovery efforts took place in plain view (Figure 2). "A dozen investigators combed through the blackened remains of The Station fire site. . . . Onlookers peeked through the wire fence, covered in flower bouquets and teddy bears, as the searchers sorted dirt into bright orange buckets and paper bags. . . . Other workers sifted debris through a sieve. More than one onlooker remarked that it looked like an archaeological dig. . . . The site was quiet except for sounds of cars creeping by and a few soft sobs" (*Providence Journal*, February 28).

The overall effect was like working inside a goldfish bowl, which placed special demands on the FAR volunteers' conduct. From the beginning and throughout the recovery operation, the volunteers all worked in a calm, professional manner and remained focused on the task at hand. This was some of the toughest duty imaginable. I don't have words to describe the wonderful dedication and professionalism of the FAR volunteers, and I am not sure that my account here really does jus-



Figure 2: Sieving teams at the West Warwick, Rhode Island Nightclub Fire site were clearly visible from the fence set up to protect the scene.

tice to their efforts. In my personal opinion, the profession of archaeology has never looked better.

The first task was to set up a sieving station on bare ground off the corner of the elevated concrete floor platform of the nightclub. We then had to remove burned rubble from the entrance ramp and stairs and along the front of the floor platform to clear an access route between the excavation area and the sieves. Although it was not excavated stratigraphically, this rubble was sieved and immediately produced significant amounts of personal effects, clothing, and human remains. We originally intended to use wet sieving methods, and the State Fire Marshal's Office offered to provide water from a pumper truck. The temperature, however, stood at between -14 and -16 degrees Celsius (approximately +5 degrees F.) until March 1, when it warmed slightly. From a health and safety point of view, this made wet sieving impossible, so 1/4-inch mesh dry screens were used instead. At these temperatures, the deposits were frozen. This meant that soft tissue was sometimes well preserved and could be recovered relatively intact. Sufficient thawing occurred when materials were placed in buckets in direct sunlight to allow mechanical sieving to proceed, but hand-chipping and scraping was needed first to reduce the lumps. While many specimens were found and recorded *in situ*, we relied more heavily on sieving for recovery than originally planned. A trained forensic anthropologist on our team (Gabriel Flores) was present to ensure that no human remains were overlooked.

We had also planned to work around the clock, but safety factors intervened. The Fire Marshal had special work lights available, but we found holes in the wooden floor above the nightclub basement that posed a hazard to our volunteers. We

flagged these holes but decided that it was too risky to attempt to work at night. Under conditions imposed by a particularly severe New England winter, we found that we had to adapt our recovery methods to maintain safety. For similar reasons, we did not attempt recoveries in the piles of structure left at various places on the site. These piles were unstable and were filled with sharp metal, mainly from torn ductwork. Later we found a way to recover materials from these piles.

From the beginning, the most-often asked question was, "How long will this take?" Each agency at the scene had a different set of goals and a different timetable. Without being too blunt, the Fire Marshal and I agreed that the only appropriate response should be, "As long as it takes." In essence, we made a compact to obtain the fullest and most complete recovery possible, for the sake of the victims' families. Throughout the recovery effort, there was pressure from different sources to speed the work or to cut it short. The Fire Marshal's Office buffered us from these pressures and rallied the political support, mainly from the Governor's and State Attorney General's offices, needed to keep the work going. I hope to write a more complete account of everything that happened. My field notes and photographs, however, were subpoenaed in July by lawyers filing civil suits arising from the fire, so I am limited in what I can say. This limitation applies to the evidence FAR recovered as well, so this article should be viewed as a somewhat generalized, interim report on our activities.

Forensic Archaeology at "The Station"

The Fire Marshal's staff, as well as others I spoke with from the West Warwick Police and ATF, were generally pessimistic about how much we would find. They noted that the site had been disturbed by the first-responders and by heavy machinery tracking across it as the structure was removed following the fire. There was no soil, as such, in the site, but we discovered that there were some deposits that could be excavated stratigraphically and in a controlled manner (Figure 3). I wish I could provide a full account of the excavations. I can say, however, that the deposits were more intact and coherent than the authorities originally thought. As work proceeded, the operation assumed the character of a normal excavation, with small teams excavating systematically inside the fire ground, a bucket brigade moving continuously from the excavation zone to the sieving station, where three (sometimes four) sieves operated continuously.

In addition to photos shot over the fence of our volunteers at work, the newspapers and media speculated about our activities. We did not give interviews and tried to remain anonymous. The press identified our team anyway, and an item appeared on WPRI Channel 12 (CBS) News after we closed the site.



Figure 3: Forensic Archaeology Recovery volunteers excavate through deposits at the fire scene.

As the recovery progressed, finds were recorded using a simple system of baselines and moveable PVC-pipe squares. When a possible feature was identified, the PVC-pipe square was positioned around it and measured in from the baselines. We avoided the use of strings to mark the grid across the site, which would have interfered with other activities. Detailed feature drawings, notes, and direct measurements were made, followed by photographs and further excavations and, ultimately, removal. All items removed from the deposits were placed in marked bags, with biologicals in paper bags and non-biologicals in plastic bags or other containers. These bags were then taken to the State Police Mobile Crime-Scene Laboratory and entered into custody for delivery to the Medical Examiner's Office.

Floor features were drawn to scale. Other features were mapped in relation to these, resulting in good positional information for both intact and loose finds. One persistent question arose later; namely, how many personal objects did we recover? The official inventory of objects lists only 88 items, but this total is misleading and raises an important issue. Whenever possible, which was often, we kept materials that were bonded together in some way—for example by melting—as possible associated finds. So, for example, a wallet with a key ring fused to it would be inventoried as a single feature. The wallet, however, might contain credit cards, photographs, and other important items, and the key ring, likewise, might have keys attached (some of which had identifying numbers). In other words, the actual count of personal items was in the hundreds and represented a level of recovery that may be unprecedented from a disaster scene, relative to the scale of the event. From an archaeological perspective, the lower number reflected a serious effort to retain the physical association of items found together.

Key rings, wallets, and pockets sometimes contained “loyalty cards.” These items are a new wrinkle in forensics that were useful for victim identifications at The Station. These cards, issued to customers at many supermarket and drugstore chains, look like plastic but are made of durable materials that can survive extreme conditions. In some cases, it was possible for the Medical Examiner's staff to take these to the supermarket or pharmacy and scan the bar codes, resulting in instant identifications. The question then became the degree to which the card was associated with the victim—an issue every archaeologist will appreciate.

Numerous cell phones were recovered, too—some with the bodies of victims and others as loose finds in the deposits. Most were badly damaged, but some were still working. From messages recorded on these phones, it was sometimes possible to establish the identity of the owner. But the question of the relationship between the phone and the victim still had to be established. During my duties with DMORT, one of the forensic odontologists commented to me that, “We’ve never had an archaeologist work with us before or ask these kinds of questions.”

The Recovery Continues

FAR worked at The Station fire scene for a total of 11 days, although two days were lost due to inclement weather. The one-year anniversary of FAR's first deployment to the WTC passed while we were at work on The Station site. Two actual deployments within the span of a single year is generally exceptional for emergency-services groups. Does this mean more of the same in the future? I hope not, but from comparing our experiences at these two disaster events we have learned that it's much better to be ready ahead of time than to play “catch-up” afterwards.

The core group of archaeology graduate students began to show signs of physical and emotional exhaustion a week into the recovery and was released. They were relieved by a “scratch” team of volunteers on our roster who had worked fewer days at the site. Everyone performed brilliantly, but in stressful situations, there is an ever-present risk of volunteers pushing themselves too hard. Follow-up calls and debriefings revealed little in the way of negative after-effects among the volunteers. Nevertheless, my impression is that volunteers were stretched to the limit. As training continues, FAR will continue to expand by selective recruiting within our region to ensure a larger pool of qualified volunteers.

During my initial walk-overs of the site with the Fire Marshal and firefighters who were first-responders, I gained a picture of where the fire victims had been recovered. The general

hypothesis of our efforts became focused on the degree to which our recoveries of human remains and personal effects were correlated with this other evidence. Along with this were expectations gained from my earlier work with DMORT as to what sorts of evidence were absent from post-mortem assemblages and might be found at the site. Although practical and safety issues sometimes intervened, these goals helped to define our archaeological efforts as the recovery progressed.

Controlled archaeological recoveries began around the entrance passageway of the nightclub, where most victims died during the rush to escape. Our work expanded from this central area to include complete excavation of deposits in the rooms on either side (the club's game room and the bar/lounge area). This strategy enabled us to compare the density of remains over roughly one-third of the club's total floor space. The highest density of personal effects and human remains recovered by FAR occurred in the areas closest to the entrance passageway. Densities fell off rapidly away from this area, but there were some notable exceptions encountered later as excavations proceeded toward the rear of the club.

To gain access to floor areas at the rear, it was necessary to remove a 15-foot-high pile of structural debris, which was accomplished in half a day with a mechanical excavator/crawler. Throughout this removal, FAR volunteers were positioned to watch for recoverable items that might become dislodged. Some of the most important personal effects were found during this phase of the operation. Once cleared, FAR recoveries proceeded toward the rear areas of the nightclub (kitchen, bathrooms, offices, stage, and dance/audience floor).

Then a snowstorm arrived. In addition to using my own snow shovels, I borrowed some from my neighbors, and we removed the top cover of snow. We used brooms to brush most of the remaining snow from underlying deposits, and work resumed. Tents were provided by the Red Cross to cover the work site, but they were frozen solid and could not be unrolled. Tarpaulins, however, were used to cover parts of the site. These were shoveled and swept clear of snow and rolled back when archaeological work resumed. By then, we were at work in the rear areas of the site and in the vicinity of the stage and adjacent floor.

At this point, the nature of our work at the site began to change. The Fire Marshal asked us to watch for certain items sought in the investigation. While FAR's primary efforts remained focused on humanitarian goals involving recovery of personal effects and human remains, we also found evidence bearing on the fire. FAR's investigative role expanded in the final days, prompting many discussions—archaeology can be a

potent tool for forensic investigation at mass-casualty disaster sites, but not at the expense of the need to provide closure to friends and families of the victims. We found, however, that these goals are compatible as long as clear priorities are maintained.

When FAR closed the archaeological recovery at 4:00 pm on March 9, approximately 59% of the total floor-area of The Station nightclub had been excavated and sieved—about 2,793 out of 4,773 square feet. The areas not excavated included a wide area of spotty fill, with mostly bare floor; the area near the stage excavated and sieved earlier by ATF investigators; and the drummer's alcove (a small, elevated platform behind the stage). A total of 340 buckets (at least 136.4 cubic feet) of fill was collected and sieved, but there is no way to estimate accurately the total volume of the deposits present at start of the recovery owing to the irregular nature of the fill. Once the records of the evidence are released from custody, it may be possible to perform a volumetric analysis for personal effects and human remains recovered.

Lessons Learned at “The Station”

FAR's experiences at The Station provided new lessons about performing archaeology in the context of emergency disaster services, supplementing those learned a year earlier in New York:

- Establish contacts and conduct thorough training in advance, no matter how “alarmist” such preparations might seem. FAR's advance networking and readiness resulted in a timely call-up and excellent working relationships.
- Disaster scenes are chaotic and stressful. Controlled archaeological recovery performed in a professional manner introduces a calming effect to the scene and reassurance to the onlookers, especially to family members and friends of victims.
- Never permit any archaeological volunteer who has lost a family member or friend in the event to be present at the recovery scene.
- Issues of volunteer health and safety always trump the humanitarian and investigative goals of the work. The Team Leader must impose a risk-benefit evaluation of the efforts at the scene regularly and be prepared to act accordingly. It is the Team Leader who says “No” when the risks outweigh the benefits.
- Be ready for an incredibly emotional and prolonged aftermath.

The Aftermath

The official closing of the crime scene at The Station did not

signal the end of the disaster or of FAR's involvement with it. Much of this activity is ongoing and may affect the outcome of legal proceedings. One aspect of this post-disaster phase requires special mention and can be discussed. In the weeks that followed, the RI community was reeling from the losses generated by this tragedy—especially as revealed by testimony from survivors and families of victims at the RI State Fire Commission Hearings. These hearings led to major revisions to the state's 1968 Fire Code, which were seriously deficient (*Providence Journal*, July 7). No amount of law-making, however, could relieve the pain felt through the community.

After The Station site was cleared of all debris and structure and the fence was taken down, the owner of the land (not to be confused with the nightclub owners) offered to donate the property to the city of West Warwick, with the aim of turning it into a memorial park honoring the fire victims. While this seemed like an excellent idea to most people, the lawyers filing suits saw the land as a potential asset to be seized and blocked the donation. The site, in effect, became a vacant lot.

