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The Magazine of the Society for American Archaeology

VOLUME 12, No. 4

SEPTEMBER 2012

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EDITOR'S CORNER

Jane Eva Baxter

I realize that volume numbers for *The SAA Archaeological Record* correspond to the calendar year, but in many ways my editorial cycle begins in September and runs through May, with summer being a time to cultivate new materials, work with authors I've met through the previous SAA meeting, and plan out the issues in a way that makes my editorship work while in the throes of an academic year. It's hard to believe that this cycle is to be my last, and that I have only five more issues to produce as Editor. I can say that there are some really interesting articles and forums ahead, but I also can say there is still plenty of room for authors who would like to publish something in the near future. Please contact me if you have ideas for submissions, as I'd be happy to work with you. I am also seeking authors who are using social media to share their archaeological work with others. Do you blog while in the field? Do you have a Facebook group or a tumblr where you disseminate information to interested friends or followers? Do you tweet about archaeology? If so, and if you think these are topics you'd be able to write about, please let me know as they are aspects of contemporary archaeology I'd like to see presented in upcoming issues.

I also have taken on a couple of extra projects as Editor that I wanted to share with you. The first was the development of a set of guidelines specifically for authors publishing in *The SAA Archaeological Record*. These guidelines are the first ever for the magazine, and address many recurring concerns of authors. The guidelines will be available on the SAA website by the time this issue comes to print, and they will be published in the November issue of the magazine. I want to thank the Publications Committee for their input and suggestions in the development of the guidelines, and their ultimate approval of the document. Second, I have embarked on a project to index the first twelve years of *The SAA Archaeological Record*. The index will include a listing of special forums, an author index, and a subject index. As the increasing use of electronic sources in teaching and research leads people to favor publications with accessible indices, this project ultimately will become a part of the SAA website and a useful tool for those wishing to look at articles from *The SAA Archaeological Record*, particularly in a historical or longitudinal fashion. This project should be completed by the end of my term in May, so look for more information in upcoming issues.

This issue of the magazine is filled with a diverse array of really interesting articles. I am particularly excited to have gotten Judy Wolf to write an article about those Wyoming Archaeology Awareness posters that seem to be our favorites year after year. For those of you who I've heard wondering out loud how she does it- it's here in *The SAA Archaeological Record*. Finally, Kisha Supernant is to be commended for her work as special editor, and for bringing together such an exciting forum on behalf of the SAA Committee on Native American Relations. Looking at collaborations occurring around the world and in areas where collaborations are not mandated by any type of legislation provides many exciting and novel approaches regarding longstanding disciplinary interests of public archaeology, collaborative archaeology, and community-based archaeology. I am pleased to have helped facilitate for the membership another forum sponsored by one of the many committees who work so hard on behalf of our organization.



FROM THE PRESIDENT

Fred Limp

Fred Limp is the President of the Society for American Archaeology.

Dear Colleagues:

It has been a busy summer—and be sure to respond to the fall call for committee membership. The last few months have been active ones for the Society. There was a time not so long ago when summer was fairly quiet, with most members in the field. That has changed! I'd like to update you on some of the more important activities.

Over the last few months we have joined with many other societies and organizations to work with the National Geographic Society to develop guidelines for metal detecting shows. The minutes of the National Geographic Society and National Geographic Channel Meeting on Archeological Preservation, Avocational Metal Detecting, Ethics of Archeology meeting, along with a letter from me to the SAA membership are posted on SAA web (www.saa.org), describing the outcome of the process. Also this summer task forces have been working closely with the publications committee to identify candidates for the editorship of *The SAA Archaeological Record (TSAR)*. A second task force and the Publications Committee have also been working over the summer to identify candidates for editor of the new journal. In the fall meeting the Board will be making their selections from the candidate lists.

While on the topic of journals, I want to remind you that the last two years of both *American Antiquity* and *Latin American Antiquity* are now online and you can access them through the SAA website. As each new issue comes out we will be sending an e-mail blast to member subscribers alerting them to the new content. The Publications Committee and the editors are also working hard on guidelines for new supplemental materials. These are materials that can be added to the journal website—things such as color photographs, databases, videos, and others. We hope to have recommended guidelines for the Board's review in the fall meeting.

This summer has also seen the first use of the new electronic submission system. By the time this issue of *TSAR* is out submissions will be closed—but so far members have been pleased



with the new system, and the fact that we now have a 200-word abstract limit provides authors with a much better opportunity to describe their papers.

There have been a growing number of requests for assistance from international sources. As a result we have set up a new committee: The International Government Affairs Committee—IGAC—under the able leadership of Dan Sandweiss. IGAC will be developing its membership and a network of advisors over the next months.

The SAA, in conjunction with ACRA, SRI Foundation, National Trust for Historic Preservation, Cultural Heritage Partners, and Cultural Resource Analysts, Inc., is working on a 3-part strategy for integrating historic preservation compliance in shale gas exploration, development, and operation. The initiative is focused on private property where currently there are limited or no historic preservation compliance requirements. The 3-part strategy involves compiling data to demonstrate the magnitude of cultural resources at risk, engaging industry through candid discussions with private companies which are voluntarily complying to develop a comprehensive framework, and working with legislators and regulators to accept the historic preservation-industry compliance framework.

