



Dear SAA Member.

The SAA 7.5 Film Fest is coming to the 75th Anniversary Meeting in St. Louis, MO and I wanted to encourage you to submit a DVD for this exciting special event! Submitting a DVD is simple and the entry fee is only \$7.50, which includes one free Film Fest T-shirt! The top films will be recognized with awards at the Annual Business Meeting on Friday, April 16, 2010. Here is all you need to do:

- Make sure your video is less than 7.5 minutes in length, record it on a DVD, and place the title of your film and your name(s) both on the DVD case and at the beginning of the film.
- Mail your video along with a completed entry form (link to entry form) and your \$7.50 entry fee to the SAA office, ATTN: Meghan Tyler, no later than February 26, 2010.

All films will be viewed by a blue-ribbon panel of judges and those selected as finalists will be screened during the Friday Film Fest at the 75th Anniversary Meeting in St. Louis. Films can have a soundtrack in English, Spanish, Portuguese, or French.

Additional Information

- · Any DVD submitted will not be returned
- · By submitting a DVD you give SAA permission to screen, judge, and show the film at the 7.5 Film Fest
- · Submitting a DVD gives SAA explicit permission to post the film on the internet, should SAA decide to do so

Licensing and Copyright Permissions

- · If your film contains any music, you must provide SAA with proof that you have complied with licensing laws
- If your film contains any photos, images, or clips that you do not own, you must provide a copy of the required permissions to SAA
- If your film contains any recognizable individuals, you must provide a copy of the permission obtained from each individual to SAA

To submit your film now visit www.saa.org/filmfest

If you have any questions, please don't hesitate to email me or contact the SAA office at +1 202-789-8200.

Sincerely,
Bruce D. Smith
75th Anniversary Task Force Member
smithb@si.edu



The Magazine of the Society for American Archaeology
Volume 10, No. 1
JANUARY 2010

Editor's Corner	2	Andrew Duff
Letter to the Editor	3	Allen Dart
In Brief	4	Tobi Brimsek
More Reasons to Meet in St. Louis	6	Lisa LeCount and John Blitz
SPECIAL SECTION: ETHNOARCHAEOLOGY, PART II		Edited by Sharyn Jones
Ethnoarchaeology in a Personal Context	8	Jean Hudson
Observing the Past, Participating in the Present: Archaeologically Informed Ethnography	13	Susan Kus
Fire on the Mountain: Dignity and Prestige in the History and Archaeology of the Borada Highlands in Southern Ethiopia	17	Kathryn Weedman Arthur, John W. Arthur, Matthew C. Curtis, Bizuayehu Lakew, Joséphine Lesur-Gebremariam, and Yohannes Ethiopia
Ethnoarchaeology—Looking Back, Looking Forward	22	Diane Gifford-Gonzalez
The Need for Stewardship Training in Archaeological Field Schools	26	James M. VanderVeen and Jeanette Repczynski
Visually Reconstructing Middle Fraser Canyon Prehistory: Redefining a Process	29	Eric Carlson, Anna Marie Prentiss, Ian Kuijt, Nicole Crossland, and Art Adolph
The Unique Roles of ICOMOS and ICAHM in the World Preservation Community	34	Douglas C. Comer
Crises and Solutions in American Archaeology	37	Michael Shott
Should One Size Fit All? Some Observations on Killick & Goldberg	39	Geoffrey A. Clark
POSITIONS OPEN	43	

43

44

CALENDAR

NEWS AND NOTES



The Magazine of the Society for American Archaeology

VOLUME 10, No. 1 JANUARY 2010



The SAA Archaeological Record (ISSN 1532-7299) is published five times a year and is edited by Andrew Duff.

Deadlines for submissions are: December 1 (January), February 1 (March), April 1 (May), August 1 (September), and October 1 (November); send to Andrew Duff, *The SAA Archaeological Record*, Andrew Duff, Department of Anthropology, Washington State University, Pullman, WA 99164-4910, (509) 335-7828, or email duff@wsu.edu. Manuscript submission via email or by disk is encouraged. Advertising and placement ads should be sent to SAA headquarters, 900 Second St., NE #12, Washington, DC 20002, (202) 789-8200.

Associate editors include:

Gabriela Uruñuela [Exchanges, Mexico & Central America]

gabriela@mail.udlap.mx

Jose Luis Lanata [Exchanges, Southern Cone] illanata@filo.uba.ar

Anne Vawser [Government]

Anne_Vawser@nps.gov

Susan Chandler [Insights] susan_chandler@alpinearchaeology.com

Mark Aldenderfer [Interfaces]

aldender@email.arizona.edu

John Hoopes [Networks]

hoopes@ku.edu

Andrew Duff [Public Education]

duff@wsu.edu

Jamie Brandon [The Recent Past] jbrando@uark.edu

Kurt Dongoske [Working Together]

Kurt Dongoske [Working Tokkdongoske@cableone.net

Inquiries and submissions should be addressed directly to them. The SAA Archaeological Record is provided free to members and institutional subscribers to American Antiquity and Latin American Antiquity worldwide. The SAA Archaeological Record can be found on the Web in PDF format at www.saa.org.

SAA publishes The SAA Archaeological Record as a service to its members and constituencies. SAA, its editors and staff are not responsible for the content, opinions and information contained in The SAA Archaeological Record, SAA, its editors and staff disclaim all warranties with regard to such content, opinions and information published in The SAA Archaeological Record by any individual or organization; this disclaimer includes all implied warranties of merchantability and fitness. In no event shall SAA, its editors and staff be liable for any special, indirect, or consequential damages or any damages whatsoever resulting from loss of use, data, or profits, arising out of or in connection with the use or performance of any content, opinions or information included in The SAA Archaeological Record.

Copyright ©2010 by the Society for American Archaeology. All Rights Reserved.



EDITOR'S CORNER

Andrew Duff

Andrew Duff is an Associate Professor of anthropology at Washington State University.

his issue of *The SAA Archaeological Record* includes the second of a two-part group of articles on ethnoarchaeology, solicited by Sharyn Jones. The first four articles appeared in the November 2009 issue, and four more appear here. The pieces in this issue emphasize the place of ethnoarchaeology within the discipline, examined through personal reflection and the empirical contributions of different projects. Diane Gifford-Gonzalez's article provides her experience and perspective, and includes brief commentary on the collection of papers as a whole.

The remaining articles cover a variety of topics. VanderVeen and Repczynski highlight the need for explicit discussion of stewardship in field schools. Carlson and colleagues discuss their experiences creating illustrations based on archaeological information and data, and provide useful suggestions for those considering their creation and use. Comer provides the readership information about the International Council on Monuments and Sites and the International Committee on Archaeological Heritage Management. He also notes that additional members would be welcomed and that there is a vital role for our talents outside involvement with the SAA and other local or national organizations.

The last two articles were stimulated by an article that appeared last year—David Killick and Paul Goldberg's "A Quiet Crisis in American Archaeology" (*The SAA Archaeological Record* 9[1]:6-10,4 0)—that called for rethinking graduate training in archaeology, with an increasing emphasis on archaeological science and a de-emphasis of traditional anthropology (in addition to many other points). Shott and Clark each have different perspectives on Killick and Goldberg's suggestions, on trends in academic training, and of the future of archaeology as a field of scholarly inquiry. I attempted to solicit a wider series of contributions addressing these important questions from people with a range of experiences, but time is hard to come by for us all and I received no responses. As academic and agency budgets continue to be impacted by current or projected fiscal conditions, many individuals, departments and administrators are asking tough questions about resources, priorities, and what the future should look like. Discussions highlighting different perspectives and ideas about the discipline and its future strike me as particularly relevant to the membership of the Society, and the *The SAA Archaeological Record* continues to be an appropriate forum for these discussions.

As always, I welcome your ideas, thoughts, contributions, and news or calendar items. If you have material you would like to contribute, please send it me (duff@wsu.edu) or—if it falls within the scope of one of our topical columns—to one of the Associate Editors listed on the panel to the left.

Going Green?

In the last issue of The SAA Archaeological Record ("In Brief," November 2009), Tobi A. Brimsek described what the Society's staff has been doing to "go greener" and gives seven suggestions for how members can help the SAA in this effort. Given the relatively high cost of my annual membership dues I really appreciate the magazine editor's volunteer time spent in producing each issue of The SAA Archaeological Record and the Society's efforts to keep costs and resource usage down by going green. In response to Tobi's suggestions I would like to suggest another way in which the Society could go greener and reduce expenses: Go to an electronic publishing format for The SAA Archaeological Record magazine.

I am the Executive Director of Old Pueblo Archaeology Center, a 501(c)(3) not-for-profit organization whose mission is to educate children and adults to understand and appreciate archaeology and other cultures, to foster the preservation of archaeological and historical sites, and to develop a lifelong concern for the importance of nonrenewable resources and traditional cultures. Old Pueblo is an incorporated organization with a paid staff and a membership support program. As is the case with most nonprofits, we often have to beg for money and we must do everything we can to keep our costs down.

One of our most important public outreach avenues besides our website (www.oldpueblo.org) is the *Old Pueblo Archaeology* quarterly bulletin, for which we have a mailing list of about 1,000 addresses—presumably a paltry number compared to the SAA's mailing list. Until last year, each issue of our bulletin ran about twelve 8½ X 11-inch pages, used only two ink colors (black and dark red), and was printed in booklet format (spine staple-bound, same as the binding for *The SAA Archaeological Record*). We strove hard to keep our production

expenses down and we put our print jobs out to competitive bid regularly to keep the printing costs down. However, the print costs alone for publishing four issues of the bulletin per year were approximately \$10,000. Incidental expenses ran to an additional \$15,000 or so annually, mostly to pay one of our project directors to edit and produce each issue.

By June 2008 we had eliminated nearly all of these \$25,000 annual expenses with two cost-saving measures. First, archaeologist Dr. Eric J. Kaldahl, a former Old Pueblo employee who was elected to our Board of Directors after accepting a position elsewhere, offered to edit and produce the Old Pueblo Archaeology bulletin without pay, an offer that Old Pueblo immediately and gratefully accepted. Eric stayed on as editor for several issues, and was recently succeeded by archaeologist Dr. Douglas B. Craig, who also serves on Old Pueblo's Board and volunteers his time as editor. Second, Old Pueblo switched from print to electronic publication of our bulletin beginning in September 2008. This was not a decision made lightly. Recognizing that a few of our members still do not use email, and concerned that we would lose other members who simply preferred hard copies of the bulletin to an electronic publication, we offered our members an option of receiving a photocopied, black-andwhite, corner-stapled version of each bulletin issue.

I am delighted to report that nearly all of Old Pueblo's readers stuck with us through our change to electronic publication. Recently I checked our membership files and found that we have acquired email addresses for 84 percent of our memberships, and all but a few of our membership holders have consented to receive *Old Pueblo Archaeology* electronically via email instead of requesting printed-and-mailed copies of the bulletin. I conclude that if the SAA were to

go to an electronic magazine publishing format with a similar option for providing mailed copies to its few members who may prefer a printed version, the Society might be able to reduce its magazine printing costs by over 90 percent, considering that its per-issue printing costs probably are much higher than Old Pueblo's cost because the SAA magazine uses full-color printing. Surely such a move would result in a substantial dollar savings given that the SAA has several thousand members and so prints several thousand magazines five times per year.

To join in Tobi's call for members to help the Society go green and cut costs, I therefore request that the Society go to an electronic publishing format for *The SAA Archaeological Record* and no longer offer the full-color, booklet-printed version. At this time I am reluctant to suggest that the SAA go further green by converting *American Antiquity* to an allelectronic format any time soon; however, the Society needs to begin considering this option too if it is to contribute to a sustainable society in general and not just its own.

Allen Dart, RPA Tucson

Editors Note. SAA will be introducing a digital replica of The SAA Archaeological Record in January 2010. The replica will be available at the time the print version goes to press. The Society will email the membership to alert them when the replica is posted. It is planned that for the 2011 renewal period, members will be able to opt out of a paper copy of the magazine, should they so choose.

IN BRIEF

Tobi A. Brimsek

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

In Celebration... SAA's 75th Anniversary Meeting April 14–18, 2010

The Logistics

The meeting will be held at the America's Center (convention center) and the Renaissance St. Louis Grand hotel (the head-quarters hotel), directly across the street from the America's Center. The final program will detail the location of specific events.

For reservations, follow the links on SAAweb (www.saa.org) for the headquarters hotel— the Renaissance Grand St. Louis and for the student property—the Hampton Inn–Gateway Arch.

The Program

You can explore the breadth and scope of the meeting through the Preliminary Program which is posted on SAAweb (www.saa.org) and was dropped in the mail at the end of December

Unique Experiences

The 75th Anniversary Meeting will offer some unique experiences such as:

- 7.5 Film Fest
- · Anniversary Shindig
- Cahokia Mounds
- Premiere from The SAA Press of the new title, Voices in American Archaeology

Child Care

For the 75th Anniversary Meeting, SAA has contracted with Accent on Children's Arrangements Inc. to provide childcare throughout the meeting. Registration for the Camp SAA child care program is directly through the provider. For registration information, fees, and schedule, please use the following web link: www.accentoca.com/campsaa10

Abstracts...A New Perspective

Printed abstract books will no longer be offered. Instead, the abstracts will be available electronically to all on the public side of SAAweb approximately one month before the meeting. They will be posted in a searchable pdf format so that you may browse/print at your leisure.

On site, close to the Exhibit Hall, premiering at the 75th Anniversary Meeting will be an **Abstract Viewing Center** where you will be able to reference the abstracts at your convenience through a bank of computers provided for that purpose. The Society would like to thank the **Center for Desert Archaeology** and **Desert Archaeology Inc.** for its sponsorship of the new Abstract Viewing Center. Without their generous support, this would not have been possible.

Generosity through Sponsorship

A number of generous sponsors have come forward to provide special memorabilia for the 75th Anniversary Meeting:

Cultural Resource Analysts Inc. (registration bags)

SRI Foundation (badge lanyards)

Hartgen Archaeological Associates (pens)

Gray and Pape Inc. (note pads)

All attendees will receive these tokens of the 75^{th} Anniversary Meeting at Registration.

The Roundtable lunches have also been made affordable through the generosity of sponsors. This year, the table hosts have been selected from the authors of chapters in the anniversary volume, *Voices in American Archaeology*. The sponsors are:

Wendy Ashmore

Anonymous

South Carolina Institute of Archaeology

IN BRIEF

Teresita Majewski

Anthropology Department, Washington University - St. Louis

Archaeology of the Americas Digital Monograph Initiative

ASU School of Human Evolution and Social Change

Center for Archaeological Investigations, Southern Illinois University of Carbondale

Department of Anthropology, Santa Barbara Museum of Natural History

Frances Hayashida, Dept. of Anthropology, Univ. of New Mexi-

Gray & Pape, Inc.

Michigan State University - Department of Anthropology

Mississippi State University Cobb Institute of Archaeology

Panamerican Consultants, Inc.

Penn State Department of Anthropology

SHUMLA - Archeological Research and Education Center

Statistical Research, Inc.

The University of Alabama - Anthropology Department

UCLA Cotsen Institute of Archaeology

UCSB Anthropology

UNC Charlotte

University of Colorado at Boulder

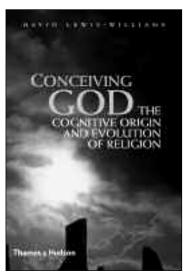
University of Utah

Washington State University - Anthropology Department

On behalf of the Society for American Archaeology, thank you to all of our sponsors who have helped enhance the experience of the 75th Anniversary Meeting celebration.

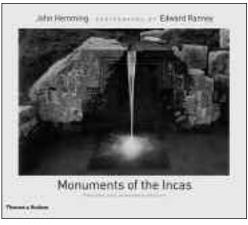
Have You Seen the New E-version of *The SAA* Archaeological Record? Check it out in the Publications Section of SAAweb (www.saa.org). The E-version will be available one week before the printed copy is mailed.

Hudson Thames



CONCEIVING GOD David Lewis-Williams

A controversial exploration of the origin and evolution of religion in the neurology of the human brain \$34.95 / 320 pages / 49 illus.



MONUMENTS OF THE INCAS Revised

John Hemming Photographs by Edward Ranney

A rich contribution to the understanding of Inca archaeology and architecture

\$45.00 / 240 pages / 205 illus.



MORE REASONS TO MEET IN ST. LOUIS

Lisa LeCount and John Blitz

Lisa LeCount and John Blitz are the program chairs for the 75th Anniversary Meeting.

he Preliminary Program for the 75th Annual Meeting in St. Louis, April 14-18, 2010, was mailed out to members in late December and posted on SAAweb earlier that month. The 2010 meeting may be the largest our organization has ever hosted. There will be more than 2,500 presentations distributed across 44 general sessions, 21 poster sessions, and 193 symposia, poster symposia, electronic symposia, and forums. This celebratory meeting requires 25 concurrent sessions every day, with Thursday evening and Sunday morning going prime time. Fortunately, there is plenty of meeting space, so we did not compromise the 30-minute breaks between sessions. This means there will be ample time for discussants to speak, but only if session chairs keep presenters to the 15minute time limit for each paper. Not only is the range of geographical, theoretical, and methodological topics unprecedented, but the special events of the 75th anniversary will ensure that everyone has reasons to attend. More reasons to meet in St. Louis include a large number of participants from Europe, Mexico, and South America, a thematic roundtable luncheon, and symposia celebrating distinguished colleagues. Here is a sampling of meeting highlights:

- The Opening Session: "Archaeology Now: Intersections of Theory, Method, and Practice in the 21st Century" (Wednesday evening).
- Several symposia that focus on the nearby World Heritage site of Cahokia, including "Cahokia 2010: Situating an Ancient Indigenous City in the World" (Thursday morning).
- SAA goes Hollywood with the 7.5 Film Fest, showcasing videos contributed by members in several categories. Get the entry form and submit your DVD by February 26, 2010. Finalist's contributions will be screened at the film fest and the winners announced at the Business Meeting (Friday). Envelope, please...and the winner is...
- Anniversary celebrations with cake, dancing, and other events (Saturday evening).

The Roundtable Luncheon returns to our meeting this year on

Friday. Sign up when you register. Roundtable discussants are contributors to the special 75th anniversary volume, *Voices in American Archaeology*. The topics and hosts are:

- "Communities and Collaborations" (Stephen Silliman).
- "Crossing Boundaries: A Perspective from the Americas Far South" (Jose Luis Lanata).
- "Eliminating Inequalities: Social Movements and the Practices of Archaeology in the United States" (Bob Paynter and Maria Franklin).
- "In the Public Interest: Changing the Stories We Tell" (Barbara Little).
- "Should Archaeologists Ever Be Social Activists?" (Larry Zimmerman).
- "NAGPRA and the SAA: Conflict, Accommodation, and the New Face of North American Archaeology" (Mike Wilcox).
- "Life on the Edge: Interdisciplinary Archaeology" (Jane Buikstra).
- "Is Trans-disciplinarity the Art of Displeasing Everyone?" (Sander van der Leeuw).
- "Sharing Our Voice: Publishing Archaeology in the 21st Century" (Mitch Allen).
- "Finding Our Voice: Writing Archaeology in the 21st Century" (Rosemary Joyce).
- "Are You Experienced? Preparing for a Career in CRM, Historic Preservation, and Beyond" (Jeff Altschul).
- "Likely Job Market Trends and Strategies" (Tom Patterson).
- "Future Connections, Future Communities" (Joe Watkins).

The Public Education Committee is sponsoring two forums: "Raising the Profile III: Increasing Protection for Archaeological Resources at the Local Level" and "Saving the Planet and Archaeology!" and two symposia: "Beyond the Brochure 2.0:



Gateway Arch/Riverfront at Sunrise. Photographer: Gail Mooney. Copyright © Gail Mooney. All Rights Reserved.