One day late in June—the exact date is uncertain—a neighbor heard a pounding noise at the site and went over to investigate. She found a woman there hammering home-made wooden crosses into the ground. The woman said the crosses were made from floorboards salvaged from the nightclub (*Providence Journal*, July 8). I revisited the site on July 1 and saw 100 crosses enclosing the location where the nightclub stood (Figure 4). Someone had also painted each cross a light-purple color and bestowed a string of plastic beads and a plastic butterfly on each. The following day, I began full-scale ethnoarchaeology at the site—something I had never imagined would become part of this process. By the time these crosses were reported in the press and media, I was training Randi Scott, one of FAR's community-based volunteers who lives nearby, in ethnoarchaeological recording. As streams of mourners and visitors arrived over the days and weeks that followed, we recorded changes to the memorial displays and interviewed people coming to the site. We have monitored the site almost continuously, with observational visits two to three times each week in sessions lasting from two to four hours. These site visits are continuing as the memorials expand in size and complexity. On August 20, six months after the fire, a large



Figure 4: An impromptu memorial appeared at the fire scene sometime in late June 2003, inspiring an ethnoarchaeological study as a component of disaster archaeology.

memorial gathering of survivors and victims' families and friends occurred. As I write, we have seen the regular visitation rate exceed 30 people per hour. People are leaving inscriptions, poems, photos, stuffed teddy bears, fuzzy dice, real and plastic flowers, money, food, and personal mementos of all sorts.

From our interviews, it is clear that this was a spontaneous process prompted, in part, by outrage at the failure to implement the memorial park proposal. In effect, people affected by this disaster were taking matters into their own hands. We do not know how long this process will continue or what the final outcome will be. All I can say at this point is that FAR is following events closely and keeping detailed records of material changes at the memorial site and attitudes expressed by mourners and visitors. The role of ethnoarchaeology as a component of disaster archaeology is becoming clearer.

The after-effects of this disaster are complex and may continue for years. We found this to be true at the WTC, too, and FAR has been dealing with issues arising from that disaster as well. Mass-casualty disasters, we have found, do not end when the dig is over or the crime scene is closed. Repercussions persist long after the event and may take on a life of their own. FAR's role in all this has expanded accordingly and will continue in whatever directions seem appropriate for a volunteer organization of this kind. It is still a learning experience for us all. □



ARCHAEOLOGY AND CRITICAL THINKING: EXERCISES FOR EDUCATORS

Stephen C. Saraydar

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The recent publication of *The Archaeology Education Handbook* (Smardz and Smith 2000) and *Teaching Archaeology in the Twenty-First Century* (Bender and Smith 2000) highlights the current interest in both how future archaeologists are trained for the critical job of communicating with the public and the need for curricular reform at the undergraduate and graduate levels. The combined content of these volumes makes it clear that archaeology's future is riding on the success of efforts to educate and engage the public. While archaeologists can (and must) work to advance their cause by reaching out directly to younger students and interested laypersons, a liaison with elementary and secondary school teachers will provide the greatest return on investment in light of the number of students each teacher will influence over the course of a career.

Being Logical

One area in which archaeologists can be of considerable value to elementary and secondary school teachers is in efforts to improve students' critical thinking skills. Given the central position occupied by critical thinking in curriculum standards today (Davis 2000:60), it would seem reasonable to expect that students who have followed a science track in high school would enter college armed with an understanding of the reasoning processes that guide research design and interpretation of data. Many do not. We should all find this troubling, not so much because of the time that must be expended to bring them "up to speed" on the subject, but because the ability to approach and solve problems as scientists do is important in everyday life, where it serves us well in our efforts to make intelligent decisions concerning the many claims and options that present themselves as we navigate through a typical day. But for all too many people, discriminating between sound and unsound reasoning presents a challenge.

Matthews (1994:88–93) confirms the distressing conclusions reached independently by many teachers at the high school and college levels regarding the inability of the average student to evaluate the validity of even simple arguments. He cites five independent and convincing studies that point consistently to the failure of students (grades 9–12, undergraduate, and graduate) as well as many teachers to reason soundly and recognize fallacious reasoning when they encounter it, in both science problems and everyday situations. Areas of weakness include assuming that events that follow from others are caused by them, drawing conclusions on the basis of nonrepresentative or an insufficient number of instances, and imputing causal significance to correlations. Matthews's response to this sorry situation is to call for the integration of formal and informal reasoning in science courses. Specifically, he recommends that students should at least be trained to recognize and avoid common forms of fallacious reasoning such as affirming the consequent (If P then Q. Q, therefore P), denying the antecedent (If P then Q. Not P, therefore not Q), and asserting an alternative (P or Q. P, therefore Q). Archaeology seems espe-

cially well suited to providing teachers and their students with interesting and memorable lessons in reasoning that carry with them the added benefit of teaching about the past, how we come to reconstruct it, and why we need to conserve archaeological resources.

Lessons from Artificially Constructed Sites

A key to expanding archaeology's presence in the classroom lies in helping teachers develop innovative ways to meet existing curriculum standards rather than trying to convince them to add more to what they're already required to cover. I have had success with a variety of exercises designed to address weaknesses in reasoning. One keyed to the problem of drawing conclusions on the basis of nonrepresentative samples is built around nothing more than collections of potsherds—objects that teachers and students usually find more interesting than equally well-suited but more commonplace items such as marbles. The most positive responses have come from exercises associated with artificially constructed sites. The activities that lead to formation of these sites are “real” in the sense that objects are not just placed in a pit for others to dig up; rather, meaningful sets of activities are performed so that there really are past behaviors to reconstruct (e.g., simple stone tools are made and used to butcher an animal that is then cooked over a wood fire. Or, for a less-gruesome scenario with a more contemporary flavor, chickens from the local supermarket are cooked on a grill set over a pit with a charcoal fire and a variety of traces reveal the presence of soft drinks, hot dogs, potato chips, paper plates, and other items). These activities are videotaped and the site is photographed before being covered. After the students excavate, analyze their finds, and present their site reports, they view the video of the site-formation activities and reevaluate their interpretations.

This particular type of exercise is enjoyable for participants and easily adapted to different grade levels and a variety of pedagogical purposes (see Chiarulli et al. 2000 for a variation). It is especially useful for helping students to think critically about how they reason, while also providing them with firsthand knowledge of the means by which we come to know the past through archaeology. Because archaeology by its very nature requires working from results (Q), back to causes (P), avoiding the fallacy of affirming the consequent (what philosopher C. S. Peirce termed an “abduction”) requires the acquisition of corroborative evidence to establish the validity of any hypothesized explanation. By forcing students to reason “backwards,” artificially created sites provide challenging real-world problems to solve in which the processes by which sound arguments are constructed are highlighted.

A Path Forward

Exploring the potential of exercises based on archaeological materials and situations to aid in developing critical-thinking skills and meeting specific New York State standards in the sciences and humanities is the focus of a soon-to-be initiated program for K–12 teachers at SUNY Oswego. The lesson plans,



Figure 1: Liz Kalisiak and a fellow student in the introductory methods course experiment with simple flake tools they have made. They later smashed several bones to extract marrow. The remains of these activities were carefully covered with soil and then excavated and analyzed by students in the following semester's class.

teachers' subsequent experiences using the new material in their classrooms, and other results of this program will be available through a web-based resource center that will include discussion pages for participants and others who wish to share ideas.

With critical thinking at the core of the program, we hope to demonstrate to teachers that archaeology is much more than an interesting subject. Our goal is to demonstrate its broad relevance to education in the sciences and humanities and its usefulness for teaching students about cultures other than their own. Archaeology's versatility as an educational tool is exceptional. It's time to demonstrate that to the wider world. 📷



Figure 2: Oswego's indoor dig and experimental archaeology facility will soon be completed. It will add flexibility to the program by allowing year-round site creation and excavation as well as a variety of other teaching and research activities. When completed, the platform will be covered with artificial turf. Here teaching assistant Dawn Lawrence is preparing a site for students to explore in the spring semester 2004.

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A CONTINENTAL PERSPECTIVE FOR NORTH AMERICAN ARCHAEOLOGY

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In this essay, we explore the importance of a continental perspective for North American archaeology. We do so by considering an intriguing question: Why are there Mexican sumptuary objects at Chaco Canyon and none at Cahokia? Chaco and Cahokia were contemporary with each other and with the Mesoamerican Late Post-classic, a politically and economically dynamic period. The two sites are at comparable distances from central Mexico (Figure 1) and were similar in many ways; but Chaco is much smaller, in almost every useful dimension, than Cahokia. It is no exaggeration to say that Chaco, archaeologically, pales in comparison to Cahokia; yet Chaco is relatively rich with Mexican artifacts, while none have been found at Cahokia. These patterns are of inherent interest, but we discuss them here because they suggest the potential importance of a continental perspective for North American archaeology, particularly as practiced within the United States.

Our essay is not meant to be definitive. Rather, we present concepts and frameworks for discussion, knowing that many readers will reject our ideas in part or in whole. We do this because we sincerely believe that the issues are of importance to American archaeology and to other disciplines looking to American archaeology for data, theory, and methods of analysis. For example, "global history" is an emerging genre in popular and academic history. The term means more than single-volume chronicles of civilizations and regions; rather, global history suggests that the world itself has a history of interconnections and linkages among its regions and civilizations.

Why global history, now? The recent millennium and (more importantly) globalization re-focuses attention on very large scales in human history. The breadth of interest in global history is attested by recent books such as Jared Diamond's *Guns, Germs and Steel* (Norton, New York, 1999), Felipe Fernandez-Armesto's *Civilizations* (Touchstone, New York, 2002), and John R McNeill and William H. McNeill's *The Human Web* (Norton, New York, 2003). These works share a common theme: ancient and deeply historic networks prefigure twenty-first-century globalization and help us understand global prob-

lems today. As historians Michael Geyer and Charles Bright (1995:1042) explain, "The recovery of the multiplicity of the world's pasts matters now more than ever, not for reasons of coverage but because, in a global age, the world's pasts are all simultaneously present, colliding, interacting, intermixing. . . ."

Whatever our opinions of details and arguments in recent works of global history, archaeologists must acknowledge the broad intellectual interest and even importance, beyond our field, in understanding large-scale dynamics in the distant past. With increasing interest from other disciplines, it would seem useful for North American archaeology to get its global (or at least continental) house in order. How should we deal with hemispherical or continental phenomenon, very large



Figure 1: Distances from highland Mexico to Chaco Canyon and Cahokia were relatively equal, and the coastal or trans-Gulf route to Cahokia may have made the trip easier than to Chaco. Why are there numerous Mexican goods at Chaco and none at Cahokia?



Figure 2: Mexican copper bells, like these from the Mimbres region, are among the most common Post-classic imports in the Southwest.

arrays, very deep histories? To address this large question, we focus here on a small subset of global history: Southwestern and Mississippian archaeology, and specifically Chaco and Cahokia.

We contend that ancient America north of the Mexican border is lessened by the tendency of archaeologists to treat our continental setting as a matter for debate rather than a matter of fact. Nothing is gained and much is lost by assuming isolation of major cultural areas in North America. For example, a recent review of “North America and Mesoamerica” essentially concluded that there was “a complete lack of evidence” for “Mesoamerican connections to the south-eastern U.S.” and the perceived importance of Southwestern-Mesoamerican connections “will probably dwindle with time” (Cowgill et al. 2002:158). This seems to us short-sighted and perhaps even dogmatic. Paleoindian interactions were continental in scope, and historic groups operated on similarly large scales. Why should we assume that cultural climaxes, such as Chaco and Cahokia, operated on smaller scales than their predecessors and successors?

Southwest

The study of Southwest-Mexico interaction has depth in Southwestern archaeology: Adolf Bandelier’s portfolio in 1880 was to evaluate Mexican connections (and then-current, ever-resurgent notions of a Southwestern Aztlan). Bandelier’s conclusions on Aztec origins were negative, but the question of interaction persists, generating such an extensive literature that we write intellectual histories of arguments, pro and con.

Why sustained interest in Southwest-Mexico—particularly, in contrast to Southeastern attitudes? Until 1846, the U.S. South-

west was, in fact, part of Mexico (later-day Aztlan partisans still see it so). More importantly, a great many artifacts and objects of undeniable Mexican origin are found in Southwestern sites: for example, over 600 copper bells (Figure 2), over 400 scarlet macaws (Figure 3), and literally tons of shell from as far south on the Mexican Coast as the Bay of Banderas. The flow was not one-way—considerable quantities of turquoise found in Mexico came from the Southwest. It is worth noting that most Mexican objects in the Southwest probably originated in West Mexico, and Post-classic turquoise craft production was probably centered in the Mixtec-Zapotec region of Mesoamerica. Thus, Southwestern connections were more likely with western and southwestern Mesoamerica than with the Mexican highlands.

Mexican archaeology, it seems, thinks globally. Exhibits at the Museo Nacional de Antropología in Mexico City and Museo de las Culturas del Norte in Casas Grandes, Chihuahua, and edited volumes such as the monumental *La Gran Chichimeca* (edited by Beatriz Braniff C.; CONACULTA, Mexico City, 2002) demonstrate axiomatic inclusion of the U.S. Southwest within larger, continental prehistories. (It is worth noting that Southwest-Mexico connections are a topic of interest among our Native American colleagues and contacts—a happy topic for collaboration.)

Southwestern archaeology has a long—if sometimes perfunctory—history of at least thinking about Mexico. Three regions stand out for long, thin threads of scholarship examining Southwest-Mesoamerican connections: Hohokam, Chaco, and Casas Grandes. We focus on Chaco Canyon, the major and perhaps only near-urban center in Puebloan prehistory. Substantial villages appear as early as A.D. 500 and the canyon is occupied until perhaps A.D. 1300. Chaco begins to emerge as a center about A.D. 900; its peak came between A.D. 1000 and 1150, after which it declined dramatically. At its height, population may have reached 3,000. Chaco’s characteristic “great houses” (massive, geometrically formal masonry buildings) created a cityscape including “roads,” platform mounds, and other monuments. Nothing earlier presaged Chaco, and (less certainly) nothing after rivaled it in size and architecture. Chaco is generally understood to be politically and socially complex.