Finally—please consider responding to the November “Call for Committee Service.” We are now in our third year of this new approach to committee formulation. Each year, through the call, members are invited to submit a statement of interest. The board liaison to the committee and the committee chair use these statements of interest to select new members for the committee. In our last member needs assessment nearly 1/3 of the members said they wanted to serve on a committee, and we can have more statements of interest than we do open positions each year for a particular committee. If you are not selected one year please resubmit your statement the next. Remember that committee members may only serve a maximum of 2 two-year terms. So each year there are new openings on committees. The Society is a volunteer organization and its strength is based on the extraordinary interest and commitment by our membership.



IN BRIEF

Tobi A. Brimsek

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

Meetings, Meetings, A Few Questions

In the Memphis meeting evaluations, two general questions/comments were raised. Since these questions do get asked periodically, each is addressed below.

Why does SAA not include coffee breaks at the Annual Meeting?

This question has been asked from time to time over the past years. The simple reason is cost. Unbelievably, the cost for coffee service from a hotel or convention center would be in the neighborhood of \$14,000–\$18,000! And that is for one coffee break—not even for a full day. In addition to the cost of the coffee, there are service charges (generally in the arena of 21–24 percent) and local taxes on the coffee and service.

Why is SAA not going back to New Orleans?

SAA would very much like to bring the annual meeting back to New Orleans. We have been trying to do so for a number of years. Our most recent attempt is actually coming full circle now. The simple answer is that New Orleans is a very desirable destination, and our annual meeting does not meet the spending guidelines that the hotels seek for meeting contracts. In addition, our meeting dates are during the peak meeting season in New Orleans. It is this mismatch, combined with the high demand for New Orleans that is preventing us from getting there. There are numerous options and hotel packages. We have recently been unsuccessful with all of them. What is the solution? We will keep trying, knowing that this is what our membership would like to see.

78th Annual Meeting, April 3–7, 2013, Honolulu, HI

Childcare Is Back!

As was decided by the Board of Directors, childcare will be available at the next three annual meetings (Honolulu 2013, Austin 2014, San Francisco 2015). After the third year, the Board will revisit the issue again. The same company that provided the care in St. Louis will be handling it for the next three years. Reg-

istration for “Camp SAA” is available from the link on the front page of SAAweb (www.saa.org). Care is available in four hour consecutive minimums. The fees per hour and registration are handled directly by the childcare company. Should you have any questions about the childcare program, please direct them to SAA’s Executive Director, Tobi Brimsek (tobi_brimsek@saa.org or 1-202-559-4580).

Hotel Information and Logistics

The meeting will take place at the Hawaii Convention Center, and the Hilton Hawaiian Village, which is the headquarters hotel. The convention center is about a 12–14 minute walk from the Hilton Hawaiian Village. There are three additional hotels exclusively for students (see below). The link to Hilton Hawaiian Village reservations is on the front page of SAAweb (www.saa.org). Please click on “Hotel Information.” The rate at the Hilton Hawaiian Village is \$209. Government-rate rooms are currently sold out.

Special Note

The Hilton Hawaiian Village has extended the SAA rate for one week before and one week after the meeting, knowing that some attendees may want a bit more time in Honolulu.

Housing Exclusively For Students

For the students, there are three designated student hotels, the Ramada Plaza Waikiki (\$119), the Aqua Palms Waikiki (\$119), and the Ambassador (\$85). No extended rates have been offered at these properties. The reservations information for these properties is also on the “Hotel Information” page of SAAweb.

A Free One Year Membership in SAA

All you need to do for a chance at a free one year membership in SAA is to register at the Hilton Hawaiian Village, the Ambassador, the Aqua Palms Waikiki, or the Ramada Plaza Waikiki by

➞ *IN BRIEF, continued on page 9*



HONOLULU IN 2013!

Kathy Kawelu and James Bayman

Kathy Kawelu (University of Hawai'i–Hilo) & James Bayman (University of Hawai'i–Mānoa) are the local advisory chairs for the 78th Annual Meeting.

Aloha mai kākou! We're thrilled to host the Society for American Archaeology's annual meeting in Honolulu this coming year. For the first time in the Society's history, Hawai'i serves as the conference destination. We hope the unique island people, cultures, history, and environment will make this a memorable experience. Your first glimpse of Hawai'i will be of the mountains that poke through the sea of clouds, when you set foot on our shores the humidity will embrace you, and you'll hear 'ōlelo Hawai'i (Hawaiian language) peppered in the local pidgin and spoken by kanaka maoli (Native Hawaiians), who perpetuate our culture. Northeasterly trade winds cool you as you make your way to the Hawai'i Convention Center and Waikīkī, storied home of chiefs and fertile irrigated taro field-systems. In Waikīkī you can swim at one of the many beaches along the coast, hike to the top of iconic Mount Leahi (Diamond Head), or shop to your heart's content at Ala Moana Center, the nation's largest outdoor shopping center.

If you want to get away from the bustle of Waikīkī, and we suggest you do, take advantage of one of the scheduled fieldtrips. Tucked away in Mānoa Valley is the University of Hawai'i Lyon Arboretum and Botanical Garden, here you'll get a guided ethnobotanical tour of nearly 200 acres of tropical rainforest. The Lyon has more than 5,000 tropical plant species, an active pre-contact irrigation field-system, and a reconstructed traditional thatched house.