Public Outreach in Cultural Resources Management" and "Shifting from Object-Centered Research to People-Focused Application."

This year many distinguished colleagues will be honored. In addition to the regular awards and prizes announced at the Business Meeting, symposia will examine the contributions of E. Wyllys Andrews V, Lewis Binford, David Browman, James Brown, Margaret Conkey, William Dancey, Michael Glassow, Kenneth Hirth, Craig Morris, Michael Schiffer, and Phillip Walker.

We take this opportunity to thank the 2010 Program Committee members: Carolyn Boyd, David Carballo, Detlef Gronenborn, John Kelly, Elizabeth Klarich, Sandra Lopez Varela, Teresita Majewski, Augusto Oyuela-Caycedo, John Rissetto, Monica Smith, Amber VanDerwarker, Mark Varien, Gregory Wilson, and Lori Wright. They did a great job organizing sessions.

May you meet them and many others in St. Louis!



ETHNOARCHAEOLOGY IN A PERSONAL CONTEXT

Jean Hudson

Jean Hudson is an Associate Professor in the Department of Anthropology at the University of Wisconsin-Milwaukee.

hat follows is a personal and perhaps slightly historical, though certainly not comprehensive, meander through a couple decades of ethnoarchaeology. My first experience doing ethnoarchaeological research was among a modern forager group in the Central African Republic, the Aka. I spent a little over a year with them in 1986–1987, living in camps, going on net hunts, observing and asking questions about how game animals were captured, butchered, and shared, and excavating and quantifying the animal bones left behind. My most recent experience was with reed boat fisher families on the north coast of Peru in 2001–2004, observing and quantifying fishing activities and family dynamics. My interests remain centered on how ethnoarchaeology can improve our zooarchaeological interpretations of hunter-gatherer-fisher lifeways of the past.

In the 1980s, when I was graduate student at UC Santa Barbara, ethnoarchaeology was something new and exciting, and one would occasionally see tenure-track job announcements seeking someone with that expertise. I remember thinking I had died and gone to heaven when I first read Yellen's (1977) Archaeological Approaches to the Present. It was the type of logic I had been looking for: start with a clear and relevant archaeological question, take it to a relevant living group of people, observe the links between specific human cultural behaviors and their material residues, and then see what analytic methods would best capture that link. It was Binford's middle-range theory brought to life. Anthropology's traditional subfields merged in a fascinating and productive way, you could participate and observe, you could ask people what they did and why, you could excavate what they left behind and think creatively about which archaeological measures worked, and which did not, and why. It was a perfect loop of question, test, rethink, question again, test again. At that point I had just labored through the zooarchaeological quantification of a faunal assemblage from a California forager site as part of my Master's. Grayson's (1984) Quantitative Zooarchaeology had just hit the press, making it clear

that all our efforts at quantifying archaeological bone were flawed. I was wrestling with archaeological angst. How could we ever hope to know if any of our interpretations of the past had any relevance, if any of our analytic techniques did a decent job of capturing the behaviors we hoped they measured?

Ethnoarchaeology seemed the answer. There were exciting things to read when it came to the intersection of ethnoarchaeological research, hunter-gatherer life, and zooarchaeological remains. Yellen's work with the Dobe !Kung was a prime example, with his clear articulation of what he termed the "laboratory approach" to using ethnography to aid archaeology:

The ethnographic present, in a loosely defined way, provides the archaeologist with a set of controlled or "laboratory" conditions within which he can evaluate and sharpen his own analytic techniques... Direct observation of an ongoing society permits one to correlate activities... with material byproducts... In such a controlled context, analytic methods themselves may then be put to the test [Yellen 1977:11].

Given the modern tendency to quiver at the word "laboratory" when applied to living people, I should emphasize that this approach does not treat fellow humans as laboratory cases—it simply relies upon their expert knowledge of how to do things and their years of experience. It is also important to note that ethnoarchaeology in no way assumes that any living peoples are frozen relics of the past. The discerning reader will note the emphasis is on particular activities and how best to measure their material signatures; ethnoarchaeology neither ignores the cultural specifics that provide the context, since these are critical to understanding cause-effect links, nor does it rely upon the gestalt of the entire lifeway to make a correlation. The present is not the past, it merely provides a key to it.

Binford's Nunamiut Ethnoarchaeology (1978) was another inspirational example of early ethnoarchaeological research. Many of the quantification methods he experimented with have since been simplified in ways that make the application to archaeological data easier (Metcalf and Jones 1988) or that increase the visibility of robust patterns (Stiner 1991), but the key concept behind MNE and MAU remains brilliant people make important decisions about parts of animals, not just whole animals. This notion of body parts as analytic units and transport as an important aspect of huntergatherer decision-making provoked an array of ethnoarchaeological studies. O'Connell (e.g., O'Connell et al. 1988) and Bunn (e.g., Bunn et al. 1988) both studied among the Hadza of Tanzania and their sometimes divergent results led to new insights about what mattered both in the human decisions and in how we measured them zooarchaeologically. In 1991 I had the pleasant job of gathering these and other ethnoarchaeologists, as well as scholars working on more experimental and taphonomic approaches to bony issues, together for the CAI Visiting Scholar's conference and resulting volume From Bones to Behavior (Hudson 1993).

The ethnoarchaeological literature on foragers and animal remains has expanded in many directions. David and Kramer (2001) review general patterns of research in these subareas. Bird and O'Connell (2006) provide a recent review of those linked to behavioral ecology. The forager literature often cites wonderful examples, such as those seen in the Kyoto University African Study Monographs and various CHAGS (Conference on Hunting and Gathering Societies) proceedings, or scattered among recent Oxbow zooarchaeology volumes. Regionally specific volumes produce any number of gems, such as those in Kuznar's (2001) Ethnoarchaeology of Andean South America. At the most recent ICAZ (International Council of Archaeozoology) meetings Umberto Albarella organized a session on Ethnozooarchaeology, coining a term that explicitly merges those two methods, and an edited volume of those proceedings is expected out soon under that title. I will return to issues of what ethnoarchaeology is and can be, but first a few digressions into my own experiences.

Ethnoarchaeology with the Aka

In 1986, with funding support from the Leakey Foundation and the University of California, and practical advice from Barry Hewlett, who had been studying Aka parenting (Hewlett 1991), and Jack Fisher and Helen Strickland, who had been doing ethnoarchaeology with Efe foragers in a different part of Africa (Fisher and Strickland 1989), I set off for 13 months with the Aka. My goal was simple and clear. I



Figure 1. Occupied Aka net-hunting camp.

wanted to live in a series of hunting camps, from their first day of occupation to their last, quantify the game coming in, and then excavate each camp after it was abandoned to recoup the animal bone.

I remember that year as one of the most challenging, exciting, and rewarding of my life. The Aka were extraordinarily accepting of my adding a tent to their camps. Their observation of my daily life was probably keener than mine of theirs, and they certainly found many of my behaviors humorous. What hunter lets the duiker go after she's grabbed its horns and pinned it? What woman climbs a tree? Who in their right mind would give part of their dinner to a dog? Never mind returning to abandoned camps to clean them of their garbage, wash all the bones and ink numbers on each one. More telling were the times I transgressed the basic rules of



Figure 2. Ethnoarchaeological mapping at abandoned Aka camp.

human sharing by not graciously giving half of what I had, or by trying to stockpile food or water as though it belonged to me. Those experiences merged with my original research objectives and led me to add another methods test to my goals: what zooarchaeological analytic techniques would best capture the patterns of food sharing? If you let MNI's "weakness"—that different values will be produced depending on how you split or group your analytic provenience unitswork for you by comparing the sum of household MNI's with the single site-wide MNI, you end up with an MNI index of sharing. It works quite well with the Aka ethnozooarchaeological data (Hudson 1990a). As I found with all the zooarchaeological measures applied to the bones recovered from Aka camps (Hudson 1990b), we can have greatest confidence in our interpretations when the patterns are robust—rank order measures are stronger than those reliant on small differences in percentages, a higher MNI index is more secure than a slight one.

Ethnoarchaeology with Peruvian Reed Boat Fishers

Many a good thing comes from the generous easy-going hosting that field archaeologists are so apt to provide a visiting colleague. In the summer of 2000 Brian Billman and his wife Laurie invited me to toss my sleeping bag in a spare room at their dig house in northern Peru. I woke early, looked out the window at the Pacific Ocean, saw the reed boats (caballitos de totora) paddling through the fog, and knew what I wanted to do for the next few years. I had spent the previous several years analyzing animal bone from a south coast site, working through the evidence for ecological balancing acts between fishing, fowling, and sea mammal hunting during the Archaic. What could be more satisfying than working with reed boat fishers to see what species were caught with which fishing techniques and how much surplus a fishing family could produce? With reed boats I could bypass the complications of trying to use motorized fishing to model prehistoric patterns. Four years later I had catch data that sampled multiple seasons and years and included netting and hook-and-line, from reed boat and from shore. I could answer some of my original questions about zooarchaeological signatures for different fishing techniques and how much labor would be needed to produce the steady surplus hypothesized by the Maritime Foundations model for prehistoric coastal political complexity. Even though modern fisheries are seriously over-fished by international fleets, the local reed boat fishers could harvest a surplus well beyond the needs of immediate subsistence.

As with the Aka case, I learned far more than I intended, and it was the social factors that were most thought-provoking.



Figure 3. Ethnoarchaeological approaches to Peruvian reed boat fishing.

Fishing proved to involve far more than the solo paddler of the reed boat. He was part of an extended family team that shared labor and pooled results, splitting up responsibilities by age and sex. Fathers and sons and son-in-laws, brothers, grandfathers and grandsons might team according to the fishing technique. Multiple forms of fishing might easily be pursued in a single day. Women not only met the reed boaters when they returned and took over the beach-side responsibilities of cleaning the catch and preparing the family meals, they were also the marketing arm of the family, transforming the surplus catch into a variety of other needed commodities, sometimes through complex networks of other women. Age played an interesting role, with older men key in the making of new reed boats and maintaining the nets, while younger men braved the surf to paddle the boats in and out. The family dynamics made me think about zooarchaeological approaches. What new questions about changing patterns of social life could I answer if it were possible to conduct my faunal analyses at the household level, rather than by the more typical site-wide stratigraphic component or systematic random sample?

What is Ethnoarchaeology? What Might We Do With It?

Ethnoarchaeology has been defined in various ways. I prefer a rather simple definition—ethnoarchaeology is ethnograph-

ic research done to answer archaeological questions. Ideally the fieldwork is done by archaeologists, since we have a deeper understanding of what material remains are likely to be recoverable and can design the fieldwork to address archaeologically inspired research questions. I am a great fan of participant-observation over a length of time that matches the question. I recognize that long periods of immersion in other peoples' lives are not always easy to achieve. When it is possible, the additional insights can be very rewarding, as can the deeper personal connection with the people whose experience you are sharing, but there are many archaeologically useful things that might be learned in short, focused studies.

What are some of the most common critiques of ethnoarchaeology? Aside from those mentioned above, which I find simplistic and undiscerning—that the modernity of living peoples must render them useless for modeling any past behaviors—two others are often discussed: a preoccupation with cautionary tales and a failure to bring the results fullcircle and make them applicable to purely archaeological studies. These last two are related. It often takes a long time to gather ethnoarchaeological data, and the first step in publishing them may focus on either rich description or immediate cautions about existing archaeological assumptions that appear contradicted. But the second step-offering more positive results about analytic methods that do work well and explaining why, so the archaeologist can apply them in relevant and intelligent ways—is certainly do-able. Yellen gave us concrete techniques to apply to forager camp spatial analysis. Binford gave us a new focus on body part distribution (1978) and later a grand set of synthetic models for forager subsistence and settlement (2001). It is not a matter of the limit of ethnoarchaeology as a method, only a matter of the researcher's commitment to take that second step, and patience for the time that effort sometimes takes.

Does ethnoarchaeology need a single unifying theoretical framework? O'Connell (1995) has argued for the value of behavioral ecology and while I respect its utility for some types of questions about human behavior in the past, I think ethnoarchaeology, like zooarchaeology, is an analytic method that can make important contributions to many other kinds of research questions as well. Sue Kent conducted, inspired, and brought together for publication quite a number of useful ethnoarchaeological studies (e.g., Ashmore et al. 2006; Kent 1987), and I doubt very much she would ever have pledged allegiance to behavioral ecology.

Is Yellen's "laboratory approach"—focused on testing and improving specific archaeological methods—the only way to

profit from ethnoarchaeology? While I favor that approach, I see many other productive applications. Ethnoarchaeology can be valuable at the level of new insights about human behavior and the development of new research questions. A year with the Aka put sharing behaviors at the top of my list of research questions and subtly changed my focus on prehistoric life, peopling it with families and communities. Multiple seasons spent observing Peruvian fishing families increased my understanding of how complexly division of labor can work and the flexibility of what defines a family. The archaeological literature on foragers continues to be heavily weighted toward modeling the decisions and actions of men; that bias becomes more apparent when doing participant-observation and watching the constant interdependence of the roles of men and women, adults of various ages, and children.

As an archaeologist whose favorite prehistoric lifeways are those lived in camps and small villages, I would love to see a great many more people learned from before they slip into urban life. The world is still full of villages and there are camps out there too, just as there are many people living with greater investment in what they can do with their own physical energy than with the industrialized alternatives. There are people who know how to build and live in houses with dirt floors, who routinely cook at the family hearth, who make choices about which animal to cull from the family herd or when to fish or where to trap, who can work a bone into a familiar tool or ornament. There are communities knit together by established patterns of reciprocity and exchange between families, and families who divide labor by age and sex and share the meals that result. In my daydreams I see an adventuresome, clear-thinking cadre of graduate students spread out across the globe to tackle some of these opportunities while they still exist.

References Cited

Ashmore, Wendy, Marcia-Anne Dobres, Sarah Milledge Nelson, and Arlene Rosen (editors)

2006 Integrating the Diversity of Twenty-First-Century Anthropology: The Life and Intellectual Legacies of Susan Kent. Anthropological Papers of the American Anthropological Association, No. 16. American Anthropological Association, Arlington, Virginia.

Binford, Lewis R.

1978 Nunamiut Ethnoarchaeology. Academic Press, New York.

2001 Constructing Frames of Reference. University of California Press, Berkeley.

Bird, Douglas W., and James F. O'Connell

2006 Behavioral Ecology and Archaeology. Journal of Archaeological Research 14:143–188.

ETHNOARCHAEOLOGY, PART II

Bunn, Henry T., Laurence E. Bartram, and Ellen M. Kroll

1988 Variability in Bone Assemblage Formation from Hadza Hunting, Scavenging, and Carcass Processing. *Journal of Anthropological Archaeology* 7(4):412–457.

David, Nicholas, and Carol Kramer

2001 $\it Ethnoarchaeology in Action.$ Cambridge University Press, Cambridge.

Fisher, John, and Helen Strickland

1989 Ethnoarchaeology among the Efe Pygmies, Zaire: Spatial Organization of Campsites. *American Journal of Physical Anthropology* 78(4):473-484

Grayson, Donald K.

1984 *Quantitative Zooarchaeology.* Academic Press, New York. Hewlett, Barry S.

1991 Intimate Fathers: The Nature and Context of Aka Pygmy Paternal Infant Care. University of Michigan Press, Ann Arbor.

Hudson, Jean

1990a Identifying Food Sharing Archaeologically, An Ethnoarchaeological Study among the Aka. In Precirculated Papers, Sixth International Conference on Hunting and Gathering Societies, Volume II: 616-631. University of Alaska, Fair-

1990b Advancing Methods in Zooarchaeology: An Ethnoarchaeological Study among the Aka. Ph.D. Thesis, University of California, Santa Barbara. University Microfilms International, Ann Arbor, Michigan. Hudson, Jean (editor)

1993 From Bones to Behavior. Center for Archaeological Investigations, Southern Illinois University at Carbondale.

Kent, Susan (editor)

1987 Method and Theory in Activity Area Research: An Ethnoarchaeological Approach. Columbia University Press, New York

Kuznar, Lawrence A. (editor)

2001 Ethnoarchaeology of Andean South America. International Monographs in Prehistory, Ann Arbor.

Metcalf, Duncan, and Kevin T. Jones

1988 A Reconsideration of Animal Body-part Utility Indices. *American Antiquity* 53(3):486–504.

O'Connell, James F.

1995 Ethnoarchaeology Needs a General Theory of Behavior. Journal of Archaeological Research 3(3):205–255.

O'Connell, James F., Kristen Hawkes, and Nicholas Blurton Jones 1988 Hadza Hunting, Butchering, and Bone Transport and their Archaeological Implications. *Journal of Anthropologi*cal Research 44(2):113–161.

Stiner, Mary C.

1991 Food Procurement and Transport by Human and Nonhuman Predators. *Journal of Archaeological Science* 18:455–482.

Yellen, John E.

1977 Archaeological Approaches to the Present. Academic Press, New York.

GIFFORD-GONZALEZ, from page 25

Stark, Barbara L.

1985 Archaeological Identification of Pottery Production Locations: Ethnoarchaeological and Archaeological Data in Mesoamerica. In *Decoding Prehistoric Ceramics*, edited by B. A. Nelson, pp. 158–194. Southern Illinois Univ. Press, Carbondale.

Watson, V. D.

1995 Simple and Significant: Stone Tool Production in Highland New Guinea. Lithic Technology 20(2):89–99.

Wylie, Alison

1982a An Analogy by any other Name Is Just as Analogical: A Commentary on the Gould-Watson Dialogue. *Journal of Anthropological Archaeology* 1(14):382–401.

1982b Epistemological Issues Raised By a Structuralist Archaeology. In Symbolic and Structural Archaeology, edited by I. Hodder, pp. 39–46. Cambridge University Press, Cambridge.

1985 The Reaction Against Analogy. Advances in Archaeological Method and Theory 8:63–111.

1989 Interpretive Dilemma. In Critical Traditions in Contemporary Archaeology, edited by V. Pinsky and A. Wylie, pp. 18–27. Cambridge University Press, Cambridge.

Yellen, John

1977 Archaeological Approaches to the Present: Models for Reconstructing the Past. Academic Press, New York.

OBSERVING THE PAST, PARTICIPATING IN THE PRESENT

ARCHAEOLOGICALLY INFORMED ETHNOGRAPHY¹

Susan Kus

Susan Kus is a Professor in the Department of Anthropology and Sociology at Rhodes College.

am of the generation to have been nourished on the tenets of the four-field approach, and I have never been weaned. I have found in my Ph.D. in *Anthropology*, and I have found in the mantra of four- (now five, and even sometimes six) field approach, an incredible source of sustenance in pursuing cross-*sub*-disciplinary endeavors. Call me a remnant of the twentieth century, if you will, as Wikipedia suggests.² Yet, I continue to find edification in anthropology's allegiance to the conundrum of participant-observation in alternative realities, realities that include those of the longgone past.

There is little time here to rehearse the experience that many of us have had as students of archaeology, despite differences in generational ranks. When my age-grade was reminded that "archaeology is anthropology or it is nothing," we took to classes on all possible themes from kinship to high theory. To the astonishment of our "cultured" professors, we did well, often very well. I suspect that the situation has not changed dramatically, neither changed in the seriousness on our parts to move beyond our subdisciplinary specialty, nor changed in the astonishment of our professors. What we take as sustenance from the larger discipline to use in our own endeavors as archaeologists is fascinating, but what we bring in return from our studies to nourish the larger discipline is equally significant. Yet, what we archaeologists have to offer to the larger discipline is sometimes seriously underappreciated.