In the long course of Puebloan prehistory, Chaco appears unique, even anomalous. The presence of many Mexican objects and even a few architectural elements suggested to many archaeologists that Mexico played a role in Chaco’s emergence. Indeed, primary researchers at Chaco in the 1970s concluded that Chaco was the result of direct Mesoamerican intervention, summarized by Alden Hayes (1980:63): “there is no place to look for the source [of Chaco] except ultimately in Mexico.” Over the last 20 years, a series of studies chipped away at the Mexican hypothesis until, in an overview of “Recent Research on Chaco,” Mexico is conspicuous by its



Figure 3: A macaw feather sash from southwestern Utah. This sash was locally made from macaws that were imported, probably alive, from southern Mexico (courtesy of Edge of the Cedars State Park Museum and Kent Frost).

absence: “the topic of Mesoamerican contacts with Chaco have all but disappeared from the literature” (Mills 2002:95).

Having dismissed Toltec agents as instigators of Chaco, there still remain an impressive number of Mexican objects at Chaco and an extraordinary canyon-wide industry of turquoise bead and tesserae production. Mexico may not be needed as a

source for Chaco, but Mexico remains an essential context—we ignore it at our peril.

Southeast

While few items of Mexican manufacture have been found in the Southeast, the ties between the two areas may well have been deep and enduring. Iconographic forms such as bird-men and long-nosed gods, unique manufactures such as engraved shell and ceramic effigy forms (e.g., head pots, hunchbacks), and rituals such as arrow-sacrifice suggest deep connections between Mexico and the Southeast. More concrete examples of the Southeast’s connection to Mexico can be found in the triumvirate of corn, beans, and squash. Not only did these domesticates move consistently, and perhaps repeatedly, into the Southeast, but they must have been accompanied by knowledge of sowing, harvesting, storing, and processing. We might well ask what other information accompanied corn, beans, and squash—means to reckon planting and harvest times? Fertility rituals? Knowledge of associated supernatural beings such as Tlaloc or Quetzalcoatl?

No less significant are the pyramidal mounds and plazas that form the core of Mississippian centers. While based on patterns of settlement organization reaching back at least to Hopewell times—and perhaps well before—Mississippian communities show striking parallels to Classic and Post-classic Mexican ones. Flat-topped mounds elevate temples and/or elite residences above the surrounding community and are arranged around a plaza where public rituals and feasts are held. Plaza and mound groups are often isolated from the rest of the community either spatially or by walls. Plazas and mound groups are aligned to cardinal points or, in some cases, to celestial objects, suggesting that astronomical observations were an important part of Mississippian polity and ideology, just as they were in Mexican ones.

Cahokia and its environs formed the preeminent Mississippian center and the largest pre-Columbian settlement north of Mexico. Cahokia appeared suddenly out of a landscape of small villages around A.D. 900. Its peak came about A.D. 1150, after which it declined dramatically, disappearing altogether by about A.D. 1250. At its height, Cahokia’s population may have reached 10,000 or more. Cahokia’s carefully aligned mounds, multiple plazas, and massive palisade created an urban setting that was by far the largest and most complex in the Mississippian world. Although smaller mound centers presaged Cahokia, indeed reaching back perhaps to Watson Break (ca. 3000 B.C.), nothing before or after rivaled it in size and complexity.

Cahokia is a unique urban center in a landscape of smaller centers and even smaller villages. Explaining Cahokia’s rise

and fall has been an exercise for generations of Mississippian archaeologists. The presence of what appear to be clear Mexican parallels in the architecture and iconography (and the importance of astronomy) led many early researchers to seek a Mexican source for Cahokia. Indeed, one prominent excavator suggested that Cahokia may have been established as a market center for *pochteca* traders from highland Mexico (Porter 1977). But not a single artifact of Mexican origin has been found at Cahokia, and over time the idea that Mexico had any connection at all with Cahokia became anathema.

Does the lack of Mexican-derived material at Cahokia mean that Mexican-derived ideas were not present? Are pyramidal mounds around plazas, bird-man iconography, and other parallels between Mexico and Cahokia all independent inventions, or might we more usefully look at them as part of a larger world of deep history? For example, clear evidence of significant interactions between the Huasteca and Caddoan regions has been recognized since the 1920s, and Mexican archaeologists continue to explore the nature and extent of these interactions (e.g., Zaragoza 2003). Given the importance of these regions to highland Mexico and the Southeast, respectively, it seems implausible to argue that there was no influence or interaction beyond them. Rather, it seems more realistic to assume that polities in both Southeast and highland Mexico were aware of and perhaps even in contact with peer polities in distant regions of the Post-classic world.

Parallels and Differences

There are interesting parallels and equally interesting differences between Chaco and Cahokia that offer a point-of-entry into the complex problems of continental-scale questions. We present an outline of these comparisons here without extended analysis or citations, to illustrate the intriguing possibilities of such a framework.

BIG BANGS: Chaco and Cahokia both emerge about A.D. 900, peak around A.D. 1100, and collapse beginning about A.D. 1150. Both Chaco and Cahokia were the first and the largest political centers in their regions.

POLITIES: Cahokia was big; the center (10,000+ people) was larger than most Mexican cities. Cahokia's region was large; the distance from Cahokia to Aztalan was 500 kms. Chaco was small; the center (3,000 people) was comparable to third-tier Mexican cities. Chaco's region was smaller than Cahokia's; the distance from Chaco to the most distant outlier was 240 kms.

HISTORY: Cahokia was preceded by millennia-long cycles of monumental building and complex societies (Watson Break 3000 B.C., Poverty Point 1500 B.C., Hopewell A.D. 500). Chaco

was a "start-up" polity with a relatively shallow history (no earlier complex formations; settled villages began only as late as A.D. 500).

EXOTICS: Cahokia was heir to a long history of complex networks of exotic artifacts, drawn from a continent-sized region (Old Copper 3000 B.C., Hopewell obsidian and copper A.D. 500). Chaco initiated intense development of local turquoise and sustained interactions with Mexico. (Both regions had long-standing patterns of exchange of sea shell.)

BALKANIZATION: After A.D. 1150, Chaco's region broke into a dozen smaller, less complex polities or "cultures" (Mesa Verde, Tularosa, Kayenta, etc.). Cahokia's region balkanized into scores of short-term chiefdoms (Moundville, Etowah, Spiro, etc.).

SUCCESSOR CENTERS: After Chaco, smaller political centers developed at Wupatki (A.D. 1135–1200), Aztec (A.D. 1110–1275), and Paquimé (A.D. 1250–1450). After Cahokia, major successor centers developed at Moundville (A.D. 1000–1550), Etowah (A.D. 1050–1540), and Spiro (A.D. 1000–1450). Intriguingly, the late centers of Paquimé and Spiro were located on southern or southwestern boundaries of their respective Puebloan and Mississippian worlds; both were probably closely engaged with Mexico.

IDEOLOGIES: Both Chaco and Cahokia were followed by notable "explosions" of ideologically charged art: the Kachina Cult and the Southeast Ceremonial Complex. Both of these artistic/ideological complexes persisted into historic times.

MEXICO(S): Chaco's interactions were primarily with West Mexico (Aztatlan Horizon?). Cahokia's interactions were more likely with Northeast Mexico (Huasteca?). The Southwest and Southeast interacted with two different "Mexicos." Very likely, however, both Chaco and Cahokia were fully cognizant of Post-classic developments in highland Mexico.

IMPORTS AND EXOTICS: The Southeast in Mississippian times drew from a near-continental-scale region and inherited historically deep traditions and symbol systems for exotics and prestige goods. The Southwestern region in Chacoan times was smaller and comparatively impoverished and looked outside its boundaries to Mexico for symbols of power.

Conclusions

We believe that these comparisons open a potentially fruitful avenue for understanding continental-scale processes. To illustrate the utility of the approach, we return to our original question: Why are there Mexican sumptuary goods at Chaco and

not at Cahokia? We suggest the answer lies not in Mexico, but in the Chacoan and Cahokian polities themselves. Mississippian polities were built on millennia-deep history and traditions of monumentality, exotic materials, and their meanings. Southwestern polities, such as Chaco, were “start-ups,” creating political symbolism on the run. They looked to West Mexico for “ready-made” symbols of power. Fledgling Southwestern hierarchies needed legitimation from Mexico; Mississippian lords did not. Mississippian lords could use and manipulate continental-scale traditions, which can usefully be considered as something like “Mesoamerica in the Woodlands” without the need for Mexican fripperies. The Southwest’s Mesoamerica was distant West Mexico, separated by spectacular mountains and gorges of the Sierra Madre Occidental; the Southeast’s Mesoamerica was of far easier access, along the Gulf Coast to the Huasteca. Thus, the spectacular presence of Mexican objects, birds, and artifacts in the Southwest and their apparent absence in the Southeast may be misleading—the Southwest was perhaps less culturally integrated with its Mexico (West Mexico) than the Mississippian realm reflected the world and worldviews of its Mexico (Huasteca).

Framing these ideas in more familiar terms, we would argue that Chaco and the Puebloan world were a periphery of Mexico. Chacoan leaders used Mexico as a source of distant power; imported objects and ideologies supported emerging political hierarchies. In contrast, we would argue that Cahokia and the Mississippian world were a center in their own right, essentially equal to Mexican polities. Cahokia was the northernmost city within a larger realm of historically deep traditions that stretched from Guatemala to Wisconsin. Mississippian leaders adapted deep internal histories of monument building and intra-regional exotic exchange to symbolize new complex political arrangements. They did not need Mexican objects to demonstrate their power.

Such a conclusion, with its interesting and potentially far-reaching implications for understanding New World prehistory, would not be possible without a continental perspective. A continental perspective not only allows fruitful answers to questions like the one we posed but also places North American archaeology on firm ground relative to the emergent focus on global history. It allows us, as North American archaeologists, to make significant contributions to scholarship outside our narrow field and to make archaeology more relevant to students living in an increasingly global world. ☐

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THE CHALLENGE AND PROMISE OF HACIENDA ARCHAEOLOGY IN YUCATAN

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In September 1914, the Mexican Revolution erupted on a large sugar plantation in the Puuc region of Yucatan. The revolutionary army swept through the 35,000-acre estate, known as Hacienda Tabi, setting the sugarcane fields ablaze. The army also set about dismantling, once and for all, the labor system of debt peonage, under which more than 400 people at the hacienda were still living. In most cases, the predominantly Maya-speaking laborers had accumulated debts that were impossible to pay off, leaving them bound to the estate for life. The revolutionaries burned each servant's *carta cuenta*, or reckoning of personal debt, and gave them 24 hours to desert their homes. Those who refused were taken away by force. Literally overnight, the hacienda village was abandoned.

The episode at Hacienda Tabi was played out time and again across the countryside of Yucatan in 1914–1915. Nearly 1,000 haciendas had been established in the state, producing tobacco, sugar cane, and *henequen*—a type of agave used to make rope. Like Tabi, a great many of these lay abandoned afterward. Some were revived under new labor laws, but many just fell into neglect. At Tabi, cattle grazed on the property for most of the twentieth century while the tropical forest slowly reclaimed everything except the stately principal house (Figure 1). The old haciendas became silent testaments to an era of early capitalism characterized by debt servitude, as well as the Revolution that saw its demise.

Recent years, however, have witnessed a renewed interest in haciendas, and a growing number have been restored as restaurants, hotels, or museums. One old hacienda, Xmatkuil, even hosts the Yucatan state fair. As part of this movement, the state government purchased 3,500 acres around Hacienda Tabi in 1992 and declared it an ecological reserve. In 1995, the state transferred authority over the reserve to the non-profit Cultural Foundation of Yucatan, which outlined measures for conservation, site restoration, and ecotourism development. The Foundation also requested that historical archaeology be an integral part of the project, unlike previous hacienda renovations in Yucatan.

The Foundation asked Texas A&M University to (1) survey the grounds and produce a site plan of the abandoned village, and (2) use the site plan to develop an excavation program. Geographers, archaeologists, and a historian initiated the project in 1996, and it is currently ongoing. The combination of archival, oral, and archaeological sources has helped us gain a more comprehensive understanding of the everyday lived experience of the debt servants at Tabi (Meyers and Carlson 2002). If expanded regionally, this type of archaeology holds great promise in Yucatan. Experience with this project, however, has increased my awareness of peculiar challenges that will have to be overcome if that promise is to be fully realized.

Some Current Obstacles

Archaeological sites in Mexico are protected by federal laws. In fact, all pre-Columbian sites in Mexico



Figure 1: Hacienda Tabi's principal house is 86 meters long. The light-colored western facade (on the left) was reconstructed in 2001.

are essentially protected, whether on public or private lands. Legal protection carries over to those post-Columbian sites that meet criteria stipulated in Article 36 of the country's historic monument act (*Ley Federal* 1972). The law specifies that sixteenth- through nineteenth-century sites associated with religion, education, civil authority, and the military are in the national interest and may be considered for a registry of historic and archaeological monuments. However, the law makes no explicit provisions for hacienda preservation. Consequently, archaeology has played practically no role in the recent restoration of Yucatecan haciendas—it certainly did not have to play a role at Hacienda Tabi. Until public awareness or the legal situation changes, archaeology will remain peripheral to the study of the rural labor conditions that provoked the Revolution.