Learn about Hawaiian history and royalty at Kaniakapupu, the summer residence of Kauikeaouli, Kamehameha III. Experience the living culture while you give back to the local community, through service work with Aha Hui Mālama O Kaniakapupu, a nonprofit organization that has cared for this National Register of Historic Places site for many years.

Along with the Lyon Arboretum trip, the Fiber Perishables Interest Group has organized a behind-the-scenes tour of the ethnographic and archaeological collections at the Bernice Pauahi Bishop Museum. Founded with the collections of three

chiefesses, the Bishop Museum is one of the foremost research institutions in the Pacific, housing the most comprehensive Hawaiian collection. With the vast majority of Hawaiian material culture constructed of perishable materials, and the damaging effects of our tropical climate, the collections in the Bishop Museum are invaluable.

Another interest group, the Military Archaeological Resources Stewardship group, which in part seeks to increase collaboration between Department of Defense archaeologists and stakeholders, has coordinated a tour of Makua Valley. The tour, jointly led by U.S. Army archaeologists and local community members, provides a unique opportunity to access this culturally significant valley and discuss the challenges of balancing the needs of descendant communities, historic preservation, and military use.

For our last tour, the researchers at the Central Identification Laboratory, the largest forensic skeletal laboratory in the world and part of the team responsible for the recovery, identification, and repatriation of Americans missing from past conflicts, have offered to give our members a tour. The tour provides an overview of the facilities and basic forensic analyses done, including artifactual evidence, as well as a tour of a mock excavation and discussion of the various team positions.

Finally, an event which promises to be a good time is the Saturday night lū'au. Set on the beautiful grounds of the Bishop Museum in Kalihi Valley, we've steered you away from the flashy productions, to a truly local-style party. Eat 'ono (tasty) Hawaiian food, hear good Hawaiian music, and see hula up close and personal. The newly renovated Hawaiian Hall will also be made available during the lū'au, so when you're finished filling your stomach you can feed your mind as well. Three floors present a snapshot of Hawaiian culture, from the realm of gods through the key moments of Hawaiian history and monarchical rule. Pick up popular and academic publications, and locally made crafts at the gift shop, a good peace offering for those left back home. We look forward to seeing you in 2013.



CREATING A SUCCESSFUL ARCHAEOLOGY MONTH POSTER

Judy K. Wolf

Judy Wolf is Chief of Planning and Historic Context Development for the Wyoming State Historic Preservation Office and is the State Coordinator for Wyoming Archaeology Awareness Month. She may be reached at jkwolf@uwyo.edu.

September 2012 will mark the 20th anniversary of archaeology awareness promotion in Wyoming. From its inception in 1992 as a weeklong celebration, the observance has grown to an entire month of special public events, exhibits, and demonstrations in communities across the state. The State Historic Preservation Office serves as the primary sponsor. By 1996, the program was already very popular with the public when the state coordinator (Mary Hopkins) stepped down and I volunteered to take on the position. As this is not a fully funded state program in Wyoming, this was in addition to my primary job duties in the State Historic Preservation Office at that time—managing the Review and Compliance program (not exactly a part time job!). I did not really know what I was getting into or how much work it would be, but it has become one of the most rewarding aspects of my job.

The centerpiece of Wyoming Archaeology Awareness Month (WAAM) is the poster I produce every year. In the beginning, I did not really know what I was doing, so I first took a hard look at the posters we had received from other states around the country. New Mexico's really stood out (this poster later won first place in the SAA's State Archaeology Week Poster Contest) (Figure 1). To me, this poster was classy. It featured a beautiful photograph that drew me in and made me want to know more about the site, the design was clean and uncluttered, and it was printed on heavy weight, good quality paper; this poster was clearly something to keep and treasure. Included with the poster was a message from Lynne Sebastian, who was then New Mexico's Deputy State Historic Preservation Officer and State Archaeologist. I don't remember Lynne's exact words in that message, but it had something to do with being proud to share a poster that was a work of art suitable for framing. This became for me the key principle in creating a successful

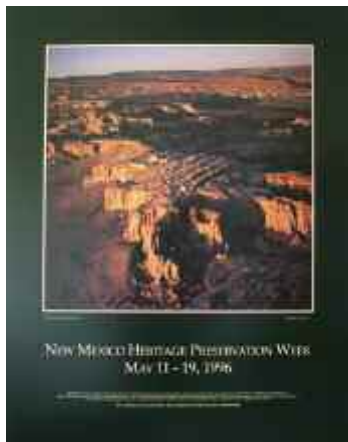


Figure 1. New Mexico's 1996 first place award-winning poster.

archaeology poster. I strive each year to produce a poster that not only has a strong archaeological connection but is also a work of art that people would want to display, not just for a few weeks, but for years. Our posters hang in the governor's office and in the Washington offices of each member of our congressional delegation (all three of them!), and we design our posters with that fact in mind: is the poster something that a member of congress or our governor would want hanging in his or her office as a message of what Wyoming archaeology is all about?

Inspiration for our posters has come from many different sources. Sometimes it begins with a desire to commemorate an important historical event such as the 150th anniversary of the Homestead Act (the 2012 poster). I once produced a poster to coincide with the publication of a book on an important Wyoming site.