The Challenge of Materiality

It goes without saying that one either loves or hates Binford's prolegomenon of middle-range theory, a credo that includes ethnoarchaeology. Perhaps we are now of a generation that has moved beyond this personalized moment in the history of prehistory, but indulge me for a moment. I still have vivid imaginings of Binford traveling from France to the States

with trunks of statistics on paper generated at the dawn of the computer age. I am in awe of his consequent decision to take to the field as an "ethnographer" working with the Nunamiut (e.g., Binford 1983). I find poetic pause in (at least) two profoundly material moments of his research: (1) the discovery of the expanse of space the Nunamiut knew/know and roam/ed, an experiential palimpsest of many intimate dense layers of knowledge acquired as individuals and passed down to other individuals, and (2) the elegant technological haiku of the Nunamiut tool repertoire.

The early version of middle-range theory was of a particular materialist brand; consequently, the poetry of ethnoarchaeological encounters was submerged in the prose of a materialism that was a remarkable offensive advance, and at the same time, a defensive entrenchment within the larger discipline of anthropology. Giving priority to "materiality" in theory, archaeology (re-)claimed its place at the disciplinary table. Yet, as a consequence, the prehistoric and historic others in archaeological recounting were determined by technological and environmental imperatives, and/or were expedient ecological rationalists, and/or were either powerless casualties or ruthless power players in struggles for material resources. It was a time when archaeologists used ethnography to selectively inform archaeology, and ethnography's many lacunae were filled in by ethnoarchaeologists; filled in scientifically by mapping, counting, weighing, x-raying, bombarding, and (more to my taste) sensuously by crafting, holding, using, breaking, chopping, etc. Yet it was and still is a time when many archaeologists, by force of circumstance of working with and among indigenous populations, lived and continue to live many ethnographic moments.

What We Have Learned and What I Have Learned as a Cross-disciplinarian

Working as an underdog with underdogs of present state

societies in an attempt to understand underdogs of past state societies, I have come to appreciate the quality of the astute observations and analyses that contemporary underdogs have of their situations (Kus 1997). In sustained brushes with the quotidian of the Betsileo of the highlands of Madagascar, I have come to appreciate how the private *is* the political (e.g., Kus and Raharijaona 2000).

My first intentional encounter with "ethnoarchaeology" came when the late Susan Kent asked if I would like to contribute to a volume on domestic architecture (Kent 1990). It was at a time when interest in the "symbolic" was difficult in the discourse of the "New Archaeology," but I thought that I had cleverly located a terrain wherein the symbolic could become a legitimate problem focus. This was in the symbolic organization of public space and monumental architecture, and in the observation that so much material, physical and intellectual labor in early states was directed toward the crafting of weighty material symbols and state propaganda. I supposed that the arena of domestic organization of space would serve as an interesting complement to the monumental, so I decided to devote a bit of time from a summer of archaeological survey to try my hand at ethnoarchaeology. I went into the field looking for vestiges of traditional practice and expecting not to learn much beyond the "facts" that every ethnographer knew about the symbolic layout of domestic space in the highlands of Madagascar. Everyone knows that the house of the highlands is oriented north-south; that the cardinal directions come with associations that compare and contrast the noble with the humble and the sacred with the dark and ambiguous; that the central pillar of the house plays an important role in local ritual, etc. I suspected I would find a Malagasy version of feng-shui, formulaic and light. But along with my co-researcher (V. Raharijaoana), we came to find a tenacious tradition, viable not because of blind, conservative orthodoxy, but rather because of active recreation of the "tradition" by ritual specialists who remained faithful to the spirit of, rather than to the letter of the law.

Faithfulness to the spirit of the law on the part of gifted ritual specialists pushed me to explore how this *re*-creation of tradition was accomplished. This ethnoarchaeological encounter forced a reassessment of my understanding of "the symbolic" by looking at it through the lens of "the science of the concrete," informed by an appreciation of sensuous human practice. There are many attractive and enticing pieces of theoretical vocabulary, from "embodiment" to "bricolage," that offer archaeologists the possibility of grappling with our individual problem foci. Yet, it is by force of working in the countryside among the Betsileo that I have

come to underpin my choice of vocabulary with a conviction based on the details of those encounters, details of observed daily and ritual practice, and details of the discourse of masters and mistresses of trope.

One initial result from the sustained encounter with ritual specialists and observations on Betsileo domestic space was the rephrasing of my research question. No longer was my exclusive focus on the blinding aw(e)ful(l)ness of palaces and pyramids. I have come to understand the powerful grounding, both material and experiential, of local symbols and worldview. As a consequence I have come to understand that the wresting of symbol and metaphoric logic from the local to put it to use in service of state propaganda is neither gratuitous nor fortuitous. I have also come to seriously entertain Gramsci's understanding of hegemonic struggle as a "war of position" (of belief and discourse) taking place alongside the more familiar "war of maneuver" (for control of resources and institutions) that we have traditionally investigated in the domain of the explicitly political and economic.

Archaeologists once awakened to theory have proven to be hearty, unashamed theoretical bricoleurs—how marvelous! Whereas, a classic materialism was the first (and sometimes too enduring core) of theory in archaeology, we have now come to appreciate and take up the challenge of how materiality is a nontrivial dimension of the symbolic. Yet, that challenge needs ethnographic underpinning to assess and appreciate it. Let me use a concrete example from my explorations as an ethnographer to clarify this last point by returning to the Betsileo region of central Madagascar to look at the issue of the "re-creative" labor on the part of ritual specialists, Mpanandro (Makers of Days). Their labor guarantees the tenacity of tradition concerning the construction of houses and tombs. In order to understand the symbolic labor of Mpanandro, we need to appreciate several things. First, their labor is powerfully redundant across multiple domains (e.g., directional orientation, placement of objects in space, timing of inaugural elements of construction). This redundancy is not so much a litanic drone, but rather an edifying refractive reminder of a Betsileo core cultural principle: life is to be fostered and death kept to its proper domain. Second, the labor of the Mpanandro is symbolic labor that involves the play of tropes (across person, gender, language, objects, gesture, landscape, etc.) not only reinforcing tradition, but allowing innovations and reinterpretations to sustain tradition. Third, we need to understand that the symbolic is not just the sonorous arbitrariness of the association of signifier to signified, it is also the resonant materiality of the iconic and indexical; the symbolic of sustained sensuous engagement.

To properly orient a house within the changing forces of space and time the Betsileo *Mpanandro* not only decide on the who (e.g., an individual whose parents are both living), the when (e.g., the appropriate hour of the appropriate day of the appropriate month of the appropriate year), and the where (e.g., orientation and locale) of laying out of a house, but also about symbolic accoutrements to plant to foster life and to bury to protect a family from malfeasance. A central piece of this symbolic tableau is the orientation of the central beam of the house, a piece that I want to examine to allow us to understand an imbroglio of trope across the materiality of index and icon.

The Betsileo house is oriented north-south, but this orientation is not of strict compass direction. The central beam of the house needs to be oriented to a tanjom-belona—a "life orienting target/point" (Figure 1). Identifying a tanjom-belona within a landscape is anything but formulaic. Most individual adult Betsileo can easily generate a list of what NOT to orient the tanjom-belona to: not to boulders that drip water (reminiscent of tears), not to tombs or abandoned villages, not to valleys that draw one into a void, or to flyways of birds that suggest chaos, etc. But it takes a specialist to identify an effective tanjom-belona. One might naively assume that a tanjom-belona should be oriented to the highest point on the landscape. That would be a mistake of a poetaster. From the highest point there is only the suggestion of downward movement. Consider rather the following landscape moment (Figure 2). The point demarcated is the tanjombelona of the house of one ritual specialist. It is an artist's appreciation of the landscape, a moment of secure pause on the landscape. Once your eyes are momentarily arrested at that point of constancy, then your vision is drawn upward. That is a "[scientist] poet of the concrete's" understanding of landscape; what I imagine was characteristic of the practice of the Mpanandro when houses were allowed freer situatedness in the territory. But with French colonial rule, isolated households on heights were outlawed and village of "ten [or more] roofs" were to be established along new arteries of controlled movement. So what of the houses now forced into the submissive space of colonization and modernization? They too need tanjom-belona. Look at the following landscape (Figure 3). Not as photogenic or poetic as the previous view. Yet, herein lays the spirit of the law and the poetry of icon and index. The tree, as one ritual specialists explained, is a tree that survived the creation and continuing resurfacing of a road between a regional capital and a secondary market town; a tree that survives the dust and fumes of a major traffic flow, a tree that survives the incessant need for firewood. This is a tree that is icon and index of an orientation of life. Today, walking on that same road it is difficult to distinguish



Figure 1. The orienting of the central beam of the new house of a ritual specialist (1) and his wife (2).

this *tanjom-belona* among "restored" vegetation; this is a further testament to the acuity of the original orientation.

What are the "take away" points here given space constraints?

- Ethnographic experiences continue to remind me to not two-dimensionalize the prehistoric other; hapless nonelite victims of other states are not necessarily witless victims.
- Their "wit" is one of trope, of metaphor steeped in material engagement with their world. We archaeologists should not forget that the domain of the symbolic is one



Figure 2. The point on the landscape that serves as the "life-orienting target" of the house of a ritual specialist.



Figure 3. The tree that serves as the "life-orienting target" of the house of another ritual specialist.

not only of the abstract sign, but also one of the materiality, sensuality, and affectivity of icon and index.

 Careful and powerful choice of abstract theoretical vocabulary should be grounded both in the materiality of archaeology and in the materiality of ethnographic experience.

Some have spoken of hybrid scholarship to qualify research that escapes the frame of traditional subdisciplinary and disciplinary boundaries. I see such scholarship as owing allegiance to a problem focus rather than a disciplinary specialty. Yet, with that said, training as an archaeologist brings important sensitivities. There is the sustained cultivation of an appreciation of the "deep alterity" of many ways of being in the world that precede contemporary times and these should find their way into the discourse of the larger discipline as a whole. Archaeologists continue to come to the table as materialists but now equipped to dismantle the old dichotomy of the material and the ideal. They come also as "deep materialists" who understand that material sensual engagement with the world both renders the world meaningful and transformational, and are thus powerfully equipped to engage in answering the how of the transformation of self, society, world, and meaning.

Now that our theories recognize a prehistoric and historic other imbued with agency, embodied, situated in alterities of

not only ecology and landscape, but ontology as well, and transformed by material and symbolic engagement in everyday life, I would argue that the practice of ethnography in the ranks of archaeologists is critical. It is critical, certainly, as incitement to theoretical imagination, but more importantly it is critical as touchstone so that our theoretical vocabulary does not become either appropriative or prurient concerning other subjectivities. This call for ethnography within our ranks would seem to fall under the common axiom of "anthropologically informed archaeology." But I would push us further. Archaeologists bring to the larger discipline a profound sensitivity for "deep materiality" and a sense of "deep alterity." We need to take up the challenge not only of anthropologically informed archaeology, but also archaeologically informed ethnography. I wonder if the courses taught by archaeologists to ethnographers become an interesting arena for taking up this challenge. Rather than being content to instill cultural anthropologists with a healthy respect for the methods and material findings of archaeology, we might look to our ethnographic moments to carry on further dialogues, perhaps even writing our own short classics to rival Shakespeare, "Shakespeare in the Bush" that is, to be remembered beyond the classroom.

References Cited

Binford, Lewis

1983 In Pursuit of the Past: Decoding the Archaeological Record.
Thames and Hudson, New York.

Kent, Susan (editor)

1990 Architecture and the Use of Space—An Interdisciplinary Cross-Cultural Study. Cambridge University Press, Cambridge.

Kus, Susan

1997 Archaeologist as anthropologist: Much ado about something after all? *Journal of Archaeological Method and Theory* 4(3/4):199–213.

Kus, Susan, and Victor Raharijaona

2000 House to Palace, Village to State: Scaling up Architecture and Ideology. *American Anthropologist* 102(1):98–113.

Notes

- 1. This paper was originally presented at the AAA 2008 Annual meetings in a session organized by Kathryn Lafarenz Samuels and Joshua Samuels.
 - 2. http://en.wikipedia.org/wiki/Anthropology

FIRE ON THE MOUNTAIN

DIGNITY AND PRESTIGE IN THE HISTORY AND ARCHAEOLOGY OF THE BORADA HIGHLANDS IN SOUTHERN ETHIOPIA

Kathryn Weedman Arthur, John W. Arthur, Matthew C. Curtis, Bizuayehu Lakew, Joséphine Lesur-Gebremariam, and Yohannes Ethiopia

Kathryn Weedman Arthur is an Assistant Professor and John W. Arthur is an Associate Professor at the University of South Florida St. Petersburg.

Matthew C. Curtis is a lecturer at the University of California, Santa Barbara. Bizuayehu Lakew is a graduate student at Addis Ababa University,

Ethiopia, and an employee of the Southern Nations, Nationality, and Peoples Region Bureau of Culture and Information in Awassa, Ethiopia.

Joséphine Lesur-Gebremariam is a curator of zooarchaeology at the Museum National D'histoire Naturelle CNRS Paris, France. Yohannes Ethiopia is

a native Omotic-speaker and was our language and research assistant.

he prehistory and history of the Borada people, who live in the highlands above Lake Abaya on the western edge of the Rift Valley, is unwritten but not unknown. Today the nine original Borada communities create their New Year's Day fires on different days, which serve as a mnemonic device for the original settlement order of the highlands. The elders declare that the Borada derive their name from Borchay, a man who traveled from Geregeda, which is an area now inhabited by the Guji Oromo, Sidama, and Koyera peoples. Among the Borada, the Sidama, Oromo, and Koyera are known for their strength, dignity, and prestige in warfare and hunting. Thus the Borchay tradition appropriates the reputation of other Ethiopian societies to strengthen the prestige and dignity associated with Borada history. Borchay first settled at Ochollo Mulato and then settled at eight other highland settlements and at each location he made a fire. It is from this oral tradition that our Southern Ethiopian Ethnoarchaeological Project located the first historic highland settlement at Ochollo Mulato, which began our archaeological and ethnoarchaeological search into the history of the Borada people.

The Borada represent one of the ten Gamo-Omotic speaking districts in the western highlands of southern Ethiopia (Figure 1). They live in small communities with an average 70 households that rely primarily on enset cultivation (an indigenous crop) and sweet potatoes, but they also grow wheat, barley, and a variety of vegetables. The Borada divide themselves into three endogamous-hereditary strata determined by patrilineal descent and occupation to include: *mala* (farmers and weavers), *tsoma chinasha* (potters and ironsmiths), and *tsoma degala* (hideworkers). This paper presents

the preliminary results of our research (2005 to 2008) concerning the transformations in Borada endogamous-hereditary strata by creating a dialogue between ethnoar-chaeology, oral tradition, life histories, and archaeology.

Ethnoarchaeology and Life Histories

John and Kathy Arthur began work in the Borada region in 1996 focusing on ethnoarchaeological studies of craft production among the potters (Arthur 2002, 2003, 2006, 2009) and hideworkers (K. W. Arthur 2008; Shott and Weedman 2007; Weedman 2002a, 2002b, 2005, 2006). Our early studies suggested that *tsoma* artisans had little access to positions of prestige and power, and there appeared to be potential for archaeological visibility for the different strata in terms of different types of household materials and household spatial arrangements. Spurred by this earlier research, we decided to begin a study of the Borada history, which included ethnoarchaeological studies of household organization and settlement patterns.

Weedman Arthur studied in five Borada communities, a stratified selection of 60 households including: 20 farmers and weavers, 20 potters and ironsmiths, and 20 hideworkers. She mapped the location of and inventoried households and public-use areas, and recorded household demography, status, kinship, diet, and observed ritual-political, social, and economic practices. The latter provided us with a rich database concerning the daily practices of Borada people and their material and spatial signatures, including their indigenous typologies. However, alone the ethnoarchaeology presented us with several problems. First, our collection of

information was simply a snapshot in time, a time at least 300 years distanced from the archaeological life we were trying to reconstruct and we had no way to assess change through time except through direct comparison to the archaeological record. Second, we had few explanations for why they ordered their world this way.

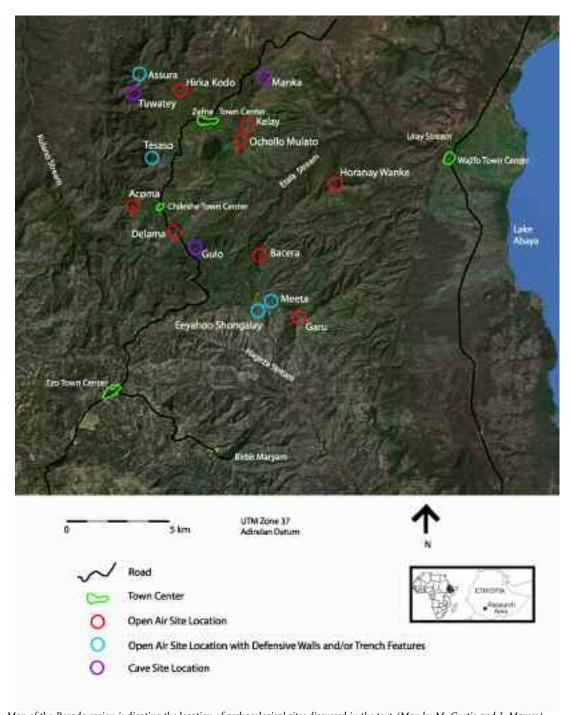
Our concerns were that we did not wish to portray the Borada people as if they lived in some static, remote part of the world that was impervious to change, and we did not want to exclude them from interpretations of their own history. While discussing oral traditions with elders drew out information concerning the location and broad history of settlement and warfare, changes in daily life were only accessible through collecting life histories. The life histories of the elder men and women revealed that during the last century, as a result of the Derg Marxist-Leninist national government and the introduction of Protestantism, the Borada were told to leave their indigenous practices and religion, invoke equality between artisans and farmers, eliminate female ritual-political roles, and redistribute land. Prior to this time, the Borada saw themselves as intricately connected through the shared experience of the lifecycle, to the ancestral spirits and natural spirit forms of Tsalahay who lived in water, trees, rainbows, snakes, and stones. The lifecycle is symbolized in their rites of passage system, and all people and material objects pass differentially through the stages of birth (gatchino), transition/rest (dumay), and private and public incorporation (bulacha/sofay). Prestige and dignity are obtained through completion of rites of passage associated with birth, puberty, marriage, ritual-political leadership, hunting leadership, and death (Figure 2). Of all these rites of passage, artisans only complete the entire rite for birth and marriage. Borada religion then served to preserve the dignity and prestige particularly for mala men, and there were strict rules forbidding marriage, sharing food, etc., with the tsoma artisans, which were reinforced through favor or punishment from ancestral and Tsalahay spirits. These concepts of status and prestige are reflected in the material world, specifically in the ways in which village space is allocated for public and private use. In the past, tsoma artisan households tended to be located on lands that have poorer agricultural soils on the edges of villages and contained the burial of their deceased. Furthermore, artisans can rarely afford the domesticated animals and barley needed to make amends with the spirit world in the case of transgressions. Meanwhile, to ensure their own health and prestige, the Borada mala farmers offered daily barley porridge near the central household post for their ancestral spirits, offered animal or butter sacrifices in periodic rituals conducted by prestigious men and women associated with the harvest and rites of passage, and offered situational animal sacrifices for human transgressions. In the past, the *mala* men and women each had distinct ritual areas that they used to maintain the fertility of people, plants, and animals. Today, the influences of national politics and the introduction of world religions are visible when seen through life histories in the redistribution of artisan and farmer household lands, reallocation of artisan ritual space for more communal use, and the appropriation of female sacred spaces for community wells. By combining ethnoar-chaeology with oral tradition and life histories, we are able to provide a richer understanding of the link between the Borada worldview today and in the memory of living elders and the archaeological messages of the past.