The written history of Yucatan presents additional challenges to hacienda archaeologists. A wealth of historical documentation exists, and the Tabi project has made use of both published and unpublished sources. Among the unpublished are five volumes of handwritten documents that pertain specifically to Tabi. Most are in Spanish, recording things such as annexations and legal disputes over land ownership. A considerable portion of the first volume, however, is written in Maya with Latin characters. Not only are these some of the earliest documents pertaining to the hacienda, but it is reasonable to believe that they pertain more to the day-to-day workings of the estate. The challenge has been finding someone who can effectively translate them. The latest census counts over 640,000 indigenous people in Yucatan, most of whom speak Yucatec Maya. However, remarkably few read or write it, and even fewer can reconstruct changes in the use of Maya since the eighteenth century. With such expertise stretched thin, the secrets contained within the Maya-language documents remain elusive.

Also elusive is information on historic-period artifacts. Andrews (1981:13) once lamented that “next to nothing is known about historic artifacts in Yucatan.” Since then, studies of Colonial-period artifacts have progressed, while Republican-era (1821–1915) artifact study remains in its infancy. The roots of Tabi and many other Yucatecan haciendas do extend into the Colonial period, but the cash-crop economy did not come of age until after independence. Consequently, most hacienda villages, their resident laborers, and the artifacts they left behind are nineteenth-century phenomena.

Most of the artifacts recovered so far from the Tabi village suggest dates between 1830 and 1914, but comparative collections in Yucatan are exceptionally scarce. Without the collections and their documen-

tary support, the chronological, socioeconomic, and functional correlates that are now routinely employed in the interpretation of historic sites in the U.S. are merely assumptions in Yucatan. Burgos (1995) has made an initial attempt to classify local and imported ceramics of the Republican era, and ethnographic studies describe indigenous pottery traditions of the early 20th century. Beyond ceramics, however, there are virtually no systematic studies of bottles, nails, buttons, or any other artifact class in post-Colonial Yucatan.



Figure 2: Members of the Conservation Corps of Mexico map one of the house ruins in the Tabi village.

A Promising Outlook

Despite these obstacles, hacienda archaeology holds great promise.

Site preservation is a particular advantage, given the pattern of abandonment during the Revolution. While the central cores of some old estates, like Hacienda Chunkanan, evolved into small villages, many were never reoccupied. At Hacienda Tabi, the remains of house foundations, street boundaries, and plazas are well preserved (Figure 2). Although the forest now eclipses most of the hacienda, not enough time has passed for the vegetation to reduce the ruins to the indistinguishable rubble mounds that are all too common at pre-Columbian sites. Likewise, neither Tabi nor other historic haciendas are primary targets for looting, given the overwhelming demand for pre-Columbian artifacts on the antiquities market.

Hacienda archaeology's potential also lies in the accessibility of oral history. Pre-Revolution memories are, in many cases, only a generation or two removed, so a pervasive oral history exists. Archaeology at Tabi has benefited immensely from interviews conducted with men who lived on the estate prior to the Revolution (Rejón 1993). The accounts are a treasure-trove of insights into the conditions of debt servitude. Both archaeological evidence and written records have corroborated various parts of their testimonies. The linkage of oral history and archaeology would seem to have significant popular appeal in Yucatan. I continue to speak with descendants of those who worked on the estate, and this approach might be inspiration for those who take up hacienda archaeology in the future.

Perhaps the greatest promise of hacienda archaeology is the opportunity to explore ethnic social interaction associated with the rise of the capitalist plantation economy. The ethnic diversity that existed on Yucatecan haciendas went far beyond the popular Maya-European dichotomy. American journalist John Turner (1969:8) counted 8,000 Yaquis from northern Mexico, as well as 3,000 Chinese and Koreans, on Yucatecan haciendas before the Revolution. The oral and written histories of Hacienda Tabi also mention Cubans and "Negroes," in addition to Koreans, Chinese, and the Maya majority. With persons of African, East Asian, European, and Native American descent, Hacienda Tabi was a veritable "global village" long before the phrase itself was popularized. This dramatic experience of cultural contact is, in some respects, Yucatan's hidden history—it is not widely acknowledged in state museums, tourist sites, or historical literature. Hacienda archaeology has the potential to exhume that history and foster popular awareness of it. In fact, the ethnic realities of Tabi were brought into focus last summer when a nineteenth-century Chinese coin was discovered during test excavations. In a land where archaeology has long been associated with the reconstruction of pre-Columbian monuments, hacienda archaeology

could broaden people's perspective of the region's ethnic heritage and enhance their appreciation of what archaeology can achieve.

Archaeology as Part of Something Greater

Historical archaeology is, of course, just one part of the management strategy at Tabi. The Cultural Foundation of Yucatan is restoring several core buildings and hopes to transform the hacienda into a center for environmental education and ecotourism. A small museum opened there in 2001 with much fanfare. Plans ultimately include reconstructing a portion of the workers' village based on the archaeological evidence, with at least a few houses adapted for low-impact tourist use. Moreover, a 20-km ecological corridor might one day tie Tabi to the important, but still very isolated, pre-Columbian site of Kiuc where a biocultural center is being built. The peninsula's leading newspaper, *Diario de Yucatán*, remarked that if the vision for Hacienda Tabi comes to fruition, it could be "one of the most important cultural, tourist, and ecological sites of Yucatan."

That vision for Tabi has been formulated with larger concerns in mind. There is a serious need for sustainable economic alternatives in the impoverished rural communities that surround the reserve. The Foundation hopes to provide local employment, not only through restoration and reconstruction work, but by eventually establishing cooperatives to run various elements of the reserve. One cooperative might maintain and operate the lodging and dining facilities at Tabi, while another would operate the educational center, botanical garden, and ecological tours. A third cooperative might be stewards of the pre-Columbian and historic archaeological sites, providing guided tours for school or tourist groups, as well as being participants in any future archaeological investigations. The Foundation currently sponsors such local cooperatives in Yaxunáh, a town near the famous Maya site of Chichén Itzá, and there may ultimately be parallel developments at Tabi. Perhaps such a direction will allow rural Yucatecans to feel as if they benefit as much from their rich cultural heritage as the many tourists who come to marvel at it. 📷

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TOMB RAIDERS OF EL DORADO

CONSERVATION DILEMMAS ON A “NEW” ARCHAEOLOGICAL FRONTIER IN PERU

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Peruvian archaeologist Walter Alva (2001:91) estimates that there are approximately 200,000 unregistered monuments and archaeological sites in Peru dating from the last four millennia. “All of them,” he believes, “including the farthest or most overgrown, have been partially affected by looting.” Some might quibble over Alva’s figures, but most archaeologists feel that there really are no more unlooted pre-Hispanic sites in the Andes. They share an attitude that we can win few battles in a war that we have already lost.

Such battles are currently being waged on the forested eastern slopes of the Central Andean *cordillera*, an emerging archaeological frontier that still lies largely outside of Peruvian mainstream archaeology but that has always figured hugely in the popular imagination and Peruvian consciousness. The so-called *ceja de selva*, or *ceja de montaña*, has been described as “South America’s last forested wilderness” (Young and León 1999:11). It is characteristically rainy, windy, and cold; dense tropical foliage chokes a vertical landscape that plummets nearly 4,000 m in the 50–150 km separating the eastern Andean cordillera from the Amazon lowlands (Figure 1). Extending approximately 1,500 km north and south, and representing 20% of Peru’s territory, the *ceja de selva* is also one of South America’s most biologically diverse and fragile environments (Young 1997). This is the heart of El Dorado, where dreams of the “golden-man,” the Inca’s hidden ransom, and mythical Paititi lured thousands toward heartbreak and death during the Colonial Period. Today, an aura of romance and riches still inspires unregulated ecotourism, extreme-sports expeditions, pseudo-scientific explorations, and, most recently, the rampant looting of pre-Hispanic monuments. Since new archaeological initiatives in Peru’s north-eastern Andes began in the mid-1990s, unlooted and freshly looted sites attributed to the “Chachapoya Culture” have indeed been located. This article draws attention to battles now being waged, won, and lost on this archaeological frontier, and points the way toward some solutions.

Identifying the Problems

Peru’s increasing integration within the global economy has spawned government and private-sector initiatives to open or expand tourist access to archaeological attractions in remote regions, ostensibly as one kind of sustainable development. The damage caused by swelling numbers of tourists at the *ceja de selva* site of Machu Picchu has led to a collision between competing interests of tourism developers, on the one hand, and defenders of monument conservation on the other (Mujica 1999). In the Chachapoyas region, backpackers have visited the immense fortified settlement of Kuelap for a century. However, a new road and an effective publicity campaign generated a boom in tourism that belatedly spurred the Peruvian government into contracting archaeologists and conservators. These specialists work frantically to stabilize the monument and to develop a formal management plan (Narváez and Morales 2000). In the nearby Río Abiseo National Park, the Protected Areas division of the Ministry of Agriculture has been more circumspect in its proposed development of tourist infrastructure at Gran Pajatén, Los Pinchudos, and other monuments. The highly decorative architecture at these sites is con-

structed of fragile slate slabs, friable sandstone, and degraded mortar (Figure 2). Every conservation project in this harsh environment is nothing less than a research experiment. Some archaeologists believe that tourism at Gran Pajatén will not return the monetary investment in infrastructure without exorbitant visitor fees. The ruins themselves will not withstand such impacts without a permanent conservation program requiring continuous investment (Church 1999; Morales 2002). Unfortunately, the government's Ministry of Commerce and Tourism already invites tourists to visit Gran Pajatén (see <http://www.mincetur.gob.pe/regiones/libertad/granpajaten.html>) despite the lack of a finalized management plan and conservation program.

Within a climate that favors the marketing of fragile cultural heritage sites, colonization of the eastern slopes by highland villagers in northern Peru is also accelerating. Consequent deforestation exposes previously concealed monuments, and Chachapoya cliff tombs become especially easy targets for looters since they were built in sheltered promontories where mummified ancestors could “see” and be seen by the living. A horror story with a quasi-happy ending unfolded in 1997 at cliff tombs high above the Laguna de los Cóndores, a long-day's trek from Leymebamba into the eastern cloud forest. Cattle herders had discovered and thoroughly ransacked a cluster of six mortuary chambers while seeking gold and silver artifacts. They hacked some mummy bundles in frustration at their failure to find precious metals but left behind a wealth of extraordinary textiles, intact Inca *quipus*, pyro-engraved gourds, and other objects that archaeologists of Centro Mallqui succeeded in recovering and conserving in a new museum and research center in Leymebamba (Von Hagen and Guillén 1998). Like the 1987 discovery of the Moche “Lord of Sipán,” the Laguna finds have permitted a quantum leap in our knowledge of Chachapoya art and archaeology by rendering objects that are normally lost to looters. Yet even as archaeologists publish their finds, those in the field have seen the first evidence of targeted “hits” on other newly exposed Chachapoya cliff tombs. Such waves of looting are the high price that the world pays for extraordinary archaeological discoveries. A textile recently advertised on the Internet by Tai Gallery Textile Arts in Santa Fe, New Mexico, and attributed to a Chachapoya “Abisco [*sic*] or Pajatén Culture,” bears witness that Chachapoyas archaeology has indeed come of age (Figure 3). Archaeologists of Centro Mallqui, Denmark's National Museum, and Peru's National Institute of Culture (INC) now race to inventory monuments uncovered by a settlement frontier that is cutting its way deep into the Huallaga River basin.

Archaeological Adventure Tourism

The globalization of ecotourism and the rising popularity of “extreme” wilderness expeditions also generate conservation dilemmas. Partnerships between archaeologists and whitewater outfitters like those described by Goddard and Jennings (2003) in the Cotahuasi Canyon can alleviate conservation prob-



Figure 1: Map of Peru's eastern Andean tropical forests and sites mentioned in text.

lems. Some outfitters in the Chachapoyas region also show sensitivity and communicate regularly with archaeologists. The most damaging kind of eco-tourism in the *ceja de selva*, “discovery tourism,” is profit-driven and seeks “undiscovered” sites well-known to local villagers who serve as guides. Clients pay to “discover” ruins and perhaps apply a grandiose name (e.g. “Gran *fill-in-the-blank*”). Expedition machetes cut inviting avenues to sites where clearance activities expose ancient masonry to weather and aggressive secondary growth that takes root and explodes the stone walls (Church 1999). In 1998, a Web-publicized Dutch climbing expedition planned to enter the forests near Leymebamba in search of “an unlooted Chachapoyas tomb,” but neglected to ask the government for a permit or to contract an archaeologist. They were successfully detained until they met government requirements. Yet even as the team announced its success, looters were following their freshly cut trail to sack the tombs. Similar episodes are a yearly occurrence. In 2000, guards at the entrance to the Rio Abiseo National Park intercepted a group of U.S. kayakers arriving without necessary permits. Upon being turned away, they became indignant, as the kayaker’s ethos dictates that no one owns earth’s waters.



Figure 2: The slate mosaic friezes and sandstone tenoned heads that adorn Building No. 1 at Gran Pajatén have been “cleaned” dozens of times with tools ranging from machetes to fingernails.