At other times, inspiration has come from an image I remembered seeing in the Wyoming State Archives collections, or something I saw in an art gallery, in a museum display, in a magazine, on a website, or heard in an archaeological lecture. Finding the right image is critical and sometimes challenging. The prehistoric archaeology of Wyoming is comprised entirely of the material remains of nomadic hunting and gathering cultures—they don't leave much behind. While we have many remarkable sites in the state we do not have sites with impressive architectural remains, and a scatter of waste flakes is not especially photogenic. The ephemeral nature of most of our sites often requires creative thinking on how to portray the archaeological signature in a photograph. I have found to my dismay that sometimes it cannot be done. But, Wyoming does have stunning landscapes and I've tried to use that strength to good effect in many of our posters. Depicting the setting of the featured site helps people to understand it better and clearly ties the image to Wyoming.

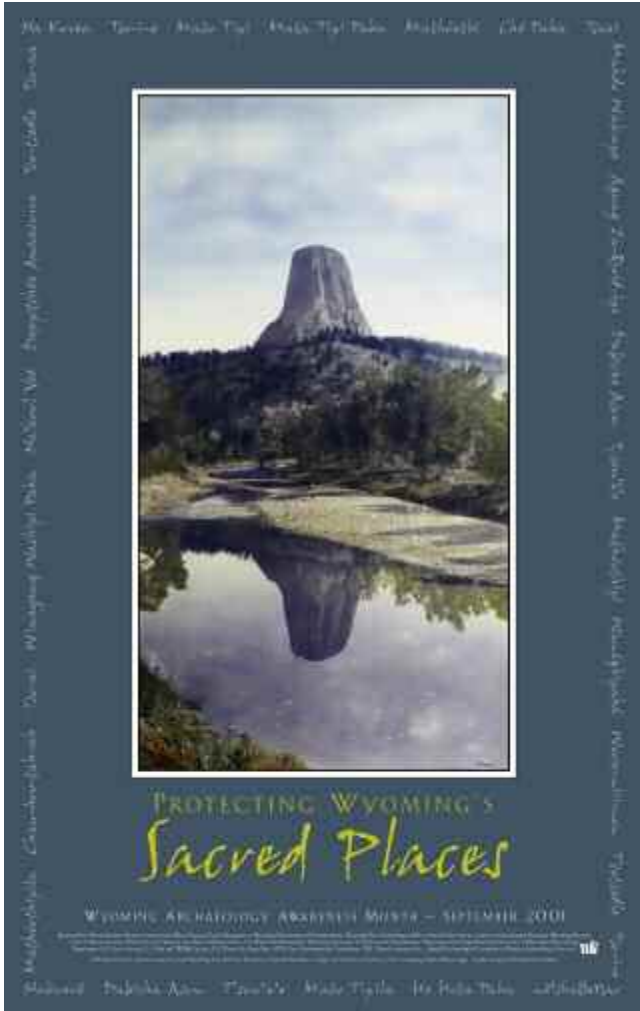


Figure 3. *Protecting Wyoming's Sacred Places* poster won first place in the 2002 State Archaeology Week Poster Contest.



Figure 4. Wyoming SHPO staff modeling 2012 Archaeology Wear. From left, Shane McCreary, Steven Sutter, Laura Holthus, Ragan Driver, Christina Servetnick, and Shannon Hopkins.

professional photographer on staff (Richard Collier) and I often work with him to create a poster image with a particular look and feeling. I have also had the good fortune to work with the same professional graphic design artist (Elizabeth Rahel) on every poster we have produced. She loves the challenge of working on this project and we share a desire to come up with a new way of showcasing Wyoming archaeology every year. These two individuals have been key to the production of a quality poster.

All of the posters require some level of consultation, often, obviously, with Native American tribes. For example, the 2001 Devil's Tower-Sacred Places poster required two years of consultation with 24 tribes (Figure 3).

The WAAM budget averages around \$10,000 each year, but we receive no state appropriation to cover this cost. Instead, our posters are sponsored and financed through generous donations from federal and state agencies, archaeological consulting firms, and professional and avocational organizations. We also underwrite the cost by producing and selling Wyoming Archaeology t-shirts and caps each year (<http://wyoshpo.state.wy.us/pdf/Archaeologyt-shirtorderform2012.pdf>) (Figure 4). As a result, 6,000 posters and brochures are produced each year and are available free of charge. Wyoming Archaeological Society members help distribute the posters to schools, libraries, museums, courthouses, chambers of commerce, and tourism centers across the state. In addition to a financial contribution to produce the poster and brochure, the Bureau of Land Management also assists with the mailing of hundreds of posters across the state and nation. Posters are available in the State Historic Preservation Office, the State Archaeologist's Office, the University of Wyoming's Department of Anthropology, and in the offices of various federal agencies across the state.

Wyoming has been honored with numerous awards in the State Archaeology Week Poster Contest created by the SAA's Public Education Committee and now sponsored and run by the Council of Affiliated Societies. I am grateful for the acknowledgment of the hard work that goes into creating our posters (Figure 5). The awards have created publicity throughout the state with articles published in local newspapers. This has allowed us to reach sectors of the public that may not have heard about the state archaeology awareness program before. The awards have also helped with fund-raising: some consulting firms have



Figure 5. Judy Wolf by one of Wyoming's posters. All of the posters and awards are on display in a gallery in the University of Wyoming's Department of Anthropology.

approached me offering to be a sponsor. The recognition by the SAA has made me work harder to maintain the quality of each poster we produce and it has inspired our photographer, graphic designer, and the printing firms we hire to do their best work.