Archaeology

Ethnoarchaeology, oral tradition, and life histories recall the importance of dignity and prestige in the Borada life as they are constructed through literary symbols and material evidence on the landscape. Between 2005 and 2008, we began to piece together the historical Borada landscape through locating, mapping, and testing the sites identified by the Borada elders. As a result, we have an incredible array of sites dating between 300 BP to 6400 cal B.P., such as large 1 km² open-air hilltop settlements, garrison sites with deep 3 m trenches for defense, mountain-top fortification with multiple stone-line circular enclosures, and deep ritual caves sites with almost 1.5 m of cultural stratigraphy.

Open Air Settlement Sites

The critical symbols of fire and sacrifice in Borada worldview and oral tradition helped us to identify through the testimony of elders the location of the nine open air sites, which date from the thirteenth to the nineteenth centuries and include: Ochollo Mulato, Bacera, Assura, Delama, Hirka Kodo, Tesaso, Horanay Wanke, Kelay, and Garu (Figure 1). Each of these settlements is located near a spring on a mountain top or high ridge area overlooking either the Lake Abaya basin or the Omo River basin. Each site also contains a burial ground, sacred forests, and evidence for sub-surface households. These communities range in size from less than 2 to over 40 hectares. Test excavations and shovel tests revealed that cattle are the dominant faunal species in association with earthenware ceramics, iron, glass beads, and some chert and obsidian debitage. Oral tradition suggests the presence of a market area at Ochollo Mulato and defensive walls at Assura and Tesaso. Because of their immense size and the relative lack of architectural features visible on the surface, in 2008 we enlisted the expertise of Lawrence Conyers, whose ground-penetrating radar data indicate the possible presence



 $Figure\ 1:\ Map\ of\ the\ Borada\ region\ indicating\ the\ location\ of\ archaeological\ sites\ discussed\ in\ the\ text\ (Map\ by\ M.\ Curtis\ and\ J.\ Marcos).$



Figure 2: Photograph of Erasho Unkalo who killed a leopard with this spear and was prestigiously elected lead hunter twice.

of hearths, circular and angular wall structures, and compact floors at several of the sites.

In addition to obtaining chronometric and relative dating for the sites during our preliminary studies, we hoped to locate households representing the different strata and thus discern different levels of social prestige including mala farmers and weavers, mala ritual political leaders, degala hideworkers, and chinasha potters and ironworkers. At Ochollo Mulato (Figure 3) we believe we recovered the stone household foundation of a once high-status individual that includes a dense concentration of ceramics, ground stone, spindle whorls, and a rare ceramic headrest. The presence of slag on the surface to the south of this household indicates the possibility of an ironworking household also in the area. The lithic analysis suggests the possibility of at least four hideworking households with dense concentrations of obsidian and chert debitage, resharpening flakes, flakes and scrapers at Ochollo Mulato, Kelay, Bacera, and Garu. Dense concentrations of cattle teeth and limb extremities at Ochollo Mulato and Kelay confirm through ethnographic analogy the presence of hideworkers who commonly consume these parts. Hideworker households also contained stone awl, iron spear and knife, a bone polisher and washer used decoratively, and ochre (probably used for coloring hides).



Figure 3: Photograph of Ochollo Borada, identified as the first settlement in Borada oral tradition.

Cave Sites and Defensive Walls

Cave sites such as Gulo, Manka, and Tuwatey (Figure 1) in the region held two known functions in the memories of the living Borada peoples; caves were used for protection during wartime and for rituals. Prior to the introduction of Christianity, caves were the location of animal sacrificial rituals for newborns in their rites of passage rituals. Some origin stories state that the Borada people were made out of clay and came out of the earth through caves. In these protective wombs, people also hid during times of warfare. Oral traditions of Borada men also revealed that warfare was important prior to the Marxist-Leninist government. The Borada peoples were engaged in wars over land with their Wolayta and Gamo neighbors to the north and south, and the victorious district received either military aid in the future from the conquered or labor tribute in the form of slaves (mostly women and children) that served to provide the much needed agricultural labor on the highlands poor soils (Abele 1981; Olmstead 1975). Warfare created an avenue for individual men to gain dignity and prestige (Figure 2). These wars are marked on the landscape through the presence of defensive walls at Assura, Tesaso, and Meeta and Eeyahoo Shongalay (Figure 1), open grassland battlefields, and cave sites that were used for protection (Tuwatey, Manka, Gulo). We excavated tests at Gulo and Tuwatey, which date from 6280-1920 cal B.P. and 6400-3360 cal B.P. respectively. The Tuwatey assemblage and dating suggests it was occupied during the Pastoral Neolithic (ca. 6500 B.P. in North Africa and 4000 B.P in East Africa) as we recovered earthenware ceramics, a clay bead, ochre, heat treated chert and obsidian debitage

and modified flakes, as well as faunal remains including five bovid fragments, one bush pig and one terrestrial crab fragment. The Gulo cave remains include earthen ware ceramics, bone (unanalyzed), and chert and obsidian flakes.

Although we have just begun our archaeological research, we hope in the future to conduct more broad-scale excavations at both open-air and cave sites to help us build a material record of the Borada past that we can interpret through ethnoarchaeology, oral traditions, and life histories.

Conclusion

Our research and collaboration with the Borada peoples of the southern Ethiopian Highlands illustrate the importance of including oral tradition and life histories in ethnoarchaeology and historical archaeology. Importantly, through incorporating local oral traditions and life histories, ethnoarchaeological research avoids the dilemma of portraying a culture as stagnant and unchanging. Like all cultures, the Borada have experienced dramatic changes in the last 100 years that rest in the memories of the living, including local warfare, drought, protestant missionary activity, and a national Marxist-Leninist regime, to name just a few. Throughout their lives the Borada have renegotiated and rearticulated their relationships with their material and spatial worlds. By understanding the changing worldview of indigenous peoples like the Borada, ethnoarchaeologists have an opportunity to expand our own worldview of the relationships between people and things (Skibo 2009). Unlike social theories espoused by Western anthropology that dichotomize people from the material and natural world, the Borada demonstrate another worldview where people, material culture, and the natural world all proceed through similar symbolic lifecycles, which are expressed in Borada practices and use of space. We run the risk of not only denying people a voice in the reconstruction of their own history, but offending and demeaning indigenous cultures when we use them as a model for the past without recognizing not only their changing past but their active involvement in changing and/or maintaining their identities and history in the present. One of the key methods to avoid these problems is to include a peoples own oral traditions and life histories in our ethnoarchaeological and archaeological work.

References Cited

Abélès, Marc

1981 In Search of the Monarch: Introduction of the State among the Gamo of Ethiopia. In Modes of Production in Africa: The Precolonial Era, edited by D. Crummey and C. Steward, pp. 35-67. Sage Publication, Beverly Hills.

Arthur, Kathryn Weedman

2008 Stone-Tool Hide Production: The Gamo of Southwestern Ethiopia and Cross-Cultural Comparisons. Anthropozoologica 43:67–98.

Arthur, John W.

- 2002 Brewing Beer: Status, Wealth, and Ceramic Use-Alteration among the Gamo of Southwestern Ethiopia. World Archaeology 34:516–528.
- 2003 Beer, Food, and Wealth: An Ethnoarchaeological Use-Alteration Analysis of Pottery. *Journal of Archaeological Method and Theory* 9:331–355.
- 2006 Living with Pottery: Ethnoarchaeology among the Gamo of Southwest Ethiopia. University of Utah Press, Salt Lake City.
- 2009 Understanding Household Population Through Ceramic Assemblage Formation: Ceramic Ethnoarchaeology Among the Gamo of Southwestern Ethiopia. American Antiquity 74:31–48.

Olmstead, Judith

1975 Agricultural Land and Social Stratification in the Gamu highlands of southern Ethiopia. In *Proceedings of the First U.S. conference on Ethiopian Studies*, edited by H. G. Marcus, pp. 223–234. African Studies Center, Michigan State University, East Lansing.

Shott, Michael, and Kathryn Weedman

2007 Measuring Reduction in Stone Tools: An Ethnoarchaeological Study of Gamo Hidescraper Blades from Ethiopia. Journal of Archaeological Science 34:1016–1035.

Skibo, James

2009 Archaeological Theory and Snake-Oil and Peddling: The Role of Ethnoarchaeology in Archaeology. *Ethnoarchaeology* 1:27–56.

Weedman, Kathryn

- 2002a On the Spur of the Moment: Effects of Age and Experience on Hafted Stone Scraper Morphology. American Antiquity 67:731–744.
- 2002b An Ethnoarchaeological Study of Stone-Tool Variability among the Gamo Hide Workers of Southern Ethiopia. In Le Travail Du Cuir de La Prehistoire, edited by S. Beyries and F. Audoin-Rouzeau, pp. 131–142. Editions APDCA, Antibes, France.
- 2005 Gender and Stone Tools: An Ethnographic Study of the Konso and Gamo Hideworkers of Southern Ethiopia. In Gender and Hide Production, edited by Lisa Frink and Kathryn Weedman, pp. 175–196. AltaMira Press, Walnut Creek, California.
- 2006 An Ethnoarchaeological Study of Hafting and Stone Tool Diversity among the Gamo of Ethiopia. *Journal of Archaeological Method and Theory* 13:188–237.

ETHNOARCHAEOLOGY—LOOKING BACK, LOOKING FORWARD

Diane Gifford-Gonzalez

Diane Gifford-Gonzalez is a Professor in the Department of Anthropology at the University of California, Santa Cruz.

midst the spike grass and gale-force winds of a Lake Turkana summer in 1972, with the temperature approaching 45°C/113°F, why I wanted to study the present to understand the past took on a different tenor. The difficulty of simply being in such a challenging place sharpened the question with which I continued to grapple as I wrote my NSF Dissertation Improvement Grant proposal over the following months.

Having come to archaeology late in life, as a second-try graduate student with an interest in bones, I studied with paleontology professors at UC Berkeley who valued taphonomy's ability to elucidate the formation of fossil deposits. They taught that study of processes forming modern analogues was a cornerstone of geology since Charles Lyell talked back to the catastrophists; these were unarguable paths to greater knowledge. Meanwhile, I was recalling my undergraduate education in a department of anthropology founded by that Ur-particularist, Alfred Kroeber, where reasoning by analogy was politically incorrect, and no universal material processes could affect culture. Further, my three archaeology professors had trained at Cambridge University, where since the 1920s, no one doubted that environmental factors influenced human culture, although they had barely heard of Julian Steward (but then, neither had most graduate students at Berkeley, after his banishment in the mid-1930s from Kroeber's Circle of Acceptability). My advisor, Glynn Isaac, described himself as an empiricist, a word I had to go look up, yet was a hyperactive constructor of mini-experiments and avid documenter of natural processes affecting potential archaeological sites—a kind of site taphonomy, I realized. Why? To better understand past human behavior from archaeological sites!

Contradictory ideas on analogy, uniformitarianism, causality, and culture bounced around my mind like errant ping-pong balls for the entire 1970s, during my first two years as a graduate student, in my 1972 summer reconnaissance at East Lake Turkana, through my 1973–1974 ethnoarchaeological

study there on site formation among Dassanetch agropastoralists, and in a concurrent detour into large animal taphonomy. They plagued me through dissertation writing, the last chapter of which raised but did not answer questions about the nature and limits of analogical reasoning in knowing the past. At least I had the contradictions down on paper.

These intensified as I drafted my first grown-up article, a solicited review of taphonomy and paleoecology, for Michael Schiffer's *Advances in Archaeological Method and Theory*. The war over analogy in archaeology had heated up, and in my Tucson post-doc, I sweated out how to reconcile paleontological perspectives with assertions by processual archaeologists like Binford and Gould that archaeology could "escape analogy." Processual archaeology had been something my Americanist friends in the Berkeley program furtively read in their tents with flashlights when Robert Heizer was not around. It had been of limited interest to the Cambridge chaps, too, except when Binford and Binford tackled the Mousterian. Boy, did I have a lot of reading to do.

I thought I had managed to skirt the abyss of contradiction between processual archaeology's analogy-as-bad and analogy's pervasive use in paleoecology in the first draft I sent to Schiffer. I had even found a new word, "actualism," in an article by paleontologist David Lawrence (1971) that could encompass taphonomy, site formation, ethnoarchaeology, experimental archaeology—all contemporary observations to understand past processes. Then the reviews came back. One, from someone whom I acknowledged as "The Killer" in my final revision, sent me right back to the edge of the abyss, with its painfully apt and pertinent queries. I was in a tizzy, which I later realized was a "paradigm shift," certainly a more dignified term for extreme intellectual and personal duress. I had to thoroughly rethink everything that I thought I knew, read philosophy of science, figure out where I stood, and, worse yet, write it up for publication. I learned that relational analogies were more strongly warranted than formal analogies, how analogies necessarily compare entities that differ in some aspects, and I got to feeling better about what, how, and why I did my ethnoarchaeological observations. I read Binford's (1977) introduction to For Theory Building in Archaeology and realized his thinking about analogy had shifted since "Smudge Pits and Hide Smoking" (Binford 1967). Perhaps there was light at the end of the tunnel, and I was not about to go into print contradicting the King Kong of American archaeology, after all.

Then, as I was painfully reconstructing, word by word, my own perspective on analogy and uniformitarianism, with about the same ease as I would have pulled my own teeth, Academic Press sent me a manuscript of Binford's to review. This had seemed like a straightforward way for an assistant professor to earn supplemental income. The manuscript was entitled "Bones: Ancient Men and Modern Myths." As I read the introduction, it appeared that Binford had been reading my mind about the use of analogy in archaeological methodology. I was crushed. Here I was, nobody, thinking thoughts similar to those of Binford. Who would believe I had thought of them independently? I did what any hominoid having a bad day would do: I took to my bed. I made lots of popcorn and ate it in bed. I contemplated a career in health care; surely, life as a nurse practitioner could not be this stressful.

I am not sure when in this ego-bruising maelstrom I told Mike Schiffer that I was having a paradigm shift and a nervous breakdown, and that I thought I should get the nervous breakdown out of the way first, and then do the paradigm stuff, so could I submit my revision for the following year's *Advances*? Mike was bemused but supportive of my doing whatever it took to get the manuscript to him. What a Mensch.

Rereading Binford's manuscript, I saw he was writing from a slightly different perspective, that he needed some help with his syntax, and that maybe it was not the worst thing to be scooped by the King Kong of American archaeology. I contacted him, sent him my revised manuscript and my comments on his manuscript. He graciously invited me to visit New Mexico and offered remarkably gentle and constructive comments on my work. I realized, though Lew did like to yell and argue, it seemed he could not stand to see ladies cry, and he had me pegged as a crier from the moment I walked in the door.

Bones... (Binford 1981) and "Taphonomy and paleoecology..." (Gifford 1981) appeared simultaneously, and I did not mind at all that Binford took to using "actualism" in his revised version. Alison Wylie's "Analogy by any other name is just as analogical" (1982a) brought deep knowledge of philosophy of science to bear on the ongoing debate over "escaping" analogical" (1982a)

gy in archaeology, and her 1985 "Reaction against Analogy," further supported the view that analogy is inevitable but complexly applied in archaeology. Now that many readers may be primed for another anecdote of amusing personal foibles, I want to shift a more formal analysis of the issues that continue to bear on discussions of ethnoarchaeology and analogy. I'm sorry, but I should try to earn my keep here.

Coeval with Wylie's 1980s publications, postprocessualism challenged "mainstream" theory and method. Middle Range Theory (MRT), much of it built by ethnoarchaeology, was one of its early targets (Hodder 1986). I have long suspected that Hodder's initial anti-determinist position on MRT was as much a reaction to the dominance of Grahame Clark's environmental determinism at Cambridge as to the excesses of American processualism. While championing a less reductionist and more culturally directed archaeology, Hodder nonetheless sought "general principles of meaning and symbolism" (1982:25) to facilitate such interpretations, a kind of "new uniformitarianism," as Wylie (1982b) noted. Hodder himself did not go so far as to dismiss that material properties of archaeological materials have remained constant over time, stating, a bit later on, "... we are not just interpreting interpretations, but dealing with objects that had practical effects in a noncultural world—an ecological world organized by exchanges of matter and energy. These universal, necessary relations confront the tendency of our interpretations to 'run free'..." (1991:12, emphasis in original).

From the 1980s to today, contemporary observations on people by archaeologists have followed several divergent paths. One, stemming from processual archaeology, studied cultural transmission in artifact production and site formation, both within and without Schiffer's behavioral archaeology framework (Arnold 1993; Graves 1985; Kramer 1985; Longacre 1981; Longacre and Skibo 1994; Shott 1995; Stark 1985; Watson 1995). Another built on second-wave processual quests for uniformitarian processes by adopting evolutionary ecological theory to research on human behavioral ecology (HBE). This assesses predictions that follow from behavioral ecology as it may apply to humans (Bird and Bliege Bird 2000; Bliege Bird and Bird 2008; Hawkes et al. 1987; Lupo 1998). Not all these researchers are archaeologists by training, and some would reject characterization of their work with living peoples as "ethnoarchaeology." However, their focus is largely on evolutionary issues they assert are relevant to studying the human past. Yet another path emerged from postprocessualism's and critical archaeology's challenges to processualism, displaying less inclination to search for broad generalizations from ethnoarchaeological cases but applying innovative theoretical approaches (Dietler

1989; Donley 1982; Herbich 1987; Hodder 1987; Moore 1982). These intellectual trends and practical aspects of ethnoarchaeological fieldwork are reviewed in considerable detail by David and Kramer (2001).

What, given this diversity of theoretical stances, does contemporary ethnoarchaeology do? Ethnoarchaeology appears to serve archaeological research in five ways:

- As a "spoiler" to received wisdom: documentation of a case that disproves a standing generalization in the literature (Yellen 1977). In itself this may not lead to widely applicable generalizations.
- 2. As a prediction tester: in studies that formally test a prediction drawn from a body of theory. This could lead to widely applicable generalizations.
- As a category checker: assessing the adequacy of implicit assumptions or analytic categories with real life cases. This may have broader implications for others' research design and analytic categories.
- 4. As a MRT builder: defining relational analogies at levels relevant to archaeological evidence. This could lead to widely applicable generalizations.
- 5. As a supplemental aid to writing long-term histories of groups who have inhabited a region for many years. This is mainly relevant to the case at hand, although some approaches can serve as models of "best practices."

Articles in this special issue (some of which appeared in November 2009) and the most recent on ethnoarchaeological research fulfill one or more of these options. Arthur and colleagues use intensive informant interviews among the Borada to locate and define the wide range of sites produced by this group in their homeland over the centuries. They also emphasize the need to view these interviews as refracting Borada responses to a century of outside intervention in their religion, subsistence, economy, and society. Belcher (November 2009) discusses how he sought to study traditional fishing practices in coastal Pakistan to clarify patterns he saw in archaeofaunal fish bone. His research interviews, observations, and faunal analyses allowed him to assess predictions he had made before his fieldwork and to build more robust MRT about the meaning of patterning in fishbone debris. Flores (November 2009) was able to refine MRT specific to Baraulu, perhaps to other Western Salomon Islands archaeological cases, in terms of species-specific shellfish discard and patterns in the situation of middens.

Hudson's account of research with Aka foragers attests that experiencing animal food sharing helped her devise better

quantitative measures and scales of analysis, as her research with Peruvian reed boat fishers helped her refine her ideas about hook-and-line return rates. Moreover, by seeing male fishing embedded in systems of cooperative household labor, she began to reframe zooarchaeological data. Millerstrom's (November 2009) interviews with informants in the northern Marquesas led to a deeper understanding of the historical ecology of landscape, beginning with strategically located fishermen's shrines. Jones (November 2009) cites how ethnoarchaeological research offered insights into Lau's long record of marine exploitation through episodes of climate change. Susan Kus testifies to her learning in ethnographic context on Madagascar, not so much about "tradition" as she expected to find as about what the real, politically situated circumstances of the reproduction of tradition. In relating the collision between her preconceptions about social "underdogs" and their actual renegotiations of power relations, Kus demonstrates how on-the-ground experience can force a researcher to altogether new analytic tools and research foci.