More than ever, the *ceja de selva* has become a playground for adventurers wishing to live-out their Indiana Jones fantasies. A tour of the Internet confirms that the search for El Dorado did not end with the beheading of Sir Walter Raleigh in 1618. Every year, huge expeditions with six-figure budgets slash their way down the Andean slopes in search of El Dorado, Paititi, or similar “Holy Grails,” financed by paying expedition member-clients. During 2001, 2002, and 2003, massive expeditions armed with GPS and geophysical surveying equipment were led by Col. John Blashford-Snell, Jacek Palkiewicz, and Gene Savoy, respectively. All claimed unqualified success at locating Paititi and El Dorado in eastern Bolivia, central Peru, and northern Peru, respectively. Their websites describe expedition leaders as “self-styled academics” and “self-taught archaeologists” and sustain personality cults by providing the kinds of triumphant testimonials usually reserved for the dead. The sites also offer expedition “membership,” links to commercial interests, and even mail-order New Age religion. On July 28th of this year, Peru’s Independence Day, the nation’s leading newspaper declared in banner headlines that El Dorado had been found by Gene Savoy and his team of Peruvian archaeologists in the upper Huabayacu River valley (*El Comercio* 2003a). In the accompanying article, Savoy’s son Sean clarified that only the part about “the city covered in gold” was a myth. He certified the find as authentic by affirming that his father had already looked everywhere else. The elder Savoy admits that he views history as “more an art than a science.” “After all,” he concludes, “no one can prove that what we have found is not El Dorado” (*El Comercio* 2003b:E6).

Surprisingly, Savoy's claims were not picked up by wire services which usually publish his finds of always bigger and earlier lost cities. Savoy declared that his 1985 "discovery," dubbed Gran Vilaya (previously known as Congón), was the largest pre-Columbian city in South America and the ancient capital of a Chachapoya kingdom. The settlement reportedly consists of 23,950 circular stone Chachapoya-style buildings covering an estimated 120 square miles. Savoy's most recent "discovery," alternately referred to as Cajamarquilla, Gran Saposoa, and El Dorado, extends over 26 square miles, and the archaeologists working under his aegis have endorsed his El Dorado attribution (*El Comercio* 2003a). It appears likely that what Savoy describes as a "vast ancient metropolis" at Gran Vilaya is actually a particularly dense clustering of settlements built on terraced hilltops in the Vilaya River drainage. However, no professional archaeologist has ever reported on the site. Those of us who work elsewhere in the Chachapoyas area see little evidence for political unification that would entail a "capital city." Savoy's claims as a "discoverer" are dubious. Worse, his team has been clearing sites for three years without the benefit of a conservator. Nonetheless, he has seen more Chachapoyas archaeology than most professional archaeologists ever will.

The most significant finding to emerge from all of these modern expeditions is this: the *ceja de selva* is littered with monumental sites that remain under-studied and mostly ignored in scholarly accounts of Andean archaeology. Twenty years ago, Lyon stated that, "wherever a reasonable amount of research has been carried out we find continuous occupation and utilization of the land from the highlands into the montaña" (Lyon 1981:8). A significant percentage of Inca and Chachapoya archaeology seems to be unreferenced in published Spanish chronicles and remains concealed beneath forest regrowth. When scholars finally do get an accurate view of the *ceja de selva*'s hidden archaeology, a great deal of the Andean past, especially pre-Hispanic demography and paleoecology, may have to be re-assessed.


Finding Solutions

The pursuit of the past in the Peruvian *ceja de selva* has comic episodes, but it is largely tragic, with few success stories. Archaeologists working in Chachapoyas have been blessed by invaluable collaboration with a few avocational archaeologists and explorers who have contributed immeasurably to research and conservation efforts while attracting a minimum of attention to themselves (e.g., Muscutt et al. 1993). But how can archaeologists take control of this runaway freight train? Clearly, Peru's government must lead the way. To this end, ex-President Alberto Fujimori signed an executive decree in 2000 (Decreto Suprema No. 022-2000-ED) declaring the territory covered by ancient Chachapoyas an Archaeological Reserve and prohibiting "all missions, expeditions, and projects" until the INC formulated new regulations. A deadline for the new regulations came and went, and the decree became null. It may have been insufficient to prevent some of the greatest destruction anyway. How can Peru effectively police a wilderness frontier nearly 1,000 miles long? Archaeologists have limited political clout anywhere in the world. In Chachapoyas, the unity of purpose so important to concerted political action is usually undermined by professional rivalries and "territorial" disputes. Unfortunately, the culture area lies within three jurisdictions: Amazonas, La Libertad, and San Martín. Because sites like Gran Pajatén lying within its jurisdiction are only accessible through mountain passes in Amazonas or La Libertad, San Martín fights bitterly for some political and economic control over these potential tourist attractions.

The most effective solution for both the short- and long-term is already exemplified by Centro Mallqui. Permanent constructive engagement of communities and public educa-



Figure 3: Once tossed aside by local villagers, "Chachapoyas Area" textiles like this one advertised on the Internet are now specifically targeted and looted "on demand."

tion through the establishment of research museums in their midst is the common denominator shared by all effective conservation initiatives (Alva 2001; Stanish and Kusimba 1996; Vega-Centeno S. 2001). Vega-Centeno S. (2001:47) cites Centro Mallqui as a rare example of a successful initiative that places conservation and research on equal footing. Unfortunately, Centro Mallqui is a target for lawsuits and continuous accusations of conservation malfeasance directed by a competing archaeologist (*El Comercio* 1997a, 2001; Kauffmann D. and Ligabue 2003). The underlying issue seems to be a case of alleged “claim-jumping” at the Laguna de los Cóndores tombs salvaged by Centro Mallqui’s archaeologists under INC supervision in 1997. Kauffmann refers to the site as “Laguna de las Momias” and seeks moral high ground by claiming that the tomb contents were largely undisturbed and should have been left protected *in situ* for posterity (*El Comercio* 1997b). Centro Mallqui archaeologists report that over 90 percent had been disturbed when they visited the site and that its contents were endangered (Von Hagen and Guillén 1998:50). Regardless of the details, a new dilemma has been introduced to Peruvian archaeology. Can *any* of the sites—never mind *all* of the sites—on this frontier be effectively protected for posterity? Or, is it the ethical obligation of Peruvian archaeologists to intervene and collect both disturbed *and* undisturbed vestiges that remain of this neglected heritage before looters plunder all? Alva (2001) reminds us of prior cases where entire pre-Hispanic “cultures” like Tembladera were looted and sold before archaeologists could take action. Is archaeological intervention upon encountering an unlooted cliff tomb now subject to professional and public censure? This important issue is only one of many now contemplated by archaeologists faced with the monumental challenge of discovering the Chachapoya, before this so-called “lost civilization” is truly lost forever. 

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SITE PRESERVATION OR SELF PRESERVATION?

THE ISSUE OF STEWARDSHIP AND CONTROL

James M. VanderVeen

James M. VanderVeen is a Ph.D. candidate at Indiana University.

In addition to conducting research and developing interpretations, the professional archaeologist has other responsibilities. Primary among these is the protection of archaeological materials and sites. In fact, stewardship is the first principle in the SAA Statement of Ethics, enumerating the obligation to the artifact before that of local people, the general public, or others in the discipline. Of course, the duty of stewardship does not exclude accountability to interested parties; the preservation of the archaeological record is important expressly because the materials, sites, and reports are a public trust and should be used for the benefit of all people. Still, the basis for archaeological research and ethics are both fundamentally tied to the maintenance of artifacts and their context.

The Archaeologist's Agenda

The archaeological record is often said to be a fragile and nonrenewable resource, and thus careful preservation is of paramount importance. It is the pristine site, after all, that may provide the excavator with the most clear and understandable data. But just how many sites are really “pristine”? Every site probably has been plowed, eroded, scavenged, or trampled. Even if the deposits remain intact, the landscape may have been severely altered. Archaeologists are often among the last people to learn about a site—a researcher is often brought in only after hearing about the area from the landowner, who first told neighbors, who told looters, and so on. Only after many other parties with significant interests have become familiar with the site's location and contents do the “professionals” make their appearance.

The appeal of the site may be vastly different among these stakeholders, but a non-archaeological stake can be just as strong as any research interest. These other claims are, in reality, as equally valid as those of the archaeologist—including the choice of an individual to harvest the artifacts in order to make a living (Zimmerman 1995:65). Although this may be anathema to the discipline, it is often a legal right of the private property owner. The view, expressed in the SAA ethics statement, that the past belongs to all and should not be exploited for individual benefit, can be turned on its head by those looters, collectors, and landowners. Certainly, archaeologists see themselves as stewards because they want to protect the record of the past, but many are motivated by a professional desire to use that record as a personal source of data. The information becomes a paper, the paper leads to a book, and the book is rewarded by tenure or further contracts. Is this not also a form of exploitation, especially if the site is secured (for the safety of the data, of course) from the public and other researchers?

Archaeologists often claim to speak for the past, using the recovered materials as evidence of particular behaviors and beliefs. The discipline attempts to construct a scientific authority and then uses that created objectivity to elevate itself above any cultural bias (McIntosh et al. 1989:76). The profession has appointed itself the curator of the world's prehistory, which assumes that sites will fall apart without the help and input of archaeologists. But the discipline cannot hide, nor hide from, modernity. Besides the

stated interest in protecting sites for all humankind—a moral high ground regarding that which is underground—an archaeologist has no claim that trumps the assertions of other constituencies with interests in the land or the artifacts it holds. This complexity of concerns may be troublesome, but it is an element of the world in which we live. Practitioners of archaeology need to be cognizant of the influence that their research, and the corresponding demands on the archaeological record, has on the lives of others (Zimmerman 1995:65).

Archaeologists and Power

Much of the social relations between archaeologists and others comes in the form of competition for power, whether the decision is conscious, purposeful, or otherwise. The past has significant power in the present because the archaeological record is used to develop and build conceptions about legitimacy, superiority, and affiliations. Archaeologists have an influence on others in theoretical and technical ways, extending from a colonial attitude in which modern cultures are no more than living museums of the past (Trigger 1984:360) to the more methodological aspects where the scientists create categories of analysis into which the activities of other cultures (and the cultures themselves) are placed with no say of their own (McIntosh et al. 1989:76). Information produced through an examination of the past also provides ammunition for attack. Particular findings often are used to further the agenda of governments or competing groups, and the power of legislating sites leads to the control over cultural symbols (Silverman 2002:883).

There are countless other methods by which archaeological excavations or interpretations are used to gain, maintain, and enhance power, and numerous other parties seek that political and economic clout. The local people, descendent community, administrators, tourists, private industry, ecologists, and collectors are not disinterested groups when it comes to developing archaeological heritage. Rather, the information they seek and strategies they employ are considerable, they just may not be the same as that of the archaeologists (Pyburn and Wilk 1995:75). Archaeologists are but one stakeholder with only one idea about the desired condition of a site. With all of the competing interests discussed above, the discipline may have to relinquish its control as the one true steward of a site (Zimmerman 1995:66). This means an undesired loss of power, and thus many archaeologists try to ignore those with other legitimate agendas and seek the preservation of the site as a matter of self-interest instead of as a public trust.

Some archaeologists believe that development of sites means that “archaeological treasures are damaged by ill-advised renovations” (Jennings 2002:21). Research itself destroys the same sites and often the local community as well. Excavators come, dig, and leave while the local people continue to live and work in these areas. I do my research in the Dominican Republic where I have seen a multitude of examples of alternative stewardship. While these developments do not provide an improvement on the form of preservation desired by archaeologists, they represent the reality of the situation.

Sharing Stewardship in the Dominican Republic

At the site of *Sierre Prieta*, near *Fantino* in the north-central portion of the country, there is an isolated rock hill rising about 20 meters straight into the air and surrounded by a cattle pasture. The walls are nearly vertical, and the bare cliffs on one side are covered with ancient petroglyphs and a single pictograph. The landowner allows tours of this rock art (Figure 1), for which he is compensated. While this may seem selfishly exploitative, he is simply acting under his legal right to gain the greatest advantage of his property. The carvings are another resource on his land to use for his family's benefit, and although there is considerable vandalism, it is his prerogative to maintain the site as he chooses.

But eco-tourism does not have to be purely destructive in the eyes of archaeologists. Another rock art site in the southeast of the country, known as *Cueva de Chicho*, shows that economic benefits of

tourism and site development provide an incentive to protect significant areas from further destruction. Cueva de Chicho contains a fresh-water spring and is used by the surrounding community as a water source. But it also holds a number of petroglyphs carved on stalactites and elsewhere. The cave is owned by a group that is involved in hotel and resort operations nearby, and during a visit earlier this year, I saw that it was busy with activity (Figure 2). Recreational scuba divers were exploring the underwater channels, a group of eco-tourists from Europe rode to the site on horseback to wade in the spring water, and a team of archaeologists were documenting and mapping the petroglyphs. The site has been altered from my previous visits in that there is a larger dirt parking lot above the cave, and steps have been cut into the rock to provide safer and easier access to the water's edge. The carvings, however, remain unaltered, and the placement of the steps will reduce wear on the flat surfaces containing the prehistoric art.