Perhaps the greatest reward of all is the fact that interest and demand for our posters seems to grow every year, and not just in the state of Wyoming. In just the past few weeks I have filled requests for posters from the states of Iowa, Kansas, Arizona, Washington, and Oregon. I have also recently received requests for the full series of posters from a law firm, an environmental consulting firm, a nursing home, the University of Wyoming library, and of all places the state's new medium security prison. The intent with each request was to frame and display the posters in a public space.

Obviously, it's not easy to produce award-winning posters year after year. Doing so requires working with a team of qualified and dedicated photographers, designers, and archaeologists. It means preparing for upcoming opportunities (such as the anniversary of the Homestead Act or the Antiquities Act). And with fund-raising and consultation, it's a year-round job. But the benefits in terms of public recognition of the importance of archaeology can pay off enormously.

IN BRIEF, from page 4

January 15, 2013, and your name will be entered into a drawing for the one year membership. There will be a drawing at the headquarters hotel and each of the three student properties.

Discount Airfare Options

SAA has arranged discounts for SAA attendees flying to Honolulu on two different airlines—American Airlines (10 percent) and Alaska Air (7 percent). Check out these discounts by clicking on “Airline Discounts” on the front page of SAAweb.

Coming in November— Open Call for Service on Committees

This November marks the third year in which SAA has made the process for volunteering for committee service an open one. In early November 2013 SAA will put out (via email) an open call to the membership to solicit volunteers interested in serving. Open committee slots will be posted and filled through this call. Appointments will be made for slots available as of the close of the Annual Business Meeting in Honolulu. Committee appointments are generally for two years.

Last years, as in the previous year, for some committees there were more volunteers than there were open slots. Please be aware that the Society is extremely grateful for the high level of volunteerism and commitment among SAA members. It is regretful that there generally are fewer slots than volunteers. If you were not selected, please try again.

Also please be aware that the requested statement is the way in which you will introduce yourself to the committee and share what you can bring to that committee. The statement is a key factor in the decision-making process.

And a note to the students—most SAA committees are structured to have two slots specifically for students. This is a wonderful way for students to become more active within the Society.

All of the committee charges and memberships are listed on SAAweb. We encourage you to check them out and think about getting involved!

Staff Transitions

Alyssa Barnett joined the SAA staff team in July 2012, replacing Lorenzo Cabrera as coordinator, Membership and Marketing. Many of you will be chatting or emailing with Alyssa, as this is a key liaison role to the membership.



THE SAA ARCHAEOLOGY WEEK/MONTH POSTER CONTEST

Cathy Poetschat

Cathy Poetschat is the Chair of the Council of Affiliated Societies.

Although you probably know that most states and provinces have an annual poster as part of their archaeology week or month, did you know that there is a contest for the best of those posters at the SAA Annual Meetings? And, have you voted for your favorite poster in the SAA Exhibit Hall? It's fun deciding which poster to vote for! A ballot is included in each conference registration packet and participants can make their choice and deposit their ballot in the ballot box by the poster display in the main exhibits hall. Awards for the top three choices are presented at the SAA Business Meeting and photos of all the years winning posters are available on the SAA website.

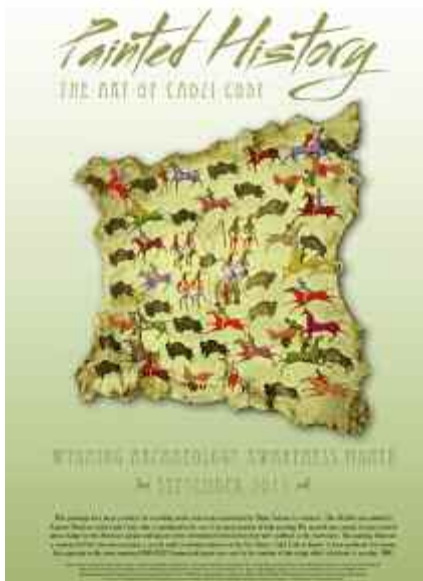
The Public Education Committee organized the first poster contest at the 1996 SAA Meeting, and the contest has been held every year since then. Currently, the Council of Affiliated Soci-

eties (CoAS) runs the event, whose booth is near the poster contest. The CoAS booth can provide you with even more information about state and provincial archaeology societies. CoAS is looking for societies to join us! Contact me at poetschat@msn.com to discover the benefits and how to make your society a CoAS member.

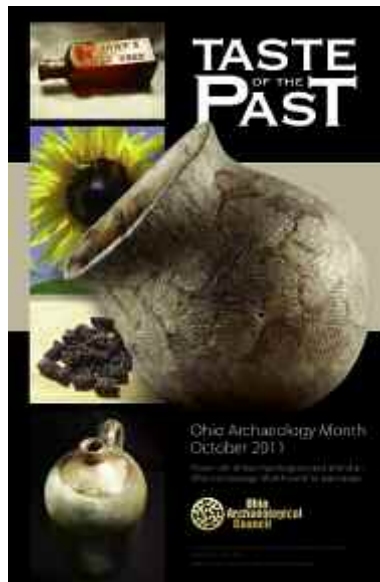
You can make sure your state's or province's poster is entered into the contest to be seen by SAA Meeting participants and perhaps get chosen to win an award. To see how, go to the SAA Website, click on About the Society, click on Awards, and then State Archaeology Week Poster Award. If you have any questions, contact Maureen Malloy at Maureen_Malloy@saa.org.