The once-common complaint that the people of today are so different from those of the past that nothing can be learned from studying their lifeways is seldom heard now. I am uncertain if this is due to the effectiveness of publications on analogical reasoning, the death of the worst forms of direct historic analogy as well as of the idea of past and present "primitives" as isolates from wider world systems, or the efficacy of findings drawn from actualistic research in doing good archaeology. Perhaps it is simply that most archaeologists understand that, at best, archaeological inference is a complex process, in which uniformitarian "givens" anchor arguments of plausibility. Like ethnohistory, experimental archaeology, and taphonomy, ethnoarchaeology offers a window into what Wylie (1989) has called the "source side" of the phenomena we encounter as structure in archaeological data. I personally do not care too much from which "school" such information comes; what is important is that it be useful. I recently made the case to scholars of gender and longterm history that they should look to HBE and reproductive ecology findings on women's workload and life history (Gifford-Gonzalez 2008), as these offer views of the uniformitarian biological constraints with which women negotiate their social and economic roles. I know I risk being labeled a "biology-is-destiny" reactionary by those who do not know how variable those negotiations can be, but I believe we ignore datasets at our intellectual peril.

The bracing effects of watching one's preconceptions crumble and one's profound ignorance emerge in the face of someone else's everyday reality are what make ethnoarchaeology valuable, in whatever tradition it is practiced. However

much one's fieldwork is problem-focused and theory-driven (as I believe they should be), living in a profoundly different context is sure to prompt serious reassessments of one's thinking (as I believe it should do). The contributions in this special issue reflect some of this spectrum of variation in motivations for and, ultimately, lessons learned through, ethnoarchaeology.

References Cited

Arnold, Dean E.

1993 Ecology and Ceramic Production in an Andean Community. New Studies in Archaeology. Cambridge University Press, New York.

Binford, Lewis R.

1967 Smudge Pits and Hide Smoking: Use of Analogy in Archaeological Reasoning. American Antiquity 32:1–12.

1977 For Theory Building in Archaeology: Essays on Faunal Remains, Aquatic Resources, Spatial Analysis, and Systemic Modeling. Academic Press, New York.

1981 Bones: Ancient Men and Modern Myths. Academic Press, New York.

Bird, Douglas W., and Rebecca Bliege Bird

2000 The Ethnoarchaeology of Juvenile Foragers: Shellfishing Strategies among Meriam Children (Eastern Torres Strait). Journal of Anthropological Archaeology 19(4):461–476.

Bliege Bird, Rebecca, and Douglas W. Bird

2008 Why Women Hunt: Risk and Contemporary Foraging in a Western Desert Aboriginal community. Current Anthropology 9(4):655–693.

David, Nicholas, and Carol Kramer

2001 $\it Ethnoarchaeology in Action.$ Cambridge University Press, Cambridge.

Dietler, Michael

1989 'Tich matek': The Technology of Luo Pottery Production and the Definition of Ceramic Style. World Archaeology

Donley, L. W.

1982 House Power: Swahili Space and Symbolic Markers. In Symbolic and Structural Archaeology, edited by I. Hodder, pp. 63–73. Cambridge University Press, Cambridge.

Gifford, Diane P.

1981 Taphonomy and Paleoecology: A Critical Review of Archaeology's Sister Disciplines. In Advances in Archaeological Method and Theory, Vol. 4, edited by M. B. Schiffer, pp. 365–438. Academic Press, San Francisco.

Gifford-Gonzalez, Diane

2008 Thoughts on a Method for zooarchaeological Study of Daily Life. In Interpreting Household Practices: Reflections on the Cultural and Social roles of Maintenance Activities, edited by P. González Marcén, S. Montón Subias and M. Picazo, pp. 15–23. British Archaeological Reports, Oxford. Graves, Michael W.

1985 Ceramic Design Variation Within a Kalinga Village: Temporal and Spatial Processes. In *Decoding Prehistoric Ceramics*, edited by B. A. Nelson, pp. 9–34. Southern Illinois University Press, Carbondale.

Hawkes, Karen, James F. O'Connell, and N. Blurton Jones

1987 Hardworking Hadza grandmothers. In Comparative Socioecology: The Behavioural Ecology of Humans and Other Mammals, edited by V. Standen and R. A. Foley, pp. 341–366. Basil Blackwell, London.

Herbich, Ingrid

1987 Luo Pottery: Socio-Cultural Context and Archaeological. Implications. Institute of Africa Studies, University of Nairobi

Hodder, Ian

1982 The Present Past: An Introduction to Anthropology for Archaeologists. B. T. Batsford, London.

1986 Reading the Past. Cambridge University Press, Cambridge.

1987 The meaning of Discard: Ash and Domestic Space in Baringo. In Method and Theory for Activity Area Research: An Ethnoarchaeological Approach, edited by S. Kent, pp. 424–448. Columbia University Press, New York.

1991 Interpretive Archaeology and Its Role. *American Antiquity* 56(1):7–18.

Kramer, Carol

1985 Ceramic Ethnoarchaeology. Annual Review of Anthropology 14:77–102.

Lawrence, David R.

1971 The Nature and Structure of Paleoecology. Journal of Paleontology 45:593–607.

Longacre, William A.

1981 Kalinga Pottery: An Ethnoarchaeological Study. In Pattern of the Past: Essays in Honor of David Clarke, edited by I. Hodder, G. Isaac and N. Hammond, pp. 49–66. Cambridge University Press, Cambridge.

Longacre, William A., and James M. Skibo

1994 Kalinga Ethnoarchaeology: Expanding Archaeological Method and Theory. Smithsonian Institution Press, Washington, D. C.

Lupo, Karen D.

1998 Experimentally Derived Extraction Rates for Marrow: Implications for Body Part Exploitation Strategies of Plio-Pleistocene Hominid Scavengers. *Journal of Archaeological Science* 25(7):657–675.

Moore, Henrietta L.

1982 The Interpretation of Spatial Patterning in Settlement Residues. In *Symbolic and Structural Archaeology*, edited by I. Hodder, pp. 74–79. Cambridge University Press, Cambridge.

Shott, Michael J.

1995 How Much is a Scraper? Curation, Use Rates, and the Formation Of Scraper Assemblages. *Lithic Technology* 20(1):53–72.

GIFFORD-GONZALEZ, continued on page 12

THE NEED FOR STEWARDSHIP TRAINING IN ARCHAEOLOGICAL FIELD SCHOOLS

James M. VanderVeen and Jeanette Repczynski

James VanderVeen is an Assistant Professor in the Department of Sociology and Anthropology at Indiana University South Bend.

Jeanette Repczynski is an undergraduate history major at Indiana University South Bend.

ield schools hold an important place in the archaeological tradition. They are an apprenticeship where students learn the techniques needed in the profession. Participants are actively engaged in answering genuine questions with real methods and tools. It is difficult to be admitted to graduate school without some experience in archaeological research, and nearly impossible to acquire an entry level job without direct practice in the field. One can only learn so much about stratigraphy, soil profiles, and shovel tests in the classroom. An archaeologist must get his or her hands dirty. Although a professional archaeologist cannot be produced in a single field school session (Meighan 2000; Wilk and Schiffer 1981), the social and academic impact of this experience can shape a career.

The role of field schools, however, is larger than simply training future archaeologists. Many participants will never become practitioners in the discipline, and they may have made that decision based in part on their first encounter with the tedium of excavating. Others may never have planned on continuing their education in archaeology in the first place; rather, they were seeking an adventure at home or abroad and decided to spend six weeks of their summer discovering new things about the past and about themselves. Although they do not pursue the discipline any further, they will continue to have an interest in the past.

The most valuable lesson a field school may offer, regardless of whether the student is seeking a degree in anthropology or not, is the appreciation of the complex political and social world in which archaeological research occurs (Berman 2004). There are laws and policies to be followed, various stakeholders with diverse interests to be consulted, and competing interpretations of the data to be considered. Unfortunately, field school instructors do not often have the time or inclination to formally cover all of these issues in addition to providing training on how to map a site, dig a unit, and document an artifact. Students complete a field school knowing how to competently recover and curate a ceramic sherd, but they must also be aware of the theoretical and ethical contexts within which the excavation of that

sherd took place (Walker and Saitta 2002).

If done right, a field school can have a lasting impact on all participants, beyond learning how to best hold a trowel. Considerable benefit can be derived by exposing the future stockbroker, police officer, and elementary school teacher to the ethics of archaeology, especially with reference to the need to preserve and protect the past. Professional archaeologists tend to belong to associations with standards of behavior, but students and the public rarely are presented with these ethics and norms. A study of Canadians found that 73.4 percent of the public in that country were unaware of federal legislation protecting archaeological sites (Pokotylo and Guppy 1999). There is no reason to believe these numbers are not comparable in the U.S., and they are certainly higher with regards to the lack of knowledge of professional codes of ethics. Issues that seem clear after years of experience in the field and involvement in the discipline may not be obvious to others.

The first responsibility of an archaeologist, according to the Society for American Archaeology's Principles of Archaeological Ethics, is stewardship (Society for American Archaeology 1996). All other goals are related to this as well. The protection of the archaeological record may be the easiest, and arguably most important, to teach to field school participants. While students are not typically in the position to consider such issues as the intellectual property relevant to their small role in the excavation or the responsibility for granting long-term access to records, they do handle the artifacts and dig the holes. If field school instructors appear to be silent on the topic of collection ethics and site preservation, a great opportunity is lost.

While the archaeologists running field schools may think they are reaching the students on ethical issues, we have reason to believe that message may not be so clearly received. During a recent excavation in the Dominican Republic, we were faced with a common ethical dilemma. We were guided to an archaeological site by people residing in the area. While there, we conducted a small surface survey to learn the extent of the site. The entire group picked up ceramic sherds from the surface to pho-

tograph diagnostic decoration styles. Our guides, however, were observed by some members of our team putting elaborate pottery fragments in their pockets. These artifacts, and others, were later offered to some student members of our team.

The more inexperienced of the students did not know what to make of this behavior. In much of the U.S., surface collection of artifacts is legal on private property with the permission of the land owner. In other countries, the rules vary. In the Dominican Republic, the government owns all cultural heritage, regardless of its location. This is almost never enforced, however, because of the limited budget and staff of the responsible agency. Our guides were very interested in archaeology, taking the time and expense to shuttle us by boat to the site, and they even came out to our field site later to participate in the excavation. It was difficult for the students to see the behavior of the guides as wrong. The artifacts were found by a newly graded road on land that was currently being developed, and they likely would have been lost or destroyed in the near future.

When the unauthorized collecting came to light, a lecture was quickly delivered to the students about the absolute necessity for the team to follow the rules of the country to the letter. The assumption was everyone on the team had knowledge of the importance of context and stewardship from other archaeological classes. Unfortunately, there existed a disconnection between topics covered in the classroom and those experienced in the real world, where things move much faster and are never as black and white.

After the research trip was completed, we decided to survey other archaeologists to see how their field schools address similar ethical issues. We took two different approaches. First, we sent an electronic mail message to 40 archaeologists we knew were responsible in some way for a field school. We asked them to complete an on-line survey with ten questions. In a ten-day period in September 2008, 12 completed questionnaires were returned, for a response rate of 30 percent. Second, we looked at syllabi of field schools that were posted on the internet. We felt this step was necessary because of the potential self-selection by the survey respondents. The study information sheet included in the electronic mail message specifically discussed collection ethics and stewardship. Some archaeologists may have felt threatened by their own interpretation of those terms or their policies in the past and might not complete the survey, even though it was designed to be absolutely confidential. We selected the first 20 complete syllabi that appeared in the results returned by an internet search engine.

All the questionnaires reflected field schools run between 2004 and 2008. Nearly all the respondents (n = 10, 83.3 percent) described themselves as principle investigators, although some

also held other positions such as laboratory director or served as crew chiefs. Additionally, nearly all were members of the Society for American Archaeology (n = 10, 83.3 percent), and most belonged to multiple professional organizations (American Anthropological Association, Midwest Archaeological Conference, Register of Professional Archaeologists, and Society for Historical Archaeology were other common groups). Taken together, the respondents can be said to have had extensive archaeological experience and knowledge of the standards and ethics of their profession. While the instructors knew of their professional responsibilities, that information was rarely passed on to the students. The vast majority of field school instructors surveyed (n = 9, 75 percent) did not use a syllabus or course guide as a place to speak about or link to codes of professional conduct. This held true in our study of syllabi posted online as well. Of those, only three (15 percent) mentioned the issue of ethics either directly or as a topic on the course schedule to be discussed.

The lack of a statement of ethical standards in the field school syllabus is troubling. A syllabus is seen as a contract between the students and instructors, and the most successful of these documents communicates the responsibilities both parties have in the process of achieving specific outcomes (Calhoon and Becker 2008). It is one of many learning devices, but it is among the first seen and the most often referenced. The syllabus also expresses the instructor's overall tone or personality (Matejka and Kurke 1994), setting the stage for the rest of the course. When ethics are not listed in the course policies or as a topic specifically scheduled for discussion, students may see these concerns as less important than how often they must attend, what sort of equipment they need to provide, or exactly how one reads a topographic map. By starting a conversation about ethical issues as early as possible in the class, field school participants will begin to understand how the principles of the field directly relate to every action an archaeologist takes.

Archaeology does employ complex methods of mapping and excavation that need to be taught, reiterated, and practiced. Nevertheless, as Anne Pyburn has so succinctly stated, it "is not rocket science... If we mix inches with centimeters, the project will not come crashing down on our ears" (2003:216). If students leave with less than perfect mapping skills, they have still learned what is expected of them in the field. It is more vital that they comprehend and identify with the reasons behind our ethical codes. We are training future archaeologists, and we must leave them archaeological sites to investigate in the future. We must impress on them the need for stewardship.

Fortunately, our survey suggests that many field school instructors are talking about these issues, even if it is not apparent in their syllabi. Sixty-six percent (n = 8) of respondents state they

ARTICLE

have some formal orientation for their students before excavation that discussed collection ethics or stewardship. Even more (n = 9, 75 percent) mention stewardship during a formal lesson, lecture, or presentation. "Formal" here describes situations in which all the students are present and a plan was made beforehand to talk about specific points. Finally, all respondents (n =12, 100 percent) report they have had informal exchanges about collection ethics in which one student or a very small group of students are present and the discussion is an impromptu response to a question or some particular situation. The dialogue is happening, but it occurs more frequently at the individual level. Although students are more likely to remember these conversations because they are active participants and may have even initiated the discussion, not all the field school students are involved. It is entirely possible that, according to our results, a participant is able to successfully complete a field school in archaeology without ever once learning about the ethical codes and principles fundamental to the discipline.

Another reason for the absence of ethical discussions in field schools is that these are usually not the first classes students take in archaeology. Some of the survey respondents mentioned that they did not include stewardship or collection ethics because these are issues that are covered in their introductory courses. Yet students may be transferring credit from another university or they have taken their introductory courses with a different instructor who did not lecture on the same material. Field school supervisors cannot rely on students having exactly the same levels of training in ethical issues, just as field school participants will not have the same writing skills or math abilities.

Field school instructors are trying to provide the training necessary to prepare students for jobs or graduate schools, but we often miss the perfect opportunity to help them better understand what archaeology should really be about. Not all field school participants will continue in archaeology, but they have all shown an interest in the past. Thus, the preservation of archaeological objects and sites must be a central part of all field school instruction. A statement on ethics included in the field school syllabus would be a good start, although time spent in formal discussions of the topics before the students go to the site would be better. Instructors must ensure that all students receive this information, whether it seems repetitive or not. It is important to remember that field schools are more than just training grounds for technical skills like map drawing and photography or sources of cheap labor for a research project. The participants are learning about the professional nature of the discipline through both instruction and practice, and—if done right—they should become more responsible stewards because of it.

References Cited

Berman, Rebecca L.H.

2004 Lessons from the Navajo: The Impact of a "Good" Field Experience on a Career. NAPA Bulletin 22:128–141.

Calhoon, Sharon, and Angela Becker

2008 How Students Use the Course Syllabus. *International Journal* for the Scholarship of Teaching and Learning 2(1):1–12.

Matejka, Ken, and Lance B. Kurke

1994 Designing a Great Syllabus. *College Teaching* 42:115–117. Meighan, Clement W.

2000 Overview of the Archaeology of San Clemente Island, California. Pacific Coast Archaeological Society Quarterly 36(1):1–17.

Pokotylo, David, and Neil Guppy

1999 Public Opinion and Archaeological Heritage: Views from Outside the Profession. *American Antiquity* 64(3):400–416.

Pyburn, K. Anne

2003 What Are We Really Teaching in Archaeological Field Schools? In *Ethical Issues in Archaeology*, edited by L.J. Zimmerman, K.D. Vitelli, and J. Hollowell-Zimmer, pp. 213–223. Alta Mira Press, Walnut Creek, California.

Society for American Archaeology

1996 Principles of Archaeological Ethics. Electronic document, http://saa.org/AbouttheSociety/PrinciplesofArchaeologicalEthics/tabid/203/Default.aspx, accessed December 23, 2009.

Walker, Mark, and Dean J. Saitta

2002 Teaching the Craft of Archaeology. Theory, Practice, and the Field School. *International Journal of Historical Archaeology* 6(3):199–207.

Wilk, Richard, and Michael B. Schiffer

1991 The Modern Material-Culture Field School: Teaching Archaeology on the University Campus. In *Modern Material Culture: The Archaeology of Us*, edited by R. Gould and M.B. Schiffer, pp. 15–30. Academic Press, New York.

VISUALLY RECONSTRUCTING MIDDLE FRASER CANYON PREHISTORY

REDEFINING A PROCESS

Eric Carlson, Anna Marie Prentiss, Ian Kuijt, Nicole Crossland, and Art Adolph

Eric Carlson and Nicole Crossland are graduate students, and Anna Marie Prentiss is a Professor in the Department of Anthropology at the University of Montana. Ian Kuijt is an Associate Professor in the Department of Anthropology at the University of Notre Dame. Art Adolph is a Xaxl'ip member of the Stl'átl'imx Nation currently working for the Lillooet Tribal Council in Lillooet, British Columbia.

Visual ways of thinking and learning move across, between and through disciplinary commitments. This connection through vision creates a kind of "theoretical convergence" that defines contemporary views of interdisciplinarity... ...Vision is a natural connecting force... [Wenger 1997:35].

Rather than take advantage of the rich possibilities offered by ethnographic knowledge and informed archaeological research, most artists' representations indeed do persist in projecting culturally particular visions of men, women, elders, and children and their roles into the deep past [Gifford-Gonzalez 1993:24].

As with the interpretation of material culture, the process of visually reconstructing the past can require active input from multiple stakeholders, often with varied perspectives. Indeed, it can be extremely difficult to avoid all of the many pitfalls associated with interpretation and illustration of the archaeological past. However, it is only by directly engaging these issues that we will advance as a discipline. With the intent of exploring new methodological approaches to illuminating the past, we recently undertook the development of a series of illustrations depicting prehistoric lifeways of complex hunter-gatherer peoples in the Middle Fraser Canyon ("Mid-Fraser") area of southern British Columbia, Canada (Figures 1-3). In these images we sought to provide basic information in the form of descriptive imagery representing pithouse construction, village layout, etc. We also attempted to convey a visual, and easily absorbed, understanding of past technology, subsistence resource intensification, and emergent social complexity.

Throughout the project, collaboration with the Stl'átl'imx (or Lillooet) people, descendents of the late prehistoric inhabitants of the Mid-Fraser, enriched our understanding, and provided criti-

cal dimensions of understanding the past. For the Stl'átl'imx, the visual representations became a mechanism for integrating traditional and archaeological perspectives. The project also provided images for the community to use when teaching about the past and to assist in interpretative tours of the area's archaeological sites. More importantly, the collaborative process provided a mechanism for the Stl'átl'imx to actively contribute to the "writing" of their own past (McGuire 2004, 2007; Trigger 2006).