Finally, in the eastern part of the nation there exists a rare petroglyph site. Called Anamuyita, after the nearby river, this site is a large flat stone set just below grade into which centuries ago Taíno and pre-Taíno artists carved hundreds of symbols. Although the site is only a few hundred meters from a busy weekend destination spot in the river, to which I have seen several eco-tourist "safari vehicles" mount expeditions, it shows no signs of recent vandalism or destruction. The landowner, a rancher named Hamlet, built a small barbed-wire fence that surrounds the stone, primarily to keep his cows off the carvings (Figure 3). Hamlet apparently did this mostly out of pride and a sense of preservation, for he has not included his site on the tourism circuit, and he generously allows archaeologists to visit his carvings.

Concluding Comments

These three examples show the range of preservation ethic exhibited by owners of similar archaeological sites. The spectrum is wide and varied, but it demonstrates that stewardship can be conducted by people other than archaeologists. The possibilities range from commercial exploitation to sustainable development through eco-tourism to strict site preservation, all without the formal help of our discipline. Tourism is not the only force that selects, sanitizes, and simplifies the record of the past. All the sites discussed here have been altered in some sense, but neither does archaeological survey leave locations unchanged. The efforts of the best professional to stave off erosion or stabilize structures are acts that modify the appearance and configuration of sites, transforming it in ways that the preservationist may not be aware. Purposeful changes also occur in the process of archaeological stewardship, from reconstruction of a wall to the selection of one site over another to be "saved," and these processes can lead to further reinterpretations.



Figure 1: Spray painted on a cave wall directly adjacent to prehistoric petroglyphs are an advertisement for a tourism company and other graffiti.



Figure 2: A virtual traffic jam of eco-tourists, archaeologists, and their vehicles above a cave containing rock art.

Many countries have limited resources and rely on Western archaeologists for funding to excavate and document sites. Research, therefore, is often conducted at sites that are durable, accessible, and with the potential to answer specific hypotheses. Governments could be afraid that if they disagree about site selection, it may discourage the resources that follow the archaeologists (McIntosh et al. 1989:107). When other stakeholders possess funding or the assets with which to procure it, however, archaeologists no longer make those decisions alone. In these circumstances, the archaeologist has the professional responsibility to seek out and listen to the issues of these other groups, and to re-invent the discipline's orthodoxy to one that fits with the modern world of multiple constituencies (Ferguson 1996:75).

Archaeological stewardship is certainly an admirable goal, and I do not propose here to do away with the ethical tenet. It is my attempt instead to point out that the discipline does not possess the only claim to archaeological sites, and to suggest that other forms of stewardship are not without merit. Any effort to encourage preservation—from sustainable eco-tourism to the sacrifice of a threatened site to theme-park-like destruction in the attempt to save others—is commendable if no other options exist. Private landowners and public institutions have the right to utilize their resources as they see fit. If archaeologists want input in these situations, they must move beyond claiming any ethical imperative and learn to lobby to make their voices heard above the fray of other legitimate interests. Just as archaeologists seek grants or petition for beneficial legislation, professionals in the discipline must develop the skill to sell their case to the rest of the stakeholders. This is only possible if we, as a field, begin to discuss pertinent issues with those outside archaeology as an initial step in our research. Archaeology is, after all, anthropology (Pyburn and Wilk 1995). Only if we seek overlapping interests and distance ourselves from a “site first” mentality can archaeology be put to its best use and serve both the past and the present. ☐



Figure 3: At the edge of a stone covered with ancient carvings, the landowner (center) talks with Dominican archaeologists.

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THE RENAISSANCE OF AFGHAN ARCHAEOLOGY

Nadia Tarzi

Nadia Tarzi is Vice-President of the Association for the Protection of Afghan Archaeology.

The initiative to start the Association for the Protection of Afghan Archaeology (APAA) was a call from the heart. As its title indicates, it is a nonprofit organization dedicated to the archaeology and cultural heritage of Afghanistan. Our goal is to bring understanding and raise awareness, thus ensuring the promotion of Afghan cultural heritage through its teaching in schools and public venues across the world, from Afghanistan to the multicultural San Francisco Bay Area. We also intend to promote and assist in the education of the international public about the inherent value of archaeological treasures to cultural identity, and to specifically focus on the plight of Afghan people regarding the loss of their cultural heritage.

We aspire to encourage the younger generations in Afghanistan to protect and preserve the rich and unique Afghan cultural heritage, thus giving hope and education to a country left in the dark for a quarter-century of war and neglect. Education in history and archaeology will be supported and facilitated by publishing books and multimedia titles informing students about their ancestors. This will let them know that Afghanistan has not always been at war and that this country, now in extreme misery, has had moments of prosperity and peace.

This education will begin in the orphanages and schools, with pedagogic care to avoid a nationalist drift. Teachers will have the difficult task of explaining how political limits drawn on today's world maps are a product of political agreements and compromises and should be viewed as political borders, while a region's archaeology and art have their own hearths with limits that do not correspond with contemporary borders. In this way, students will learn about, understand, and respect influences from other contemporary and past civilizations on their own country.

Why Teach Archaeology in Afghanistan?

In a country rich in archaeological remains, the trowel of the excavator and the writer's pen spell out the past by unearthing prehistory and correcting erroneous historical accounts. Archaeology is positioned to teach about all things produced by humans—from the simplest tool, such as the flint biface, to the seven wonders of the world. Archaeology can also teach students specifically about Afghanistan, a country situated at the crossroads of India, China, and Iran whose soil is therefore rich with thousand of amazing sites dating from the Paleolithic to present times.

Archaeology introduces us to the Afghans of the past, such as the builders north of Kandahar, at Mundigak (excavated by J. M. Casal), who laid the foundation stones of a future city of the Indus Civilization. Thanks to the archaeologists who took care in excavating the Hellenistic city of Ai Khanum in northwest Afghanistan, we now have valuable information about the presence of Greek and Macedonian colonists and their settlements on Bactrian soil. By excavating the palace, treasury, living quarters, theater, gymnasium, and temples and mausoleums of this Hellenistic city, M. D. Schlumberger and P.



Figure 1: View of the Bamiyan cliffs with the empty niche that once sheltered the 38-m Buddha statue.

Bernard preserved the fascinating past of Central Asia, a past compromised by the systematic plundering of Ai Khanum for many years now.

Afghan archaeologists S. Mostamandy and Z. Tarzi have excavated Tape Shotor in Hadda, discovering more than 60 niches with sculptures of an artistic value unseen before in the area of Greek-Buddhist art. On this site, which is the pride of Afghan archaeology, the excavation was transformed into a full outdoor museum, the most complete in Central Asia. Thanks to these excavations, Z. Tarzi was able to date the Gandhara clay moldings to be contemporary with Greek-Buddhist sculpture, such as the famous Heracles-Vajrapani of niche V2.

The case of Bamiyan is well known for the destruction of its two colossal Buddha statues (Figure 1). Fortunately, APAA's President, Z. Tarzi, is also Director for the French Archaeological Mission for the Surveys and Excavations of Bamiyan, and he resumed his search for the legendary 1000-foot reclining Buddha statue in 2002 and 2003. The work is difficult given the complicated terrain, unusual place names for the site, and the many deadly landmines still silently poised in the ground. The excavations are now filled and guarded until the next field season in Summer 2004. Reports on the exciting discoveries made by Z. Tarzi and his team are being drafted and will be available soon on the APAA website (Figure 2).

Destruction of Afghan Cultural Heritage

Of great concern is the looting of innumerable sites in Afghanistan. Arguably no other country has been as heavily and relentlessly plundered as has Afghanistan. Despite the efforts by the Minister of Culture in Kabul, the smugglers are very well organized, and every year hundreds of valuable objects are taken to the Pakistani cities of Peshawar, Islamabad, and Karachi. Thousand of objects are gone, including those from S. Mostamandy's excavations, which were stored at the Sarajul E'mara in Jellalabad; from Z. Tarzi's excavations, stored at the Afghan Archaeology Institute (AAI) at Darul Aman in Kabul; and objects from the Kabul National Museum representing 70 years of excavations. Materials from Afghan, French, German, American, English, Indian, Italian, and Japanese excavations in the various Afghan provinces—a total of about 10,000 masterpieces—have been taken to Pakistan and from there to Europe, the U.S., and Asia, especially Japan. Another 1,000 objects originating from illegal excavations, including statues, statuettes in precious metals, manuscripts, and especially murals stripped from the walls of the Bamiyan grottos, have been sold to Western and Asian collectors.

The worst looting is from Mir Zaka near Gardez, from which four tons of coins dating from the Achaemenid to the Kushan periods—along with 500 kg of silverware and Toreutic items in gold and silver—were recovered, representing the largest numismatic treasure of all times. Although a large part of this material is argued to have originated in Pakistan, and the 500 kg of silverware and Toreutic items were designated by Russian archaeologists as having been found on the right bank of the Oxus (Amu Daria), reliable pictures showing clearly an Afghan origin were disregarded. This is why the Miho Museum in Japan, which bought 60% of the Mir Zaka treasure, does not exhibit any labels describing where these objects originated. Afghans of today and the future deserve the right to know the truth.

The Role of APAA

APAA's role is easy to define. Its President, Dr. Zetaryalai Tarzi, is Professor of Eastern Archaeology at the Marc Bloch University of Strasbourg, France. Between 1972 and 1979, he was the Director General of Archaeology and Preservation of Historical Monuments of Afghanistan and Director of the Archaeology Institute. Today, he is Director for the French Archaeological Mission for field investigations in Bamiyan. Through Dr. Tarzi, APAA will assist the AAI, the National Museum of Kabul, and the Archaeology Program at the Kabul University—most of the present directors of these organizations are former students of Dr. Tarzi. APAA will be able to provide support to Afghan archaeology during its slow and difficult comeback following 24 years of inactivity due to the civil wars. APAA Vice President Nadia Tarzi represents Dr. Z. Tarzi in the U.S., where APAA organizes cultural and artistic lectures, conferences, and school presentations through which the rich past of Afghanistan is promoted to educate American and Afghan children as well as the general public. APAA is seeking support and assistance from other international experts and is forming partnerships with other organizations contributing to Afghanistan.




Figure 2: Bamiyan, Z. Tarzi excavations, Summer 2003. The unit in the foreground delivered the first clay statues ever found in an open-air excavation in Afghanistan.

APAA's short-term program includes:

- A Restoration and Preservation Training Initiative through study of objects excavated by Dr. Tarzi in Summer 2002 in the ruins of the building of the AAI in Darul Aman (Kabul). During this mission, four tons of ceramics originating from the foreign and Afghan excavation were recovered.
- A survey and excavation Training Initiative to provide professional training and skills to future archaeologists.
- Study the ceramics of Hadda at the Kabul Museum for a better understanding of the archaeology of Buddhism in Afghanistan.
- Improve the archives of the AAI, which are presently in very poor condition.
- Produce a documentary on the discovery of the reclining 1000-foot-long Buddha statue.
- Organize an International Conference on Afghan Archaeology and Heritage in California.
- Organize presentations and events in American schools on the cultural and archaeological heritage of Afghanistan to raise awareness.
- Publish school books on Afghan history and archaeology in English, Dari, Pushtu and French.

APAA's long-term plan is as follows:

- Provide scientific and material support to the AAI, including up-to-date scientific equipment.
- Provide education and training in Afghanistan to future archaeologists so they may become professionals in the field and skilled restorers, providing them with the necessary skills, tools, and equipment so that they may become self-reliant.
- Form partnerships with other organizations and universities.
- Help to improve the archives of the AAI and the Museum of Kabul as well as to enhance the restoration of objects and the stabilization of excavated sites.
- Organize scientific conferences and Afghan heritage-awareness events.
- Publish and translate scientific books as well as books and cartoons for the public. Publish school books on the history and archaeology for orphanages and schools. A specific book project directed at the general public will provide reconstructions of monuments based on accounts by the Chinese pilgrim Hui'an Tsang (Xuanzang) who saw them in A.D. 632.
- Produce documentaries and theater pieces on Afghanistan's culture and history.
- Distribute promotional material on Afghanistan to raise awareness and educate.

For more information and for donations to APAA, please contact us at apaa@apaa.info. APAA has a website presently in construction, which can be viewed at <http://www.apaa.info>. 

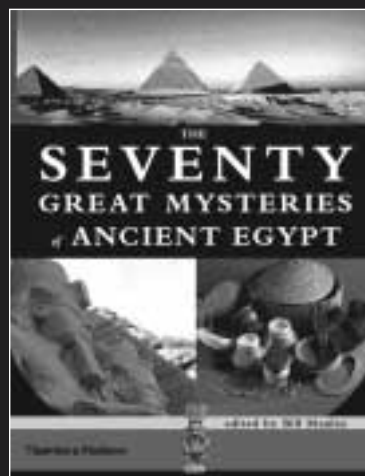
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WILLIAM ROGER POWERS

1942–2003

William Roger Powers died on September 4, 2003 in Pittsburgh at the age of 61. He had moved recently to Pennsylvania following his retirement in 2001 from the University of Alaska at Fairbanks. Powers devoted much of his career to the study of the Paleolithic of Northeast Asia and the earliest-known archaeological sites in Alaska. He had a significant impact on North American archaeology and some influence on Russian archaeology.