Below are photos of posters that won at the 2012 SAA Annual Meeting in Memphis.

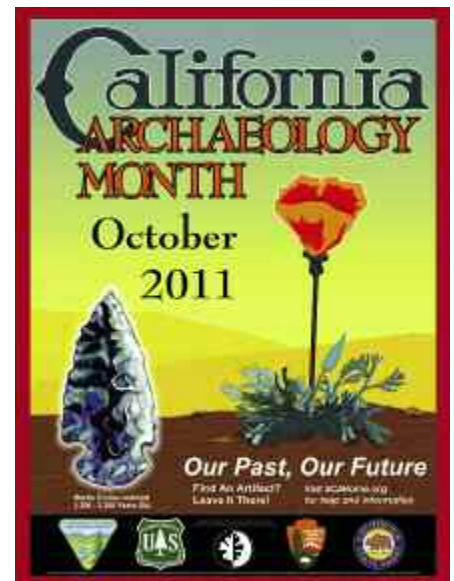
1. Wyoming



2. Ohio



3. California





WHAT I LEARNED FROM MY EXPERIENCE AS EDITOR OF *AMERICAN ANTIQUITY* (2009–2012)

Alison E. Rautman

Alison Rautman is a faculty member in the Center for Integrative Studies at Michigan State University and was the Editor of American Antiquity from 2009–2012.

My three-year term as Editor of *American Antiquity* ended at the SAA meetings in Memphis in April 2012. During the meetings, many people asked what it was like to be Editor. People didn't ask about the statistics of the journal; rather, they were more curious about what I learned about writing, being a reviewer, dealing with reviews, and publishing, as well as what I learned about my colleagues. I realized that other members of the SAA also might be interested in these questions, and I have tried to answer them here briefly.

What I learned about academic writing and re-writing

I found that the single-most common problem that authors have involves connecting theory and data. As an author, one must present some general expectations for the results of one's research, whether these expectations come from ethnography, game theory, evolutionary ecology, or anyplace else. One must tell the reader what those general expectations are. One must then articulate how archaeological expectations were generated, or in some other way explicitly make the link between the ideas and the information being presented. One does not have to frame these expectations as formal hypotheses, nor does one have to test all conceivable explanations or scenarios (one can't), but one does have to provide clear, logical connections between theory, method, and data.

Some people may say that scientific writing is linear, with the conclusions revealed at the end in a grand finale. That is NOT the way that reviewers see it. Reviewers seem to appreciate an introduction that provides an overview of the ideas and theoretical framework that the author will be using, the ideas the author will be testing, and (importantly) a preview of the results. Reviewers expect to see these same concepts repeated (with greater elaboration) as they read the manuscript. The introduction is also the place where authors should set out the parameters of the study, that is, what they hope to accomplish, and what they do NOT plan to address. These parameters give the reviewer and future readers a more accurate sense of what information is forthcoming, and what information is not going to be presented.

Reviewers do NOT appreciate seeing new data or ideas presented in the "Discussion" or "Conclusions." In fact, it might be best if an author imagines his or her "Discussion" section to be titled "Evaluation" instead. In this section, reviewers expect the author to step back and provide an evaluative voice. Reviewers expect to see a discussion of how the research results were consistent with, or diverged from, the author's original expectations. Reviewers expect to find some generalizing statements ("what did we learn") and also some forward-looking statements ("suggestions for future research"). The author might reiterate some important or unexpected results that were noted previously, but the "new" information here is the evaluation of those results, not the results themselves.

Reviewers seem to appreciate a fairly short conclusion, which re-caps concepts from the "Introduction," but without adding anything new and surprising. In fact, the most common revision that I recommend to authors involved "front-loading" text from the "Discussion" or "Conclusion" (where the author originally placed it) into the "Introduction" or "Background" (where the reviewer expected to find it).

What I learned about the process of journal publication

All of these strategies for composition help make a good, or even great article, but they do not guarantee an article's acceptance. One of the continuing goals for the journal is reducing the time lag from acceptance to publication. Manuscripts are therefore evaluated not only according to abstract standards of excellence through the peer review process, but also then against one another for page space. Sometimes, that means that an otherwise excellent manuscript will be rejected—and that is a very difficult decision indeed.

I was surprised that the physical nature of page space affects other aspects of publication. For example, the typeset manuscripts can get shuffled around to make efficient use of pages within an issue of the journal. One minor but practical function of short pieces such as book reviews and advertisements is to

provide some flexibility in this use of page space. My copy-editor and I also found that we needed to have about three “extra” manuscripts of different lengths ready to swap into production at a moment’s notice if one of the planned manuscripts did not fit. Authors might therefore be sent proofs sooner than they expected; alternatively, an author’s manuscript might be delayed in publication. The physical nature of the journal therefore makes it impossible to guarantee that a certain manuscript will appear in a specific issue.

What I learned about being a reviewer

The most helpful reviews provide enough detail to demonstrate clearly that the reviewer actually read the manuscript. A single sentence review saying, “This is great!” is not helpful. A good review will summarize what the reader interpreted to be the main point and the logic involved, and will state an honest assessment of the manuscript’s potential.