The illustrative process can provide a mechanism for collaboration and multivocality and, as Wenger (1997) notes, for the integration of multiple perspectives. We feel that this process as applied to the Mid-Fraser project allowed for a more accurate and an enriched, multidimensional understanding of the past. The following discussion outlines our approach and considers relevant issues associated with artist/archaeologist collaborations and archaeological reconstructions.

Theoretical and Methodological Perspectives

Our project seeks to establish an illustration methodology based on extensive background research and extended dialogue between the illustrator, colleagues, and First Nations informants. Our approach is influenced by the work of Moser (2004), Rudwick (1992), and especially Gifford-Gonzalez (1993), whose work represents an emerging awareness of the relationship between visual representations of the past and the construction of both public and academic knowledge. Moser (2004) states that visual images influence not only the public's views of the past, but also how the science of archaeology is understood and conducted. Moser recognizes a powerful set of characteristics contained within many representations of the past, which are repeated visually from generation to generation. Some of these characteristics include the use of iconographic images, the projecting of elements from the present into the past to make the

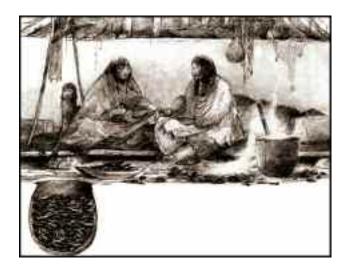


Figure 1. Women and child within a Mid-Fraser pithouse.

images seem more believable, and the use of a realistic rendering style to promote authenticity (Moser 2004).

Gifford-Gonzalez (1993) provides a more particular analysis of reconstruction illustrations. In her study, artists' representations of Paleolithic life in Western Europe were analyzed compositionally to find, among other things, patterns in the treatment of gender roles. She found that when women were represented in the reconstruction illustrations, they were more likely to be shown performing a more narrow range of tasks than men and were usually placed compositionally to the side of, or behind, males. Men were almost never seen with children. Similar to Moser, Gifford-Gonzalez sees in the images of her study a set of repeating characteristics that infuse the drawings with inaccuracies, including gender and ageist stereotypes. Gifford-Gonzalez terms these powerful iconographic elements schemata, and traces the use and discussion of these elements to fine art traditions of the Renaissance and early Antiquarian periods. She contends that schemata have persisted in representations of the past because of a cycle of poor communication between scientists and artists. Given insufficient data and too little dialogue with the scientist, an artist attempting to depict a scene from the past is left with major gaps in her/his knowledge. The artist is then forced to fall back subconsciously on the powerful and culturally pervasive schemata of Western culture, thereby ensuring the cycle repeats once again with the publication of the image. Gifford-Gonzalez calls for closer and more intensive dialogue between scientists and artists to overcome the perpetuation of schemata.

In our Mid-Fraser illustration project we tried to address the problem of schemata in three ways. First, it was understood that the archaeologists and the First Nations members would be con-



Figure 2. Activity area on a pithouse roof, Keatley Creek village, ca. 1200 B.P.

structing the content and layout of the images as completely as possible before having the artist begin drawing. Written narratives and thumbnail sketches were completed by the contributors and then given to the artist. It was understood that the artist would act merely as a scribe, and that all details would flow from the people who knew the material best. Second, an ongoing and intensive dialogue was established among artist, the First Nation groups, and the archaeologists. Through open dialogue, specific questions about details of the image continuously emerged and were quickly answered. Lastly, it was understood that a series of drafts would be created for each image, a process we call revisioning. This allowed all parties to remain apprised of the progress of the illustrator, and to contribute at any stage in the process. The combination of these three steps, at times repeated multiple times, allowed for an evolving process in which all parties were contributing throughout. Importantly, these steps created a comfortable dialogue and flow of information. It also allowed the archaeologists and First Nations collaborators to gradually realize the potential of the images to express ideas in novel ways.

Illustrating Mid-Fraser Prehistory

For the illustrator, as well as the archaeologist, the Mid-Fraser region provides a unique opportunity to closely correlate the ethnographic data with the archaeological record. A rich body of written and visual imagery is available from the work of early ethnographers. Additionally, the willingness of the Stl'átl'imx, direct descendents of the prehistoric peoples of the region, to share their cultural heritage greatly enhanced the range and depth of understanding for researchers. These factors provide an enriched and particularly detailed view of the past that other studies of complex hunter-gatherers are rarely afforded. Our illustration project was designed to portray elements of the rich past of the Stl'átl'imx people.

Multiple sources of information (archaeology, ethnography, field visits, and tribal collaboration) were consulted in order to

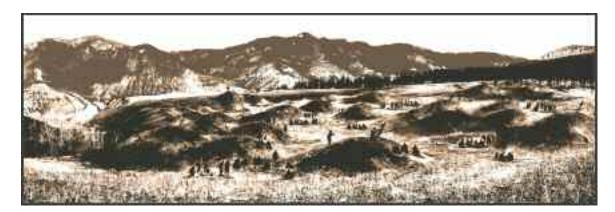


Figure 3. Reconstruction of the Keatley Creek village at peak size, perhaps ca. 1200 B.P.

generate the visual representations. Decades of Mid-Fraser archaeological research provided specific details of household architecture, tools, and food remains (Hayden 1997; Lepofsky et al. 1996; Prentiss et al. 2003, 2004, 2007, 2008). The rich ethnographic record of the Mid-Fraser area provided another essential source of information. Teit's (1906) ethnography of the Lillooet (Stl'átl'imx) has been a critical aid to archaeologists interpreting the archaeology of the past 2000 years in the Mid-Fraser (e.g. Hayden 1997).

The lead author and the illustrator, Carlson, traveled to the Mid-Fraser region in August 2005 to visit each of the sites to be depicted. Carlson was able to visit the fishing grounds at Sxetl' (6-Mile Rapids at the confluence of Bridge and Fraser Rivers) while the sockeye salmon run was in full force. He was shown traditional fishing, fish-processing, and wind-drying techniques. In addition, members of the Xwisten (Bridge River) and

the Xaxl'ip (Fountain) Bands took Carlson on tours of two prehistoric village sites. Members of the Stl'átl'imx Nation continued to be integral throughout the process of completing the series of illustrations (Figure 4). The following steps illustrate our approach to the creation of archaeological illustrations for the Mid-Fraser area.

- Drs. Prentiss and Kuijt developed a series of ideas for reconstruction illustrations that expressed specific aspects of their research. Rough thumbnail sketches with detailed narratives describing each scene were generated by them. Archaeological plan-views, profiles, site reports, etc., were compiled to aid in the illustration process.
- The illustrator was given the set of proposals and a dialogue was initiated between archaeologists and illustrator. Dialogue began with a general discussion about each proposed

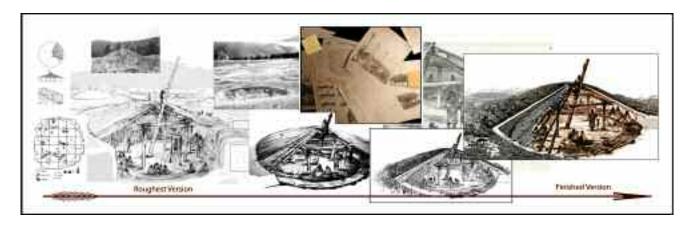


Figure 4. Sequence of rough drafts leading to a final image mixed with sample of source material.

image and the concept to be expressed.

- The illustrator created first drafts of all illustrations in rough form to get all parties on the same page. This was accomplished during/after trip to site locations and benefited from ethnographic information and meetings with First Nations informants.
- Preliminary illustrations were sent to all interested parties for comment. In our case, images were sent to both Prentiss and Kuijt, as well as to members of the Stl'átl'imx Nation, for feedback. Comments were written directly on blown-up hard copy prints of the images.
- Meetings between Drs. Prentiss and Kuijt and the illustrator were held to discuss alterations to drawings based on feedback from the First Nations collaborators and archaeologists.
- A new set of illustrations was constructed based on results of last meeting. These are drawn in a formal, near-finalized
- A revised set was again sent to archaeologists and collaborators for feedback.
- A final meeting between the artist and Drs. Prentiss and Kuijt was held to address any additional concerns.
- Final revisions of illustrations were completed and images put into a publishable form.

Issues in Generating Images of the Past

As Gifford-Gonzalez (1993) pointed out, the traditional illustrative process through which reconstruction illustrations are often produced does not lend itself to accurate depictions of the past. As illustrators and archaeologists ourselves, we have experienced this flawed process firsthand. For example, one of us (Carlson) was recently commissioned to complete two reconstruction illustrations for a documentary film depicting prehistoric life in the Near East. After negotiating for additional time, Carlson was allowed less than one week to complete two complex illustrations consisting of a whole village scene, and an agricultural scene with a village in the background. All communications concerning the images were with the film producers and not with any of the archaeologists interviewed in the show. The film producers were working under a tight deadline themselves, which obviated any dialog that may have aided in the completion of more accurate images. In the end, Carlson was given limited critique of his work that concerned only issues of aesthetics, not accuracy. Although this is only one incident, the example typifies elements of the traditional process through which reconstruction illustrations are commissioned, modified and eventually finalized (and one which we seek to redefine). Table 1 is a brief summation of these challenges as well as suggestions for improvement.

Table 1. Problems Generating Images of the Past and Suggested Remedies

	roblems: hort notice	Remedies: Use foresight and give the illustrator ample time to prepare for project.
ill	o background data given to ustrator (not a specific site, but generalized image)	Prepare a packet of information for the illustrator. Include litera- ture, photos, plan-views, thumb- nail sketches, etc., and focus on a specific site.
gi	o contact between archaeolo- ist(s) and illustrator; contact nly with producers	Initiate contact between special- ist/archaeologist and the illustra- tor. Do not expect the illustrator to be knowledgeable about sub- ject.
	ot sufficient venue/time for dis- ussion	Establish a dialog with the illustrator early on to keep apprised of progress. Realize that dialog is the most important factor in having an accurate image created.
	ritique only of aesthetics, not ubject matter	The first draft must be critiqued for accuracy! Illustrators will rarely

Conclusions

Archaeological reconstructions of the past are complex interpretations based on multiple voices. When successful, such illustrations allow different stakeholders to discuss their views of the past and, as such, facilitate dialog, resulting in more holistic and integrative perspectives on the past. This approach not only results in more accurate illustrations, but through this process, the visually integrative potential of reconstruction illustrations offers new perspectives from which archaeologists can interpret their own sites.

produce correct images in the

Generating representations of the past is collaborative. It should be understood that the illustrations created for the Mid-Fraser series are not the work of a single illustrator, but the work of a team. The role of the illustrator must shift from being the primary agent in the process. Maintaining the primary role risks the perpetuation of schemata. His or her new role should be less that of interpreting the data and more of establishing and maintaining dialog between all parties, indeed demanding a continuous flow of information between all parties, throughout the stages of the process. Again, it is the researchers and First Nations collaborators who provide the interpretations and the visual conceptualizations that form the structure of the images. This process should result in more accurate visual imagery and,

in addition, allow the researchers and collaborators to learn the potential of visual thinking over the course of the project.

Lastly, seeing representational depictions of the past as a dynamic process shifts our conceptualization of the final image. As perceptions of the past change, so should the images be continuously updated and revised. In other words, and borrowing from Vonnegut (1969), the images must remain unstuck in time.

References Cited

Gifford-Gonzalez, Diane

1993 You can't run but you can hide: Representations of Women's Work in Illustrations of Paleolithic Life. Visual Anthropology Review 9:22–41.

Hayden, Brian

1997 The Pithouses of Keatley Creek: Complex Hunter-Gatherers of the Northern Plateau. Harcourt Brace, Fort Worth.

Lepofsky, Dana, Karla D. Kusmer, Brian Hayden, and Kenneth P. Lertzman

1996 Reconstructing Prehistoric Socioeconomies from Paleoethnobotanical and Zooarchaeological Data: An Example from the British Columbia Plateau. *Journal of Ethnobiology* 16:31–62.

McGuire, Randall

2004 Contested Pasts: Archaeology and Native Americans. In A Companion to Social Archaeology, edited by L. Meskell and R. Preucel, pp. 374–396. Blackwell, Malden, Massachusetts.

2007 A Marxist Archaeology, Percheron Press, New York.

Moser, Stephanie

2004 Archaeological Representation: The Visual Conventions for Constructing Knowledge about the Past. In Archaeological Theory Today, edited by I. Hodder, pp. 262–283. Blackwell, Malden, Massachusetts.

Prentiss, Anna Marie, Guy Cross, Thomas A. Foor, Mathew Hogan, Dirk Markle, and David S. Clarke

2008 Evolution of a Late Prehistoric Winter Village on the Interior Plateau of British Columbia: Geophysical Investigations, Radiocarbon Dating, and Spatial Analysis of the Bridge River Site. *American Antiquity* 73:59–82.

Prentiss, Anna Marie, N. Lyons, L.H. Harris, M.R.P. Burns, and T.M. Godin

2007 The Emergence of Status Inequality in Intermediate Scale Societies: a Demographic and Socio-Economic History of the Keatley Creek Site, British Columbia. *Journal of Anthropological Archaeology* 26:299–327.

Prentiss, William C., and Ian Kuijt (editors)

2004 Complex Hunter-Gatherers: Evolution and Organization of Prehistoric Communities on the Plateau of Northwestern North America. University of Utah Press, Salt Lake City.

Prentiss, William C., M. Lenert, Thomas A. Foor, Nathan B. Goodale, and Trinity Schlegel

2003 Radiocarbon Dating at Keatley Creek: The Chronology of Occupation at a Complex Hunter-Gatherer Village. American Antiquity 68:719–735.

Rudwick, M.J.S.

1992 Scenes from Deep Time: Early Pictorial Representations of the Prehistoric World. University of Chicago Press, Chicago.

Teit, James A.

1906 The Lillooet Indians. Memoirs of the American Museum of Natural History 4(5). American Museum of Natural History, New York.

Trigger, Bruce G.

2006 A History of Archaeological Thought. Cambridge University Press, Cambridge.

Vonnegut, Kurt

1969 Slaughterhouse Five. Delacorte Press, New York

Wenger, Robert

1997 Visual Art, Archaeology and Gestalt. Leonardo 30:35-46.

Note

1. In a similar project Carlson is working with other Stl'átl'imx people who have suggested arranging the visual composition so that important geologic forms that tie into stories of myth time would be visible. The archaeological past is thus combined with the cultural/mythological past through the reconstruction illustration.



THE UNIQUE ROLES OF ICOMOS AND ICAHM IN THE WORLD PRESERVATION COMMUNITY

Douglas C. Comer

Douglas Comer is ICAHM Co-President (with Willem Willems, Leiden University) and SAA Representative to the U.S./ICOMOS Board of Trustees

lobalization has been upon us for decades; we can hope that we have just entered a new era of constructive engagement with it. There are two organizations that offer you the means to participate in this as archaeologists. These are the International Council on Monuments and Sites (ICOMOS) and one of its key scientific committees, the International Committee on Archaeological Heritage Management (ICAHM). As with the SAA, they offer the means by which to exchange new ideas, findings, technologies, and methods pertinent to the field of archaeology. More importantly, they function as essential elements in programs that have been established by UNESCO to preserve archaeological and other cultural resources.

The U.S. remains over one billion dollars in debt to the United Nations. We alone among all countries in the world have declared that we do not intend to ratify the Kyoto Protocols. Within the realm of cultural resource management, however, the U.S. has just ended a fifteen-year period during which no U.S. sites were nominated to the World Heritage List. As improbable as it might sound, that we have not done so is due in part to the concern that listing a site is tantamount to relinquishing a bit of U.S. sovereignty. This, of course, is nonsense. Sovereignty of a World Heritage Site is wholly retained by the state that nominated it. Listing a site carries with it only the recognition of its outstanding value to humanity.

A Brief History of ICOMOS and ICAHM

In 1972, The United States became the first country to ratify the World Heritage Convention, which stands today as the most widely accepted international treaty. By no coincidence, this was done by President Richard Nixon one hundred years to the day from the creation of the first National Park in the United States. Despite the Cold War, the signing took place in an era that, in comparison to that of the least decade, was one of international cooperation. In the late 1960s and early 1970s, the U.S. sent personnel that were thoroughly familiar with both the international preservation protocols established by the International Council on Monuments and Sites (ICOMOS) and the U.S. National

Park Service model to UNESCO headquarters in Paris. There they hammered out the Convention. The Convention established a World Heritage Committee, which, like the U.S. Park Service, would facilitate identification of the most important cultural and natural sites and take the leadership role in conserving not only such preeminently important sites, but also any sites set aside for the preservation of cultural and natural resources. UNESCO designated ICOMOS and the International Union for the Conservation of Nature (IUCN) as the essential advisory bodies to the Committee, the former for cultural resource issues and the latter for matters related to natural resources. Advice was to be based on the best available science and conservation practice.

Three-fourths of the 878 World Heritage Sites currently inscribed on the World Heritage List are cultural sites. Many of these are generally regarded as being archaeological. Virtually all cultural sites, including those listed primarily because of their outstanding architectural or engineering characteristics, contain subsurface materials that are highly pertinent to the historic and scientific values associated with them. The same can be said of sites listed because of natural resource values. For all of these reasons, ICAHM was formed in 1990 to promote international cooperation in the field of archaeological heritage management and to advise ICOMOS on archaeological heritage management issues. It is important to note here that membership in ICAHM is not restricted to archaeologists. Members include anyone associated with management of archaeological sites and resources. Among them are managers of specific archaeological sites, government employees with cultural resource management responsibilities, material and structural conservators, and professionals and managers affiliated with both nonprofit and for-profit organizations.

The Need for Archaeologists

While ICAHM depends upon the energies of individuals from many different fields, the participation of practicing archaeologists remains essential. Archaeologists have intimate knowledge of the resources to be managed and preserved, but their expertise includes much more. In the popular imagination, archaeologists simply excavate and make discoveries. In reality, archaeologists succeed in expanding human knowledge by seeing the materials with which they deal—not just objects from below ground, but also those above, as well as primary and secondary documents and oral histories—in environmental and cultural context. It is this sensitivity to context that is most valuable to ICOMOS and ICAHM. Without it, sites that contain scientific and historical importance of great interest and importance will go unrecognized and unprotected.

What We Have Done and What We Will Do

While it is probably fair to say that ICOMOS and ICAHM have served the purposes of the World Heritage Convention well in the past, the challenges to these organizations have increased as the Convention has become more completely implemented. There are an increasing number of World Heritage Sites. Also, threats to inscribed sites, particularly archaeological sites, have grown in number and severity as industrialization and globalization affect even those places that were isolated a few decades ago. In recognition of this, ICOMOS has formally acknowledged the fundamental role that scientific committees like ICAHM must play in the document entitled, Eger-Xi'an Principles for The International Scientific Committees of ICOMOS (revised at the Quebec City ICOMOS General Assembly, 2008), which describes the objectives of ICOMOS scientific committees and their role within the ICOMOS. Perhaps the core of that document is as follows:

The International [Scientific] Committees (ISCs) are the vehicles through which ICOMOS brings together, develops and serves its worldwide membership according to fields of specialized interest. ICOMOS expects the ISCs to be at the heart of scientific inquiry and exchange in their domains and to share knowledge among them to foster a multi-disciplinary approach to heritage protection and management, in fulfillment of the goals of ICOMOS as stated in Article 5.b. of its statutes: "Gather, study and disseminate information concerning principles, techniques and policies" related to heritage protection. ICO-MOS will support its ISCs to actively pursue programmes that advance the field by defining research needs, stimulating and supporting research activity, increasing exchange and dissemination in order to promote greater understanding in the heritage field and guaranteeing the generational renewal of all heritage professions within and outside of ICOMOS.