William Roger Powers was born on May 28, 1942 in Pocatello, Idaho. Throughout his life, he was addressed by his middle name. Raised on a ranch near Inkom, south of Pocatello, Roger attended Idaho State University as an undergraduate, where he was advised and influenced by Earl Swanson. His early research was focused on prehistoric archaeology of the Great Basin, and his first major publication was a monograph on Willow Creek Canyon in southeastern Idaho (1969).



In 1964, Roger began his graduate studies at the University of Wisconsin in Madison. At first, he continued his focus on Great Basin archaeology, completing a master's degree in 1968. However, under the influence of his advisor—the late Chester S. Chard—he subsequently shifted his attention to Siberia and embarked on his life-long study of Russian prehistory. Acquiring a knowledge of the language, Roger traveled to the Soviet Union to meet with Russian archaeologists working in Siberia and examine their collections. He translated papers on major site discoveries that were published in *Arctic Anthropology*. His dissertation research specifically focused on late Pleistocene and early Holocene age sites in northeastern Siberia (Yakutia, Kamchatka, and Chukotka) with relevance to the problem of the peopling of the New World. Much of his dissertation was also published in *Arctic Anthropology* (1973).

Roger was offered a teaching post at the University of Alaska, and he moved to Fairbanks in 1971, where he would remain for three decades. During his years in Madison, Roger had married Anne D. Shinkwin, who also accepted a teaching position in the Department of Anthropology in Fairbanks. They had two children but were later divorced. In 1976, Roger married Alicia Godfrey, and they later had one child.

Although Roger worked on St. Lawrence Island with Hans-Georg Bandi in 1973, an event in central Alaska that year altered his destiny. The discovery of the Dry Creek site near

Healy in the Nenana Valley by Charles E. Holmes generated an extended program of research on the early settlement of Beringia. Dry Creek was the first locality in central Alaska to yield multiple occupation levels in deep stratigraphic context with associated faunal remains dating to the late Pleistocene. Roger directed excavations at the site in 1974 and 1976–1977, and together with R. Dale Guthrie, he launched a wider interdisciplinary project in the northern Alaska Range. Funded jointly by the National Geographic Society and National Park Service, the new project received considerable media attention.

During 1974–1975, Roger also worked on the Seward Peninsula with G. Richard Scott, Alicia Godfrey, and others, conducting a field survey in the proposed Chukchi-Imruk National Park. He survived a near-fatal plane crash at Cloud Lake during the first field season. The early sites that Roger hoped to find on the eastern remnant of the Bering Land Bridge did not materialize, and he returned to central Alaska. Unfortunately, the results of the 1977 survey in the northern Alaska Range were disappointing to the funding agencies, and they subsequently scaled back the project and shifted its focus to the geomorphic setting of Pleistocene sites in the region. This was a major setback for Roger, and he briefly entertained the idea of leaving archaeology altogether in 1981. However, he completed the Dry Creek report in 1983 and returned to small-scale survey and excavation in the Nenana Valley in 1984.

During 1984–1991, Roger and his students investigated several stratified sites in the Nenana Valley (including Moose Creek, Walker Road, and Panguingue Creek) containing Late Pleistocene and early Holocene occupation levels. In 1989, he published a paper in *American Antiquity* describing the results of the Nenana Valley research and defining a new archaeological complex of Late Pleistocene age (“Nenana complex”) that appeared to antedate the early microblade industry in central Alaska. In subsequent papers, he proposed a link between the Nenana complex and the early Paleoindian cultures of mid-latitude North America.

Throughout these years, Roger taught classes in archaeology and ethnography at the University of Alaska. He was a gifted teacher and his lectures were invariably interesting and entertaining. With his unique mode of expression and his sense of

➤ POWERS, continued on page 44

FRANCES BARTOS KING

1948–2003

Ethnobotany lost one of its productive practitioners in Tucson, AZ on April 2, 2003. Frances B. King was born in rural northern Minnesota near Grand Rapids on May 21, 1948. Growing up on a small farm in a mosaic of spruce, pine, and pastured openings, Fran developed an early appreciation for the land and its biota. This interest later influenced her to pursue a degree in biology, chemistry, and earth science at Bemidji State College, where she graduated with a B.A. degree, *magna cum laude*, in 1970. Upon graduation, she enrolled in the Geosciences graduate program at the University of Arizona-Tucson and two years later completed a Master of Science degree in Geosciences. During this time, while working with Al Solomon and Paul Martin at the University of Arizona's Desert Laboratory on Tumamoc Hill, she met her husband and soon-to-be lifetime companion, Jim King.

Fran joined Jim at the Illinois State Museum (ISM) in Springfield in 1972, where they were married soon thereafter. Fran was hired by the Museum as a Research Associate in Ethnobotany and quickly became a key member of the ISM's newly formed Quaternary Studies Center. She was soon integrated into two of the Museum's ongoing interdisciplinary research programs, one in the Truman Reservoir area of the western Missouri Ozarks and a second in the central Illinois Prairie Peninsula. In her early work, Fran assisted archaeologists by mapping the distribution and composition of pre-settlement vegetation as well as identifying potential food plants for the Missouri Ozarks and central Illinois. She also developed reference collections at the ISM for plant macrofossil and wood identification to aid in her analysis of plant remains from archaeological sites in the geographic areas described above. In 1978, Fran and Jim King solidified the ISM's role as a center for ethnobotanical research when they arranged for the large archaeobotanical collection assembled by Hugh Cutler and Leonard Blake at the Missouri Botanical Garden to be transferred to the museum. Fran later received NSF support to house and systematically curate this important collection, which represents much of the evidence for plant domestication and the evolution of cultigens in the New World.

During her 15-year tenure at ISM, 1972–1987, Fran King expanded her research universe to regions throughout the Midwest, identifying plant remains and cultigens from sites in Illinois, Missouri, Arkansas, Iowa, and Oklahoma. She became known for her work at deeply stratified sites such as Rodgers Shelter and Modoc Rock Shelter and sites in the Illi-

nois River valley, Sangamon River basin, and the Cannon Reservoir. She also analyzed plant remains from Arkansas for the Arkansas Archeological Survey. As part of the Quaternary Studies Program, she identified plant macrofossils from Wisconsin-aged organic deposits at Jones Spring in Missouri and Athens Quarry in Illinois. This Midwestern research culminated with her monograph *Plants, People, and Paleoecology*, which became a standard reference for archaeologists.

Fran's work with early cucurbits at Phillips Spring in Missouri led to professional recognition of her expertise with cucurbits.

She was an invited participant in the School of American Research Advanced Seminar on "The Origins of Plant Husbandry in North America," where she summarized the results of her research in a paper entitled "Early Cultivated Cucurbits in Eastern North America." But cucurbits were not her only specialty, for in 1987 she was awarded a Ph.D. degree in Agronomy at the University of Illinois, Urbana-Champaign, completing a dissertation evaluating the evolution of prehistoric maize in eastern North America.



In 1987, Fran left ISM when her husband, Jim, was hired as the Director of the Carnegie Museum of Natural History in Pittsburgh. This move opened new opportunities for her in that she was soon appointed to a position of Research Scientist at the Hunt Institute for Botanical Documentation at Carnegie Mellon University; she also served as a Research Associate at both the Carnegie Museum of Natural History and the University of Pittsburgh Department of Anthropology. Fran continued her work with plant remains from Midwestern sites as well as expanded her geographic reach by identifying plant remains from archaeological sites in Pennsylvania, New York, Ohio, West Virginia, and North Carolina. During this period, she summarized her research by contributing chapters related to the evolution of cultigens, prehistoric food production, and horticultural economies. A decade after their move to Pittsburgh, the Kings moved to Cleveland, where Fran became affiliated with the Cleveland Museum of Natural History as a Research Associate. It was in Cleveland that she also began an indexing business, working with several scientific publishers. She and her husband retired at the end of December in 2000 and a year later moved to Tucson, where she wanted to be as she battled a progressive illness. The move gave Fran and Jim the opportunity to make

☞ KING, continued on page 44



NEWS & NOTES

National Park Service's 2004 Archaeological Prospection Workshop. The National Park Service's 2004 workshop on archaeological prospection techniques entitled "Current Archeological Prospection Advances for Non-Destructive Investigations in the 21st Century" will be held May 17–21, 2004, at the Spiro Mounds Archaeological State Park in Spiro, Oklahoma. Lodging will be in Fort Smith, Arkansas at the Holiday Inn. This will be the 14th year of the workshop dedicated to the use of geophysical, aerial photography, and other remote-sensing methods as they apply to the identification, evaluation, conservation, and protection of archaeological resources. The workshop this year will focus on data processing and interpretation in addition to the more basic topics involving the theory of operation, methodology, and use of the equipment in the field. There is a tuition charge of \$475.00. Application forms are available on the Midwest Archeological Center's web page at <http://www.cr.nps.gov/mwac/>. For further information, please contact Steven L. DeVore, Archeologist, National Park Service, Midwest Archeological Center, Federal Building, Room 474, 100 Centennial Mall North, Lincoln, NE 68508-3873; tel: (402) 437-5392, ext. 141; fax: (402) 437-5098; email: steve_de_vore@nps.gov.

Two Grant Programs at The George C. Frison Institute. The George C. Frison Institute of Archaeology and Anthropology is announcing the fifth year of competition in two grant programs: one fostering research into faunal materials and the other focused on the Paleoindian period. The grants are designed to support pilot studies of extensive Paleoindian and faunal collections held at the University of Wyoming or to contribute to ongoing investigations if the proposed studies are critical to their completion. The George C. Frison Institute is dedicated to enhancing research into questions of Paleoindian archaeology and peopling of the western hemisphere, especially as Wyoming data bear on these significant research topics. Each grant will pay up to \$500 directly to the principal investigator. Deadline for submission is February 14, 2003. For more information and an application write to: Director, George C. Frison Institute of Archaeology and Anthropology, University of Wyoming, P.O. Box 3431, Laramie, WY 82071; email: PAYNE@UWYO.EDU; web: <http://uwadmnweb.uwyo.edu/anth/FRISON/Frison.html>. Last Years winners of the Frison Institute grants were Dr. Daniel S. Amick, Des Plaines, IL and Mr. Edward J. Knell, Pullman, WA.

ARCHAEOLOGICAL POLITICS, from page 5 ↩

tions and those of the Forest Service. Congress wanted to address all sourcing studies, so it attempted to include similar provisions in the Departments of Transportation and Treasury appropriations bill. Since the Treasury Department provides the funds that all government programs use, including such provisions in the bill would have effectively passed the mandates on to all sourcing studies. In addition, the bill provided for an appeals process for federal employees who came out on the losing side of a study.

But this is where the Administration put its foot down. The President threatened to veto the bill if it contained those provisions. After nearly three weeks of back and forth, and with members of Congress anxious to wrap up the appropriations process and return home for Thanksgiving, congressional negotiators gave the White House most of what it wanted. It removed the appeals process entirely. The ten percent/\$10 million rule was applied only to the Departments of Transportation and Treasury, and only then was one of several standards, or thresholds, by which a function could be outsourced.

So there are now different outsourcing standards for different departments and agencies of the federal government—ones for Interior and the Forest Service and ones for Treasury and Transportation. In some places, there are no standards at all. It is the result of a contest of wills and ideas between an Administration that places a very high priority on its initiative, and Congress, which seeks to maintain its traditional oversight role. ☐



POSITIONS OPEN

POSITION: TENURE-TRACK POSITION IN ARCHAEOLOGY

LOCATION: MANKATO, MINNESOTA

The Department of Anthropology at Minnesota State University, Mankato seeks candidates for a tenure-track faculty position in archaeology beginning August 2004. Ph.D. required, specialty in North America, ability to teach CRM, Arch of Upper Midwest, and summer field school. Potential for excellence in teaching, research, advising, and service. The candidate should be able to work with diverse populations, including recent immigrants, and be able to involve students in research and active learning. Ability to teach quantitative methods also desirable. Knowledge of computer applications in archaeology a plus. Review of applications begins January 7, 2004. Candidates should submit a letter of application explaining teaching and research philosophy, a CV, transcripts, and names and contact information of three references to Chair of Search Committee, Paul Brown, Department of Anthropology, Trafton N 358, Minnesota State University, Mankato MN 56001; or email: paul.brown@mnsu.edu

POSITION: ASSISTANT PROFESSOR OF ANTHROPOLOGY AND QUATERNARY AND CLIMATE STUDIES

LOCATION: ORONO, MAINE

The Department of Anthropology and the Climate Change Institute at the University of Maine seek to hire an entry-level tenure-track Assistant Professor of Anthropology and Quaternary and Climate Studies to begin in fall 2004. The successful candidate will teach three courses a year and maintain an ongoing

research program with external funding. Required qualifications: a Ph.D. in Anthropology with a specialization in North American prehistoric archaeology and expertise in material culture; experience directing archaeological fieldwork, and a willingness to develop an active field research/teaching program dealing with the pre-European period of Maine; excellence in research, publication, and teaching; and ability to collaborate with other Quaternary sciences. Preferred qualification: ability and willingness to teach a graduate-level course in method and theory in archaeology. Applicants should send a cover letter, a C.V., and the addresses of three referees to: Chair, Search Committee, Department of Anthropology, The University of Maine, 5773 S. Stevens Hall, Orono, ME 04469-5773. Review of applications will begin 3/1/04 and continue until the position has been filled. For additional information, visit our websites at <http://www.ume.maine.edu/~anthrop> and <http://www.climatechange.umeaine.edu>. The University of Maine is an EO/AA employer.