If you are reviewing a manuscript, you may not know exactly what is wrong with the manuscript, or be able to articulate exactly why you felt dissatisfied with it. In this case, if you are able to describe your confusion or your frustration more specifically, that information (together with the other reviews) will help the editor figure out where the author should focus his/her attention for revision.

It is also appropriate to note the limits of one’s expertise. One might say explicitly (for example), “I reviewed this manuscript as a specialist in evolutionary theory and faunal analysis.” Likely, the editor has another reviewer who will cover other relevant specialties such as the geographic area or methodology.

I hope that people will consider registering on the Editorial Manager website as a prospective reviewer (<http://www.editorialmanager.com/aq/>). It is interesting to see how other people construct an argument, and your service may count as a “minor professional accomplishment” on your employee annual review. There is also great personal satisfaction in seeing an article in print knowing that you helped it along the way. Editorial Manager will ask you to list your geographic area of specialization, and some topics that you would use to characterize your areas of expertise.

What I learned about interpreting the reviews of a manuscript

As an author, there are some specific strategies for dealing with reviewer comments. An author can acknowledge the issue and move on (the traditional phrase is “beyond the scope of this research”). If the reviewer has misinterpreted something, an author might re-package or re-phrase it so others don’t make the

same mistake. In many cases, I have found it is helpful to use a contrasting statement to make one’s meaning clear (as in, “I do *not* mean to imply that....”). I’ve included examples of this strategy in this essay.

Often a couple sentences will go a long way in providing “road signs” to keep readers on track. Sometimes this strategy is as simple as moving the location of some information, using sub-headings, or giving the reader a brief “head’s up” that indeed, you will consider that important information later. Remember that background, facts, and logical connections that are painfully obvious to you may not be so obvious to the reader.

Often reviewers will recognize that something is wrong, but cannot articulate what to do to improve the manuscript. “Work on your theory,” is my favorite example. I found that when reviewers make such comments, they are usually referring to the organizational structure of the argument. Solving this problem of vague reviewer dissatisfaction often involves front-loading a preview of your study’s parameters and results, and making a clear connection between ideas (theory) and specific archaeological expectations.

If the reviews of a manuscript you submitted seem off base, or you truly don’t know what to do to improve the manuscript, you can contact the editor and ask if it would be appropriate to schedule a phone call to discuss your options. Yes, reviewers can be problematic. However, if you can tell that their comments are really irrelevant, unreasonable, or inappropriate, the editor can tell that also, and has probably already taken that into consideration.

What I learned about my colleagues

Many colleagues also asked about how other archaeologists behaved. Did they seek to curry favor with me? Were they irascible, discourteous, or unprofessional? In fact, I found the vast majority of authors and reviewers to be respectful, earnest, honorable, and helpful not only toward me, but also toward one another.

While of course there were some crises, some angry people, some emotional venting, and some ambiguous ethical questions, in reality, the unpleasant or difficult situations were extremely rare—perhaps one serious problem per year. My colleagues in the SAA and the RPA provided much advice and assistance on specific practical matters. For more general advice about dealing with people, I relied particularly on one book cited below (Patterson et al 2009).

On a different note, I will also encourage young scholars and graduate students to submit manuscripts to the journal. While

I didn't research the correlation between experience/academic rank and acceptance rates, I did learn that writing a clear, thoughtful, and streamlined article is not easy. Even with their greater experience, well-published senior scholars also struggle to make the logical connections clear, and to include just enough but not too much supporting detail. And, their manuscripts are not always accepted, either.

What I learned about being and becoming an editor

While the editorship is a responsible position and does take time, most of the work is fairly steady, with scattered and unpredictable short-term emergencies. Many tasks are those of coordinator, synthesizer, or shepherd, and most decisions are fairly clearly aligned with the peer review process. I had to have the support of my Chairperson and Dean, who negotiated the details of the editorship with the SAA. I had a course release (I taught one-and-one for three years) and a half-time graduate assistant. Use of Editorial Manager avoids all the paper mailings, and Internet searches help track down potential reviewers. I do admire the previous editors who wrangled stacks of manuscripts and letters.

I'm glad to be done, but I enjoyed my term as editor. There are many other SAA members who could do this job. I hope this brief reflection has demystified some of the process for both authors and reviewers, and will encourage those who might be interested in volunteering in the SAA. If you are at all interested in becoming more active in the SAA, in whatever capacity, let it be known. You don't need to wait for people to come to you.

Acknowledgments

I thank particularly my Editorial Advisory Board (Tim Kohler, Bob Kelly, and Miriam Stark), and also Deb Nichols (Chair of the SAA Publications Committee). Nicole Raslich helped with copy-editing and organizing for two years; Charlotte Cable and Marieka Brouwer helped for shorter periods. My Chair, Bob Hitchcock, and Dean Marietta Baba negotiated my support with the SAAs, and I thank them for their practical support. SAA managing editor John Neikirk did all the hard work of production. Ken Sassaman and I tried to make the transition as smooth as possible, and I wish him the very best experience in his term as editor (2012-2015).