In the past, ICAHM has fulfilled this mandate in a number of ways. Just a few examples are that it has provided experts to conduct both desk audits and field visits in preparation for evalua-

tion of nominations of properties to the World Heritage List, participated in monitoring of conditions at World Heritage Sites in order to ascertain problems that might prompt the inclusion of the property in question on the list of endangered World Heritage Sites, and released statements regarding issues of general concern to the preservation community. In respect to the last of these, they have issued press releases regarding our objections to valorization by the popular press of activities that amount to looting of underwater and terrestrial sites, and statements regarding the effects of climate change on cultural sites. They have also presented resolutions to the ICOMOS General Assembly urging action by states parties both on specific matters, such as the reconstruction of a collapsed shelter at the site of Akrotiri on the island of Santorini in Greece, and on general ones, like making "gray literature" more accessible to qualified researchers. ICAHM members have also published about such issues. Among venues where this has been done is the ICO-MOS Heritage at Risk (H@R) series, in which ICAHM members have critically examined threats to cultural resources as diverse as the lack of funding for cataloguing of artifacts retrieved from archaeological excavations at Independence National Park in Philadelphia to the practice of rescue archaeology in Japan.

Such activities, however, have been undertaken by a relatively small number of individuals. Scientific committees have generally included from a handful to a few dozen people that have spent lifetimes wrestling with international cultural resource management issues, usually on behalf of large nonprofits or government organizations. The task before us is, frankly, too large to be effectively addressed by a small number of people. Cultural resource management has become established in all sectors in developed countries over the past three decades. It is time that the preservation communities in less developed parts of the world have the opportunity to share in what has been learned.

In part, we can do this by setting a good example at home. In the United States, for example, ICAHM proposes to employ its membership in a number of activities in the coming years. These include:

- Advocating for World Heritage Sites. This will involve explaining what it means to be a World Heritage Site and that it entails no loss of sovereignty.
- Assisting in the nomination of sites in the United States for inscription on the World Heritage List. These will very likely involve "serial nominations," that is, nomination of a number of exemplary sites that embody the same cultural phenomena; for example, Early Human Occupation Sites in the New World, or mounds sites associated with a variety of prehistoric cultures in what is now the United States.

ARTICLE

 Forming Friends Groups that will assist managers of World Heritage Sites in the United States. Many of these sites are under funded and understaffed.

Archaeologists from the United States can also participate on an international level. Among the ways that this can be done are by:

- Performing desk audits and site evaluations of World Heritage List nominations. We need to draw upon the best qualified people for this, and given the number and variety of nominations expected, these individuals will comprise a very large pool.
- Monitoring of site conditions, especially the adequacy of site management. This kind of activity will require an even larger er body of experts, given the number of sites already inscribed.
- Participating in efforts to formulate and update international standards.
- Providing expertise via a global network of professionals.
- Reviewing development in terms of best practices.
- Establishing best practices for archaeological work around the world.
- · Working with natural resource conservation groups to pre-

serve landscapes that contain interconnected cultural resources (e.g., the Chacoan road system, Incan trails, and ancient trade and migration routes around the world).

It is quite likely that you could participate in one or more of these activities to the benefit of the World Heritage Convention and your own. As many people have found, one does not fully understand what one knows until it is time to make use of it. You have probably seen examples of this as it applies to research. In the present case, we ask you to make use of your knowledge not only as it applies to research, but to preservation. From your own experience, you must know that the material remains that we study are being destroyed or ripped from context at a rate that makes one wonder what will be left to examine in a century. Finally, while you know how archaeology is practiced and cultural resources are managed in the United States and perhaps another country or two, have you ever wondered how it is done in France, or Ghana, or Japan? Joining ICOMOS and ICAHM can be your way of finding out.

Additional information and membership in ICOMOS and ICAHM can be secured through U.S./ICOMOS. To do this, go to www.usicomos.org, then follow the membership links and select ICAHM as your scientific committee. Questions can be addressed to dcomer@culturalsite.com.

CLARK, from page 42 <

Klein, Richard G.

2008 Out of Africa and the Evolution of Human Behavior. Evolutionary Anthropology 17: 267-281.

McIlwain, Colin

2007 US Higher Education: The Arizona Experiment. *Nature* 446:968-970.

Shott, Michael J.

2005 Two Cultures: Thought and Practice in British and North American archaeology. World Archaeology 37: 1-10.

Soloway, Albert H.

2006 Failed Grade—The Corporatization and Decline of Higher Education. American University and Colleges Press, Salt Lake City.

Trigger, Bruce

1998 Sociocultural Evolution. Blackwell Publishers, Malden, MA. Washburn, Jenniefer

2005 University Inc. The Corporate Corruption of Higher Education. Basic Books, New York.

Wylie, Alison

2008 Legacies of Collaboration: Transformative Criticism in Archaeology. Archaeology Division Distinguished Lecture. Annual Meeting of the American Anthropological Association, San Francisco.

Notes

- 1. See, e.g., the *Journal of Human Evolution*—its citation index clobbers those of the journals listed in Killick and Goldberg (2009: Table 1).
- 2. And, evidently, elsewhere—the Institute of Archaeology at University College London, famous for its materials science program and its aspirations for global coverage, has no faculty with North American expertise (Michael Shott, personal communication May 17, 2009).
- 3. What is the point in speeding up degree production if there continue to be few jobs available for archaeologists with advanced degrees? Given the current economic downturn, it is highly unlikely that many "senior scholars" will relinquish their positions in the near future.
- 4. But then I'm a "dinosaur," unable or unwilling to "get with the program," and not in the least sympathetic to the corporate mentality that has come to prevail here (see, e.g., Bok [2003], Crow [2007], Djerassi [2007], Greenberg [2007], Hersh and Merrow [2005], Irwin [2007], McIlvain [2007], Soloway [2006], and Washburn [2005]). I think academic corporatism is the greatest threat the American public university system has ever faced, I despise it, and I have yet to seen any credible justification for or defense of it (Clark 2006, 2008). Evidently, some of my colleagues would disagree (Barton et al. 2006).

CRISES AND SOLUTIONS IN AMERICAN ARCHAEOLOGY

Michael Shott

Michael Shott is Professor and Chair in the Department of Classical Studies, Anthropology and Archaeology at the University of Akron.

ike most people, I drive a car. I did not design or build my car, nor do I repair it when it breaks down. Engineers designed it, autoworkers built it, mechanics service it. Thus, I enjoy the (dubious) benefits of car ownership without the need for graduate training in engineering, apprenticeship in an assembly plant, or skill in auto repair. In my archaeological practice, I sometimes consult geologists, rely upon physics expertise for dating, and generally enjoy the benefits of physical-science theory whenever necessary. My practice may be limited or flawed in proportion to my ignorance of physical science. But I need not be a geologist or physicist to practice archaeology, any more than I must be an engineer to drive a car.

Killick and Goldberg (2009) advocate a fundamental reorientation of training and practice in American archaeology. From anthropology, they urge much greater emphasis upon physical science applied to archaeology. In the process, the discipline that Killick and Goldberg envision would weaken or dissolve its ties to anthropology, and resemble the brand of archaeology practiced widely in Europe.

Killick and Goldberg's thesis is half-right; American archaeology is too dependent upon anthropological theory (partly for historical reasons that distinguish the trajectories of archaeology here and in Europe), a condition that consigns it to dependent status within anthropology. Moreover, there is no doubting the value to archaeology of physical-science methods. Yet Killick and Goldberg's prescription would cause new problems, some sketched elsewhere (Shott 2005), in the process of solving real or imagined ones. It is equivalent to confining car ownership to qualified engineers. Physical science offers techniques suitable to answering questions about the past addressed to the material record. But without a theoretical framework that provides the questions and guides the use of physical-science methods among others, the prescription reduces archaeology to a set of instrumental techniques, to a car without a driver.

The Real Crisis in American Archaeology

Currently, our theory is anthropological. Whatever its merits, archaeology requires three other kinds of theory. The first is theory of how the record formed. Its foundation exists in formation theory, but requires much development. Geology is part of, but does not encompass, that theory. As Killick and Goldberg argue, geology will contribute to its improvement. The second is diachronic theory of how and why cultures change over very long periods. We who are old enough to remember the Beatles know that the word "diachronic" once was fashionable in archaeology. Its fall from grace is tragic, because diachronic theory's value was demonstrated long ago (e.g., Plog 1973). Diachronics may be partly anthropological or purely archaeological, a matter unresolved in its neglected state.

The third kind is theory of the material record. Its range is too vast to summarize here, but one small corner can be charted: study of the "shape of time," the long-term trajectories in everything from artifacts to traditions. We routinely construct sequences of past time marked by appearance and disappearance of point types. We must go beyond such description and ask if Type 1 is replaced by Type 2 or changes by degree into Type 2, and develop the criteria by which to distinguish these modes of change. We must ask why Type 1 lasted as long (or short) as it did and why it lasted for longer or shorter than did Type 2. At higher levels, we must ask why cultures or traditions last as long (or short) as they do and whether their trajectories involve rapid growth and long decline or the reverse. We must ask if a tradition's longevity correlated with its population size or trends, its environmental setting, its sociopolitical organization. We must explain the general patterns in trajectories of culture change over a long time. Some of this theory exists, in David Clarke's neglected "time-pattern regularities," for instance the possible immanent tendencies through time to "increasing physical elaboration of the artefact-type" (Clarke 1978:184) or to diversification within traditions.

ARTICLE

At present, the sequences we construct *describe* how the material record patterns in time. This is archaeography, not archaeology. Then we use anthropological theory of behavior and organization on short time scales to devise plausible accounts of the past consistent with patterns of change described. This is accommodation, not necessarily explanation. Inspired by Clarke and others, we must develop the theory that does not rely upon anthropology nor is reducible to physical science. Like diachronics, it remains nascent. Unlike diachronic, it is purely archaeological.

Conclusion

There is much to recommend Killick and Goldberg's (2009) vision. But among its dangers are faculties populated by people who are physical scientists first and archaeologists only second, a preoccupation with method for its own sake, and a corresponding fatal weakness in the connection between method and theory. Whatever the pragmatics of archaeology's academic autonomy—dubious in the current fiscal climate—its first prin-



ciples are evident. The solution is not departments of archaeological science but departments of archaeology. They would be staffed by people who are archaeologists first, whatever their specializations. For comprehensive training and research, departments must include a mix of the honorable journeyman scholars of particular places and times that most of us are, category analysts (e.g., of stone, pottery), methodologists including physical scientists, and theorists in the senses sketched above. Collectively, departments' focus should not be primarily upon geographic area or time period, but theoretical problems and their solutions.

The archaeological patient is ill. It may need an MRI, but not an unfocused barrage of MRIs, CAT scans, and other sophisticated techniques that promise wonderful cures if only we knew what the disease was. Killick and Goldberg's prescription may kill the patient, or at least leave it unrecognizable to tender-hearted fools, like me, who love it. More physical science is reasonable. But the cure demands accurate diagnosis of the affliction: neglect of formation theory and utter disregard of both diachronics and theory of the archaeological record itself. The cure itself is attention to the theories that will make archaeology an autonomous science. Physical science has a role to play. But it must serve archaeology, not dominate it.

References Cited

Clarke, David L.

1978 Analytical Archaeology. 2nd edition. Columbia University Press, New York.

Killick, David, and Paul Goldberg

2009 A Quiet Crisis in American Archaeology. The SAA Archaeological Record 9(1):6-10, 40.

Plog, Fred T.

1973 Diachronic Anthropology. In Research and Theory in Current Archaeology, edited by Charles Redman, pp. 181–198. Wiley, New York.

Shott, Michael J.

2005 Two Cultures: Thought and Practice in British and North American Archaeology. World Archaeology 37:1–10.

SHOULD ONE SIZE FIT ALL?

SOME OBSERVATIONS ON KILLICK & GOLDBERG

Geoffrey A. Clark

Geoffrey Clark is Regent's Professor in the School of Human Evolution and Social Change at Arizona State University.

villick and Goldberg make a case for free-standing archaeology departments like the one at Boston University, with amaterials scientists on staff to insure that graduates of those programs have a basic knowledge of radiometric dating methods, geoarchaeology, stable isotope analysis, GIS, archaeomagnetism, etc., that would result in more sophisticated applications of those techniques to the range of questions and problems with which archaeology must contend. They also claim archaeology is a science in its own right, and that it should distance itself from anthropology because widespread antipathy toward science by post-modernists infects the enterprise as a whole and stands in the way of implementing change. Over the past 25 years, Europe (and parts of Asia) have poured hundreds of millions of dollars into materials science, while U.S. funding has fallen far behind. The absence of a single national science agency that recognizes an autonomous archaeology capable of incorporating materials science in graduate programs (and research in general) is viewed as another obstacle to the development of archaeological science. A lot to think about.

As a paleoarchaeologist interested in human evolution in deep time, and all too familiar with the growing importance of European contributions to its literature, the essay struck a responsive chord with me. In my experience, Killick and Goldberg's empirical claims are accurate enough. On a trip to Japan some years ago, I was surprised to learn there were ca. 30,000 professional archaeologists in that country, and that public archaeology was supported annually by hundreds of billions of yen—figures that dwarfed our expenditures both absolutely and in relative terms, given a population less than half that of the U.S. That said, I am concerned by the solution Killick and Goldberg propose, and by their contention that archaeology is a science in its own right. I will address these concerns in reverse order below, but first I question why the U.S. puts so little money into public archaeology.

In my view, the main reason archaeology is better funded in Europe and the developed parts of Asia is that it is perceived—rightly or wrongly—to be the archaeology of the indigenous inhabitants, rather than the archaeology of the "other," as is the

case in North America. Despite legitimate concerns for the preservation of the Native American heritage, the connection between "us" and "them" is much more tenuous in the general population here than it is in the Old World, where archaeology often plays a role in the creation of national identity, and sometimes serves to bolster claims of eminent domain (e.g., as with Eretz Israel). Americans simply do not relate to the Native American past in the same way that many Old World nations relate to theirs, and this has political consequences. I think this is why public funding for archaeology is given such a low priority in the U.S.²

Is archaeology really a science in its own right, as Killick and Goldberg claim? Does it have an overarching conceptual framework that would lend coherency and legitimacy to its research questions? Or is it simply a collection of methods in search of a theory? I began my career as a "second-generation processualist" (a student of Bill Longacre), but more than 40 years have elapsed since I wrote my MA thesis on the mortuary program at Grasshopper (Clark 1969). What follows is a brief effort to characterize change in American archaeology over the past half-century by someone who has not been much involved in it.

Historically, of course, archaeology looked to anthropology for its theory, concepts, and terms. Anthropology "legitimatized" questions and problems in archaeological research. A major emphasis of early processual archaeology was the quest for material correlates of anthropological analytical units (e.g., descent groups, postmarital residence) in the past. In the 1980s, that began to change as anthropology's mandate expanded to include many aspects of applied research at the same time its traditional subject matter was increasingly appropriated by other larger, and better funded, disciplines. Processualism was subjected to critical scrutiny for the first time. The 1980s also saw the rise of CRM, and an increasing divergence between academic and public archaeology. SAA membership, until then dominated by academics, shifted more in the direction of applied research. The AAA was also changing, undergoing a kind of "intellectual Balkanization" as membership grew, sections proliferated (there are 38 now), and just what constituted

anthropology became more difficult to define, and to distinguish from the subject matter of other fields. By the early 1990s, anthropology had become so diverse that its capacity to serve as a conceptual framework for archaeology was severely compromised. Despite all this, and with a few exceptions, no modification of anthropology curricula took place. Nominal acknowledgment of anthropology as a source of ideas, concepts, problems, etc., continues today. I suspect Killick and Goldberg would mostly agree with this sketch of developments in anthropology over the past 50 years, and with the problems that have arisen from them. Where we likely differ is in what to do about them. I do not think the solution they propose (more material science training, less anthropology) is a particularly good one. There are several reasons for this, the chief one being where do we get our overarching conceptual framework if not from anthropology?

It seems to me that answers to that question depend to a certain extent on the kind of archaeology one does. Having received my formal education in the U.S., I like to think of myself as an American archaeologist, even though I do not work in the New World. One could always take the position, as Michael Shott (2005, this issue) has done, that we need to develop an intellectually, theoretically independent discipline comprising models of formation processes, diachronic change, and the long-term material record that he views as essential to a genuinely archaeological science. This has much to recommend it, and it might even work for American archaeology, with its relatively uniform intellectual tradition, shallow time frame, rich ethnographic record, and more or less sympathetic descendant communities. But it doesn't work very well for the archaeology of deep time, where one cannot even assume the creators of (or contributors to) the material record were beings like ourselves. Moreover, it ignores or de-emphasizes significant practical and political considerations, not least of which are the institutional contexts within which archaeology programs are currently embedded. It also implies we will have to start over again, more or less from scratch—a prospect people of my generation find daunting indeed.

As some *The SAA Archaeological Record* readers might know, I think it important that *any* discipline that aspires to be "science-like" have some kind of a relatively explicit, overarching conceptual framework (what I have called a metaphysical paradigm [Clark 1993]). Without one, how do we assign meaning to pattern and legitimacy to questions and problems framed now under a multiplicity of partly distinct, partly overlapping paradigms? Can anthropology provide that framework? Is it sufficiently inclusive to encompass all the different aspects of North American archaeology? Of archaeology in general? If archaeology distances itself from, or severs its connection with anthropology, how much will be lost in the process? Just as there are many construals of archaeology, there are many construals of anthropology, each in its own social and historical context, each

a "fuzzy set" that changes through time, differs from one region to the next, and that also varies idiosyncratically (Trigger 1998). It seems to me that anthropology presently has no discernible conceptual framework (except as defined by vacuous generalities like "the sciences of humankind"). Consequently, we tend to become consumers of one another's research conclusions, inevitably affected by perceptions of how a particular researcher's approach squares with our own, and other bias factors like whether or not a particular question or problem is even worth investigating. Maybe that's the best we can do.

I have given this a lot of thought, and have come to the conclusion that any such framework (whatever form it might take) should at least be consistent with the core concepts of evolutionary biology, unrivalled by anything in social science in its power and generality (Clark 2003). Humans are, after all, only animals, albeit highly intelligent, technologically sophisticated and socially complex ones, nor are we unique except insofar as any species is unique—by virtue of possessing a unique evolutionary heritage. Our early ancestors might best be conceptualized as bipedal apes with social organizations, foraging strategies, mating practices, ranging behaviors, life histories and demographic characteristics more closely resembling those of the living higher primates than those of the foragers known from ethnography (Clark 1997). Perhaps I feel this way because evolutionary biology is the most appropriate conceptual framework for the study of human biological and cultural evolution in the remote past, and because the archaeology of human ancestry is materially impoverished compared to that of the recent time frames in which most Americanists work. I recognize that others take issue with whether or not a unifying conceptual framework is desirable or even necessary (e.g., Klein 2008; Wylie 2008). Whatever the case, it would certainly make our lives a lot simpler if we had one, and our science more powerful, credible, and convincing to a skeptical public.

I am reluctant to abandon anthropology (so long as its an anthropology consistent with evolutionary biology) because I have seen the downside of "archaeology as archaeology" as practiced in the Old World (i.e., the strictly empirical, atheoretical pursuit of the utterly trivial), and because, arguing from the perspective of a North Americanist, I cannot think of anything that might replace it (Clark 2003). It is not realistic to expect materials scientists to have much of an appreciation of anthropological questions and problems—that must continue to come from us. But I agree with Killick and Goldberg that more exposure to materials science would be enormously beneficial to us all. The question is how to balance that desideratum with the (questionable) effort to speed up degree production.³ American archaeology has had a long and successful history of collaboration with materials scientists, so I do not think that is the problem. Nor do I perceive most social anthropologists to be anti-science, postmodern relativists, as Killick and Goldberg do. Except for a small (but vocal) minority, most of them are every bit as materialist as their archaeological colleagues are.