POSITION: ASSISTANT PROFESSOR OF ARCHAEOLOGY

LOCATION: FAYETTEVILLE, ARKANSAS

The Department of Anthropology, University of Arkansas, seeks to hire an archaeologist at the assistant professor level, beginning fall semester, 2004. This is a tenure-track position within a Ph.D.-granting program. Areas of expertise and geographic focus are open, but candidates should complement existing departmental strengths in social complexity, human ecology, material culture, landscapes, and global change.

Experience in GIS technology is desired. Send letter of application, CV, sample publications, and names of three references by January 26, 2004 to Search Committee, Department of Anthropology, Main 330, University of Arkansas, Fayetteville, AR 72701. The University of Arkansas is an equal opportunity, affirmative action institution.

POSITIONS: PROJECT MANAGERS AND PROJECT COORDINATORS

LOCATION: DIXON, CALIFORNIA

Tremaine & Associates, Inc., a geophysics-based archaeological firm, is seeking Project Managers and Project Coordinators for its expanding business. Qualifications: Applicants must have a Ph.D. or Masters in anthropology/archaeology, meet the Secretary of Interior Standards, and possess a firm understanding of state and federal laws. Seeking individuals with experience managing/supervising projects, interfacing with clients/agencies & Native Americans, writing proposals & reports, as well as directing field & lab work. Other desirable qualifications include practical experience using remote sensing technologies, GIS, and GPS. Contact: Send resume, writing sample, and cover letter to: Tremaine & Associates, Inc., 240 West E Street, Dixon, CA. 95620, Attn: John Lopez; tel: 707-678-2330; fax: 707-471-6502; email: jlopez@tremaine.cnrs.com.



CALENDAR

2004

FEBRUARY 14–15

The **Midwestern Conference on Andean and Amazonian Archaeology and Ethnohistory** will be held at the University of Illinois at Urbana-Champaign. Direct all inquiries to Helaine Silverman (email: helaine@uiuc.edu). The website is <http://www.anthro.uiuc.edu/faculty/silverman/04AndeanistConference.html>.

MARCH 6

Indigenous Ecologies and Sustainability: Humans and Landscape, Past and Present, the 2004 A. Watson Armour III Spring Symposium, will be held at the Chicago Field Museum. Join geographers, archaeologists, social anthropologists, geologists, historians, and environmental scientists in an open forum to better understand the role that past human activity has played in the formation of present-day environments and to identify the part that archaeology can play in deciding the course of modern-day environmental conservation. For more information, see <http://www.fieldmuseum.org/symposium>, or contact Tyana Wachter at wachter@fieldmuseum.org.

MARCH 31–APRIL 4

The **69th Annual Meeting of the Society for American Archaeology** will be held in Montreal, Canada. For more informa-

tion, contact SAA Headquarters, 900 Second Street N.E. #12, Washington, DC 20002; tel: (202) 789-8200; fax: (202) 789-0284; or email: meetings@saa.org; web: <http://www.saa.org>.

APRIL 14–17

The **73rd Annual Meeting of the American Association of Physical Anthropologists** will be held in Tampa, Florida. The call for papers is available at <http://www.physanth.org/annmeet/aapa2004/aapa2004call.pdf>. For more information, contact John Relethford, Department of Anthropology, State University of New York College at Oneonta, Oneonta, NY 13820; tel: (607) 436-2017; fax: (607) 436-2653; email: relethjh@oneonta.edu. For local arrangements information, contact Lorena Madrigal, Department of Anthropology, University of South Florida, Tampa, FL 33620; tel: (813) 974-0817; fax: (813) 974-2668; email: madrigal@cas.usf.edu.

APRIL 21–24

The **6th CINARCHEA Internationales Archäologie-Film-Kunst Festival** will be held in Kiel, Germany. This biennial festival and scholarly conference focuses on recent international productions about archaeology, previous international prize winners, notable older productions, and experimental archaeology. The theme of the sixth conference is "The Bog Mummy at Twilight—Flood of Emotion on Archaeological Film." For further information, contact Festival Director: Kurt Denzer, CINARCHEA, Breiter Weg 10, D-24105 Kiel, Germany; tel: (49.0431) 579.4941/4942; tel/fax: (49.0431) 579.4940; email: agfilm@email.uni-kiel.de; web: <http://www.uni-kiel.de/cinarchea/>.

MAY 4–9

The **5th AGON International Meeting of Archaeological Film of the Mediterranean Area** will be held in Thessaloniki, Greece. The biennial festival will focus on films completed after January 1, 2000 about Mediterranean archaeology from prehistory to modern times and documentaries about folk art and other endangered Mediterranean popular traditions. Award winners may be featured in additional programs in off years. Screenings will be held at the Olympion cinema. For further information, contact Maria Palatou, head of the Secretariat at AGON c/o Archaialogia ke Technes (Archaeology and Arts), 10 Karitsi Square, 102 37 Athens, Greece; tel: (30.210) 331.2990; tel/fax: (30.210) 331.2991; email: mpalatou@arxaialogia.gr.

JUNE 18–24

The **Third International Conference of the Center for Civilizational and Regional Studies** of the Russian Academy of Sciences will be held in Moscow on the topic "Hierarchy and Power in the History of Civilizations." For more information, contact Prof. Dmitri M. Bondarenko, Dr. Igor L. Alexeev, and Mr. Oleg Kavykin, preferably by email (conf2004@hotmail.com) or fax + (7 095) 202 0786. Postal mail can be sent to the Center for Civilizational and Regional Studies, Russian Academy of Sciences, 30/1 Spiridonovka St., 123001 Moscow, Russia; tel: + (7 095) 291 4119.

JUNE 20–28

The **7th Oxford International Conference on Archaeoastronomy** will be held in Flagstaff, AZ. The theme of this year's conference is "Cultural Influences in Astronomy: Bridging Archaeology and Astronomy." The objective is to bring researchers from around the world to present papers on cultural

astronomy and to explore how archaeoastronomers and anthropologists can work together to understand the evolution of science (particularly astronomy) within different cultures. The website for the conference is <http://www.lowell.edu/Public/ox7/index.html>. Deadline for abstracts is Jan 1 or until the oral and poster presentations are filled. Several different field excursions are available during the conference; registration forms are available at <http://www.nau.edu/dubois>.

SEPTEMBER 14–19

The 4th Iberian Archaeological Congress (IV Congresso de Arqueologia

Peninsular) will be held at the University of Algarve, located in Faro, Portugal. Full details can be found at <http://www.ualg.pt/fchs/IVCAP> or through email to cap@ualg.pt or nbi-cho@ualg.pt.

SEPTEMBER 23–26

The **Archaeological Sciences of the Americas Conference** will be held at the University of Arizona in Tucson, Arizona. This event is intended to encourage collaboration between archaeologists, conservation scientists, natural scientists, and contract researchers engaged in the development of archaeological science in the Americas. Ses-

sions will explore seven major topics: Catastrophes and Cultural Reaction, Geoarchaeology, Conservation Studies and Ephemeral Remains, Spatial Analysis and Remote Sensing, Chronometry, Human-Environmental Interaction, and Material Culture Studies. Deadline for submission of posters and presentation abstracts is January 31. An application form is available at: <http://w3.arizona.edu/~anthro/asa.shtm>. For more information, please visit our website or contact R. Emerson Howell at rhowell@email.arizona.edu

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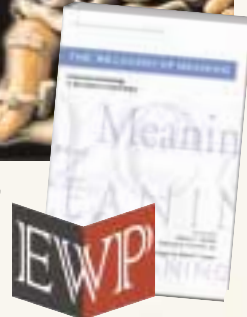
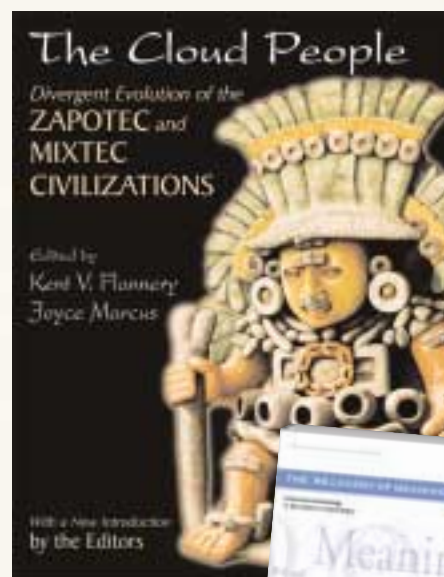
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IN MEMORIAM

POWERS, from page 38

humor, Roger soon became a Fairbanks campus character, and "Roger stories" became part of the oral tradition of the university. Roger served several tours of duty as departmental chair and, during his last year in Fairbanks, served as director of the Alaska Quaternary Center.

Although Roger's contacts with Russian colleagues had languished somewhat during the late 1970s, he eventually renewed them and returned to both European Russia and Siberia for teaching and research in the 1980s. In later years, Roger produced several particularly interesting papers on Holocene prehistoric connections between northeast Asia and North America.

Roger's sudden death in September 2003—coming at a relatively young age and only months after his retirement—was a profound shock to his friends and colleagues, who felt an acute sense of loss at the departure of such a vibrant and original person. His legacy as a scholar endures both through his writings and the work of his many students.

—John F. Hoffecker, G. Richard Scott, and Ted Goebel

John F. Hoffecker is a Research Fellow at the Institute of Arctic and Alpine Research at the University of Colorado, Boulder; G. Richard Scott is a Professor Emeritus of Anthropology at the University of Alaska, Fairbanks; and Ted Goebel is an Associate Professor of Anthropology at the University of Nevada, Reno.

IN MEMORIAM

KING, from page 39

many day trips by automobile to enjoy the desert sun and Sonoran vegetation that she had grown to love during her early graduate school days.

To some, Fran may have seemed reserved, but for those of us who knew her, she was a warm and thoughtful person with a sense of humor and an indefatigable spirit for accomplishing her goals. Only close acquaintances knew that she was truly a gourmet cook—we remember the excellent cuisine and liberal amounts of wine during dinners at the King household. In her 25 years of professional life, Fran compiled an impressive list of accomplishments. She was highly respected and will be missed by all who knew her. Fran King was the consummate professional, a valued colleague, and, most of all, a dear friend.

—R. Bruce McMillan and Bonnie W. Styles

R. Bruce McMillan is the Museum Director and Bonnie W. Styles is Associate Museum Director for Science & Education, Illinois State Museum.

Beginning in February 2004, *Latin American Antiquity* Will Be Available in JSTOR!



The Society for American Archaeology is pleased to announce the full-text, online version of *Latin American Antiquity* 1991–1998. To find out whether your library is a JSTOR participant, please email jstor-info@umich.edu. If you are not at a participating institution, as a current member you will be able to access **both** the *Latin American Antiquity* **and** *American Antiquity* archives for just \$25 per calendar year. Members who have already paid for *American Antiquity* access will be able to access *Latin American Antiquity* free of charge as soon as it becomes available in JSTOR.

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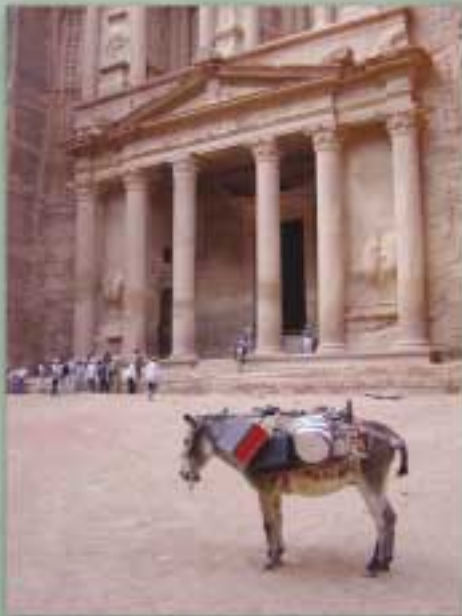
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FORUMS AT THE 69TH ANNUAL MEETING IN MONTREAL

THURSDAY MORNING, APRIL 1

President's Invited Forum, 11:00 am to noon

Theme: Cultural Transmission, Evolution, and the Practice of Archaeology

Participants: Robert Bettinger, Stephen Shennan, and Michael Schiffer

THURSDAY AFTERNOON, APRIL 1

Re-Examining Perspectives on the Emergence of Agriculture through Starch Grain Analysis

Organizers & Chairs: C. Rumold, and R. Dickau

FRIDAY MORNING, APRIL 2

Making Archaeology Teaching Relevant in the XXI Century:

<http://www.Indiana.edu/~swasey/matrix/home.html>

(Sponsored by the SAA Public Education Committee and SAA Curriculum Committee)

Organizer & Chair: K. A. Pyburn

SATURDAY MORNING, APRIL 3

Preparing For A Career In Archaeology

(Sponsored By SAA Student Affairs Committee)

Organizers & Chairs: D. Digrius, K. Lange

SATURDAY AFTERNOON, APRIL 3

Emerging Roles of Web-Accessible Archives in Archaeological Research

Organizer & Chair: J. Galle

SUNDAY MORNING, APRIL 4

How Should We Conduct Ourselves?:

Ethical Dilemmas in Archaeology

(Sponsored By Register of Professional Archaeologists)

Organizer & Chair: J. Altschul

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