Now nearing the end of my career, I continue to believe I have benefited enormously from an anthropological background, and that my exposure to other aspects of anthropology has helped me to be both a better instructor and a better scientist. I do not think archaeology is a discipline in its own right, nor can it stand alone in the absence of any discernible conceptual framework. A good solution that would not prolong the graduate experience unduly would be to do what the University of Arizona has done-have a generalist materials scientist (i.e., Killick) on staff, and make his or her survey course(s) mandatory for all archaeology graduate students. Or, in the context of an institution-wide reorganization, we could try to break down or minimize disciplinary boundaries through flexible, crossdisciplinary appointments like those at Arizona State University (ASU), and get our materials science that way. In 2005, the Arizona Board of Regents (ABOR) "disestablished" the ASU anthropology department, and created a School of Human Evolution & Social Change (SHESC), comprising the existing core faculty, new hires in anthropology, and other social and natural scientists formerly affiliated with other units. Although SHESC inarguably facilitates cross-disciplinary research on both the faculty and student levels (obviously, a very good thing), it is not at all clear to me, at least, how this will work out over the long term. In my view, having lost our name, we also run the risk of losing our identity, our integrity as a unit and—ultimately—our visibility as a recognizable anthropology graduate program, something I think it important to retain.4

As I was trying to assemble my thoughts on all this, four things kept coming to mind. One was that, globally at least, archaeology is, indeed, only a collection of methods for wringing information out of the past. Those methods can be, and are, pressed into the service of any historical discipline, any "ecology" with time depth (e.g., paleoecology), and a host of other "ologies" that share no overarching conceptual framework whatsoever (hence my preference for evolutionary biology—if you're going to subscribe to a particular metaphysical paradigm, you might as well pick one with power and generality).

The second thing that occurred to me is the fad-like, insubstantial nature of what passes for "theory" in American archaeology. We do not build on grounded theory in the same way the life or physical sciences do (Clark 1987). Hypotheses are never really confirmed or disconfirmed (most of them cannot even be formulated in a testable way), questions are never really answered in archaeology—after awhile, they simply cease to be "interesting," are replaced by some hot new idea, and the cycle repeats itself indefinitely. As one of our recent Ph.Ds put it: "There is an

attitude problem (in American archaeology) . . . that favors Fancy Dan theoretical constructions over hard data, many of which turn out to be useless" (Christopher Papalas, personal communication, 10 April, 2009). Or, to quote Denise Schmandt-Beserat, probably the world's leading authority on the origins of writing: "If I had to read and digest all the relevant theory, I would never have gotten around to doing any actual original work" (personal communication, May 21, 2009). While I sympathize with both observations, and regard them as fundamentally accurate, I feel obligated to point out that "data" are never neutral or bias-free; they have no meaning (some would say existence) apart from the conceptual frameworks that define and contextualize them. What exists apart from our conceptual frameworks are stones and bones in geological contexts, and DNA in petri dishes and electrophoretic gels, but they can only acquire meaning in terms of a conceptual framework (and the more explicit it is, the better). They have no inherent meaning in and of themselves. While I consider anthropology to be divided against itself (and therefore rather incoherent), I think American archaeology will continue to get most of its questions and problems from anthropology, and that archaeologists would be foolish to overlook its rich ethnohistoric record (Clark 2003). It will not get them from archaeology (no matter how restructured), nor from materials science.

Third, there is the practical matter of whether a market exists for archaeological science degree holders outside the few elite institutions largely or wholly dedicated to archaeological research. The experiences of the erstwhile ASU anthropology department over the past 40 years are relevant here. Starting from nothing, in the face of every conceivable obstacle ABOR could throw in our path, and in a state with one of the oldest and best-established anthropology departments in the nation, ASU nevertheless managed to develop a very successful anthropology graduate program. However, and with a few notable exceptions, most of our more than 200 Ph.D.s have found employment in what I regard as good public and private universities where they are expected to teach across the curriculum. Jobs like these are typical of the market both historically and today. If they are perceived to be archaeologists first, and anthropologists second, archaeological scientists would not be competitive for the vast majority of academic positions, nor-in my viewwould they be employable in CRM, which typically outsources whatever specialist analyses might be required to fulfill contractual obligations. So - who is going to hire these people? In other words, there is something to be said for the continued production of anthropological archaeologists because those are the people best suited to the kinds of jobs available now and likely to become available in the future.

What Killick and Goldberg are proposing has implications that go beyond changes in curriculum and in hiring practices. Here

ARTICLE

and everywhere, science is embedded in a social context, itself the product of an historical trajectory. As Killick and Goldberg (2009) acknowledge, the advances to which they refer would never have been possible without generous EEC funding, supplemented by increased national investment in science in general. Archaeology has been the beneficiary of this, but it is only a small part of a massive effort in Europe and in the developed Asian countries to upgrade, expand, and internationalize their science. Pandering to the interests of its large and influential anti-science constituencies, the U.S. has not, so far, made a serious commitment to this effort. In fact, just the reverse has taken place. American science has entered a period of uncertainty and doubt, marked by decreased federal spending in many fields and increased disillusionment on the part of its practitioners. We have also experienced a sharp drop in public confidence in the ability of science to answer significant questions and to resolve significant problems. These disheartening trends are linked, in my view, to widespread public misperceptions about the role of science in society, and just exactly what science "is" or "does." Most Americans simply do not understand what science is about, nor have scientists typically been much concerned to educate them. The people, however, pay the bills.

To be fair, this is not the first time the credibility of science has been called into question, but since most active researchers use as a historical baseline the post-World War II "expansionist" era, the present condition of American science seems all the more desperate. The causes of this unfortunate situation are many and complex, among them are: (1) a scale of social values that focuses on material success but de-emphasizes (even disparages) education and knowledge; (2) the short-term perspective typical of much industry-driven research and development, which has become increasingly maladaptive in the face of foreign competition; and (3) the politically influential religious right, who are fearful of science because of the threat it poses to their core beliefs, suspicious of education in general and higher education in particular, and committed to a "faith-based" world view antithetical to the materialism foundational to all scientific endeavors. There are no easy solutions, but some reassessment of national priorities must eventually take place, and with it, a rebuilding of the scientific infrastructure. It seems to me that such an eventuality is being forced upon us right now by the most massive, global redistribution of wealth in history, and by our declining share in the international marketplace. I hope archaeology will benefit from this reassessment, but if it does, it will be because it is riding on the coattails of funding for science with a capital S, not because of its relative importance in anthropology programs.

I had a lot of trouble writing this essay. As the late, great Roberto Clemente put it: "Beisbol been good to me." Well, anthropology has been good to me, so I find the idea of extracting archaeology from it seriously distasteful. As quaint as it might seem to

some, I believe anthropology continues to have something unique to say about the human career, and how we came to be the way we are. My solution would be to emphasize those parts of it consistent with evolutionary biology, rather than to turn away from it altogether.

References Cited

Barton, C. Michael, and others (listing includes 22 additional authors) 2006 Anthropology at Arizona State University. Anthropology News 47(9):27, 28.

Bok, Derek

2003 Universities in the Marketplace. Harvard University Press, Cambridge, MA.

Clark, Geoffrey A.

- 1969 A preliminary Analysis of Burial Customs at the Grasshopper Site, East-Central Arizona. The Kiva 35:57-86.
- 1987 Paradigms and Paradoxes in Contemporary Archaeology. In Quantitative Research in Archaeology: Progress and Prospects, edited by M. Aldenderfer, pp. 30-60. Sage Publications, Beverly Hills.
- 1993 Paradigms in science and archaeology. *Journal of Archaeological Research* 1:203-234.
- 1997 Aspects of Early Hominid Sociality: An Evolutionary Perspective. In *Rediscovering Darwin: Evolutionary Theory in Archeological Explanation*, edited by C. M. Barton and G. A. Clark, pp. 209-232. Archeological Papers of the American Anthropological Association No. 7, Arlington, Virginia.
- 2003 American Archeology's Uncertain Future. In Archeology is Anthropology, edited by S. Gillespie and D. Nichols, pp. 51-68. Archeological Papers of the American Anthropological Association No. 13, Arlington, Virginia.
- 2006 Corporatism at Arizona State University. Anthropology News 47(6):38-39.
- 2008 How academic corporatism can lead to dictatorships. *Nature* 452:151.

Crow, Michael M.

2007 Research funding in the twenty-first century. Nature 449:405. Djerassi, Carl

2007 Not so sunny view of the events in Arizona. *Nature* 447:1052. Greenberg, Daniel S.

2007 Science for Sale: The Perils, Rewards, and Delusions of Campus Capitalism. University of Chicago Press, Chicago.

Hersh, Richard H., and John Merrow (editors)

2005 Declining by Degrees – Higher Education at Risk. Palgrave-MacMillan, New York.

Irwin, M.

2007 ASU Inc. Phoenix New Times (26 April, 2007).

Killick, David, and Paul Goldberg

2009 A Quiet Crisis in American Archaeology. The SAA Archaeological Record 9(1):6-10, 40.

CLARK, continued on page 36





POSITIONS OPEN

Position: Post-doctoral Scholar (PS) Location: Buffalo, New York

SUNY Buffalo seeks a Post-doctoral Scholar (PS) for its interdisciplinary Institute for European and Mediterranean Archaeology (IEMA). During a 10-month tenure, the PS teaches one graduate seminar (preferably on the topic of the symposium), organizes a symposium, and edits a subsequent volume reflecting IEMA's focus on post-Pleistocene European and Mediterranean anthropological and classical archaeology. Application letter, vitae, list of references, and 3-page description of proposed symposium topic, including intended invitees, must be received by January 31, 2010 for an August 2010 start, pending final budgetary approval. Email application or inquiries to: pbiehl@buffalo.edu. The University at Buffalo is an affirmative action/equal opportunity employer. Closing date for consideration of applicants: January 31, 2010 for an August 2010 start, pending final budgetary approval. Email application or inquiries to Dr. Peter F. Biehl. Director of the Institute for European and Mediterranean Archaeology, State University of New York at Buffalo, 380 MFAC Ellicott Complex, Buffalo, NY 14261; Phone: 716-645-0407; Email: pbiehl@buffalo.edu

Position: Visiting Senior Fellow in Chinese Archaeology

LOCATION: PHILADELPHIA, PENNSYLVANIA

The Department of Anthropology of the University of Pennsylvania and the University of Pennsylvania Museum of Archaeology and Anthropology invite applications from anthropological archaeologists for a three-year visiting position in the study of ancient Chinese civilizations. The faculty appointment will be as a Senior Fellow in the Department of Anthropology with a parallel appointment as a Visiting Assistant Curator in the Asian Section of the University of Pennsylvania Museum. The successful candidate will teach two courses a year in the Anthropology Department and assist in the activities

of the Asian Section. Preference will be given to candidates with active fieldwork in China. Candidates are to apply at: facultysearches.provost.upenn.edu/applicants/Central?quickFind=50747. Includ e a letter of application outlining experience and qualifications; evidence of teaching experience; a current academic vita; the names, addresses, telephone numbers, and email addresses of four professionals who can supply written references. The University of Pennsylvania is an equal opportunity/affirmative action employer. Women and minorities are encouraged to apply.

POSITIONS: SENIOR ARCHAEOLOGIST/ PRINCIPAL INVESTIGATOR AND PART-TIME ARCHAEOLOGISTS LOCATION: CARLSBAD, CA

LSA (a diversified environmental, transportation, and community planning firm with ten California offices, and one office in Fort Collins, Colorado) has two openings in our Carlsbad, CA office: (1) Senior Archaeologist/Principal Investigator with an M.A. in Anthropology (archaeology). The Senior Archaeologist's responsibilities include, but are not limited to: managing, directing, and performing archaeological investigations. The selected candidate should have extensive Southern California job experience, extensive experience managing and directing investigations, and excellent writing skills. (2) Part-time Archaeologists who have a B.A. in Anthropology (Archaeology). The Archaeologists' responsibilities include, but are not limited to, surveying and monitoring for projects throughout Southern California. The selected candidate should have Southern California job experience, especially with surveying and monitoring in Imperial, San Diego, Riverside, San Bernardino, Orange, and Los Angeles Counties. Submit a cover letter and resume via email, or fax to: Human Resources, employment@lsa-assoc.com, fax: 949-553-2019. LSA is an AA/EOE and we participate in E-Verify. For more information about our benefits and LSA, please visit www.lsa-assoc.com.

CALENDAR

2010

February 20–21

The 38th Annual Midwest Conference on Andean and Amazonian Archaeology and Ethnohistory will be hosted by Indiana University - Purdue University Fort Wayne. The conference is free and open to the public, but registration is required. Please visit the website for additional information: http://www.ipfw.edu/anthropology/MWCAAAE/We lcome.html

FEBRUARY 26-28

The 2010 Maya Symposium and Workshop, Great River Cities of the Ancient Maya, will be held at Tulane University, New Orleans. For scheduling details, registration and any other information, please visit http://www.tulane.edu/~mari/MayaSymposium2010.htm or contact us at mari@tulane.edu.

APRIL 14–18

The 75th Anniversary Meeting of the Society for American Archaeology will be held in St. Louis, Missouri. For more information, please visit www.saa.org and read *The SAA Archaeological Record*.

MAY 5-8

The 33rd Society of Ethnobiology Annual Meeting in beautiful Victoria, British Columbia, Canada. This year's meeting theme: "The Meeting Place: Integrating Ethnobiology" celebrates the potential of ethnobiology to bridge disciplines, ideas, and communities, and to foster an understanding of the connections between the biological and cultural worlds. Visit http://ethnobiology.org/conference/upcoming to view our daz-

CALENDAR, continued on page 44



NEWS & NOTES

Dr. Nelly Robles Garcia is the new president of the Archaeology Council, scientific advisory organism of the National Institute of Anthropology and History (INAH), in charge of analyzing, studying and ruling archaeological research in Mexican Territory. She substitutes archaeologist Roberto Garcia Moll, who asked INAH general director, Alfonso de Maria y Campos, to end his period at the front of the advisory organism to retake his work as Maya Culture specialist. The Archaeology Council recognized the labor of Garcia Moll, who during his leadership fomented great archaeological programs such as those in Yaxchilan, Ichkabal, and Chichen Itza. He promoted opening of new archaeological sites as well as tasks related to heritage safeguard, like Izapa, Chiapas highway deviation. He promoted registration of pieces from excavations, and agreements for archaeological salvage and procedures' ruling to safeguard this cultural heritage, showing always his great academic spirit and intellectual honesty.

Nelly Robles, specialist in formulation of Latin American archaeological sites management plans, assumes the leadership of the organism formed in 1970 to recommend archaeological projects of national and international institutions to INAH direction. She received her Archaeology Degree at the National School of Anthropology and History (ENAH) and the Master Degree in Prehispanic Monuments Restoration by the National School of Conservation, Restoration and Museography (ENCRyM). Robles is also certified in Historic Preservation by the University of Georgia, and the same institute gave her the Doctor Degree in Anthropology, with her thesis "Management of Cultural Resources in Mexico: Oaxaca Case." Dr. Robles will be able to continue being Monte Alban Archaeological Zone director, where she coordinated the integration of 2005-2015 Management Plan. She has been ICOMOS-UNESCO evaluating expert for World Heritage List archaeological zones management plans in Central America, and has made evaluation for inclusion in the list for sites such as Leon Viejo, Nicaragua and Paredones, Ecuador. The professional trajectory of the new head of Archaeology Council includes teaching and academic coordination, being responsible of the 5th Monte Alban Round Table organization, which took place in Oaxaca City from September 2nd to 5th 2009.

New in 2010! Summer Institute in Cultural Resource Management. The SRI Foundation, in partnership with the University of New Mexico, will offer an eight-week Summer Institute in Cultural Resource Management. The Summer Institute includes a two-week classroom component and a six-week internship component. The purpose of Summer Institute is to prepare graduate and upper-division undergraduate students for careers in cultural resource management. The Summer Institute is unlike any program offered elsewhere in the United States. The classroom component provides an intensive introduction to the knowledge base, skills, and abilities needed for a career path in cultural resource management (CRM). The internship component provides the student with carefully structured and supervised real-world work experience in a federal, state, local, or tribal government CRM program or a private sector CRM consulting firm. The internship will give the student an opportunity to apply recently acquired knowledge and skills to real-world situations. The internship will provide not only work experience related to the CRM profession but also contacts and supervisor recommendations for future employment.

The Summer Institute in Cultural Resource Management is a 9-credit course. Tuition and course fees are \$2,713 for undergraduates (\$1,913 for tuition and \$800 course fee) and \$2,901 for graduates (\$2,101 for tuition and

\$800 course fee). Room and board at the University of New Mexico in Albuquerque are \$640 for on-campus housing (plus a reimbursable \$100 damage/performance deposit) and \$160 for a meal plan. Housing and subsistence will be provided during the six-week internship for students interning at locations more than two (2) hours from their home. [Note: Tuition and on-campus room and board fees are subject to change.] For more information or to download a student application form, please see our website at http://www.srifoundation.org/.

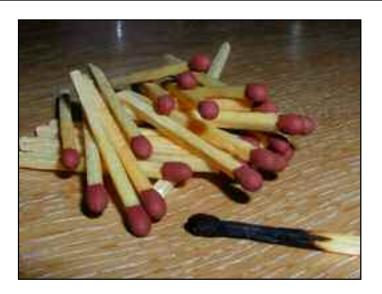
CALENDAR, from page 43

zling line up of papers, sessions, field trips, and special events.

May 24–28

National Park Service archeological prospection workshop at the Knife River Indian Villages National Historic Site near Stanton, North Dakota. Application forms are available on the Midwest Archeological Center's web page (http://www.nps.gov/history/mwac/). For further information, contact Steven L. DeVore: (402) 437-5392 or "steve_de_vore@nps.gov."

We're NOT Playing with Matches!



\$90,000 can be added to the SAA endowments before the end of the year – but only with your help.

The time has come to get on board and help us successfully close out the campaign to "Give the SAA a Gift on Its 75th." The following individuals and organizations have agreed to match the first \$45,000 in new gifts made to the campaign after September 1, 2009. This is the time when your gift really matters.

Anonymous \$15,000 Desert Archaeology, Inc. \$15,000 Statistical Research, Inc. \$15,000

Match it or lose it! Our matching gift donors are serious – they want to see their SAA colleagues step up and invest in the SAA's future. If we don't raise at least \$45,000 in new gifts, we lose the matching gifts as well.

The campaign to "Give the SAA a Gift on its 75th" will end at the upcoming 2010 annual meeting. **Double the impact of your giving and help insure we receive these matching gifts by making your our generous donation today!**

How to Give

Make your donation on your renewal form, or donate on-line at www.saa.org. A multi-year pledge is also an option.

Now more than ever, every gift will make a difference for the SAA and for American archaeology in the 75 years to come!

Contact Tobi Brimsek at 202-789-8200 with any questions.

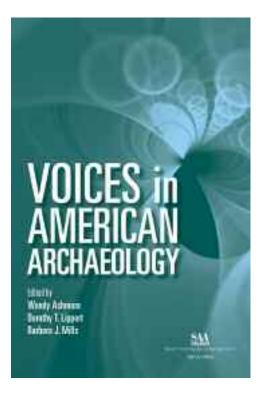




SOCIETY FOR AMERICAN ARCHAEOLOGY 990 Second Street NE #12 Washington DC 20092 USA

Non-profit Org.
U.S. Postage
PAID
St. Joseph, MI
Permit 38

 The paper used in this publication meets the requirements of ANSI/NISO Z39.48-1992 (Permanence of Paper).
 Printed on recycled paper.



Coming Soon!

Voices in American Archaeology

Edited by Wendy Ashmore, Dorothy Lippert, and Barbara J. Mills