Helpful Resources

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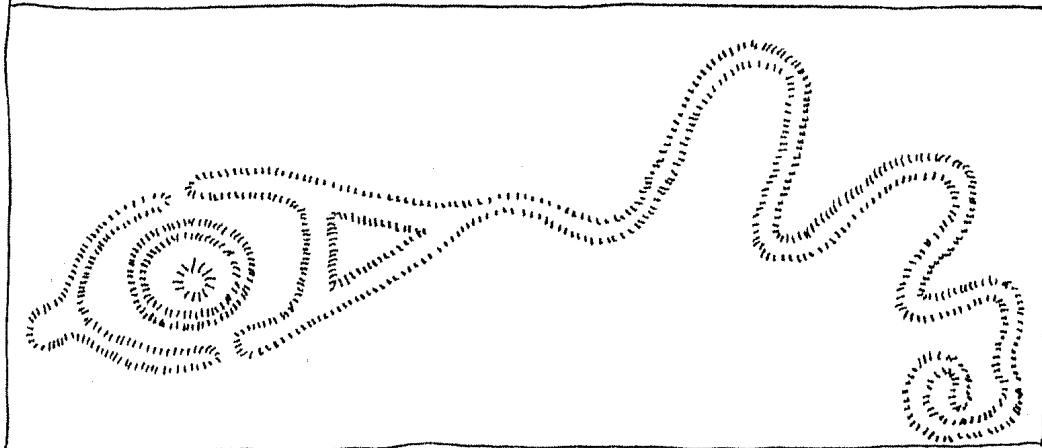
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MYTH OF THE MOUNDBUILDERS

BY TRENT DE BOER

THE ORIGIN OF THE EARTHEN MOUNDS WAS ONE OF THE GREATEST MYSTERIES OF THE NEW WORLD.



COLONISTS MOVING WEST INTO THE FRONTIER OBSERVED THE MOUNDS & WONDERED WHO HAD CONSTRUCTED THEM.



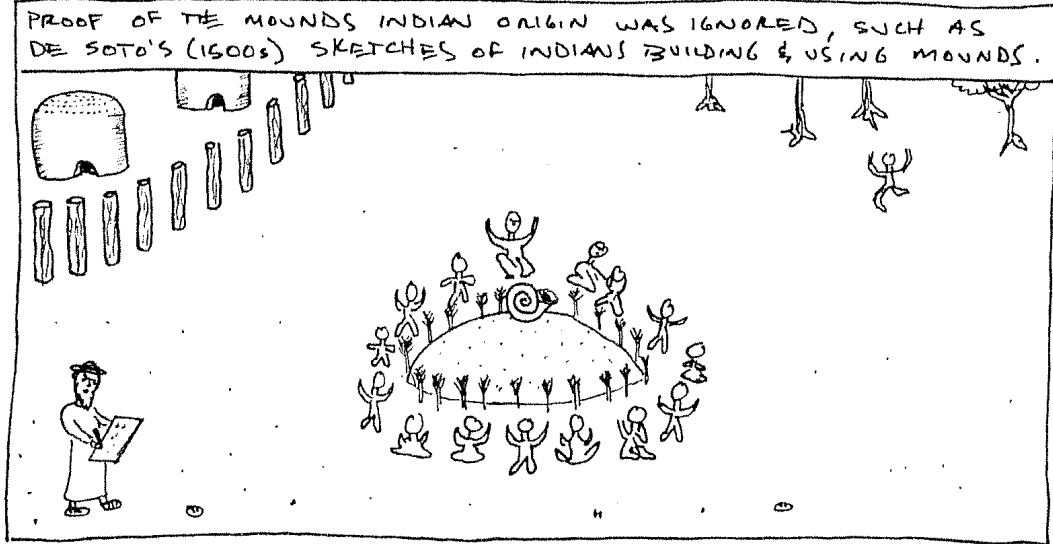
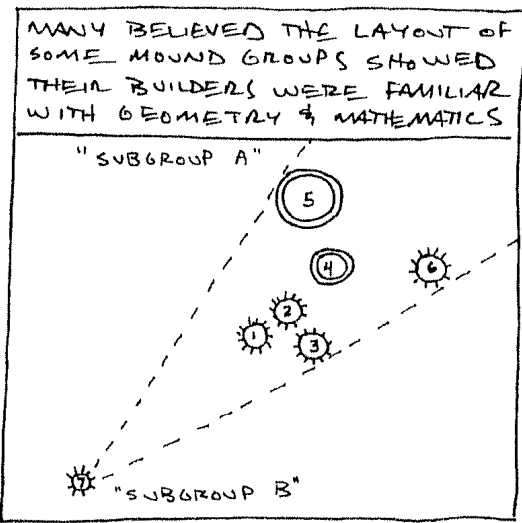
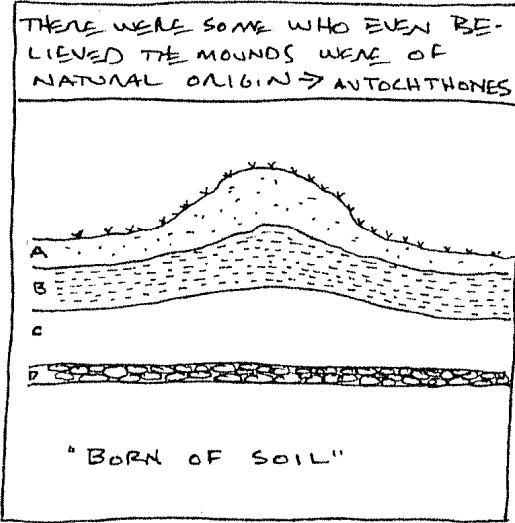
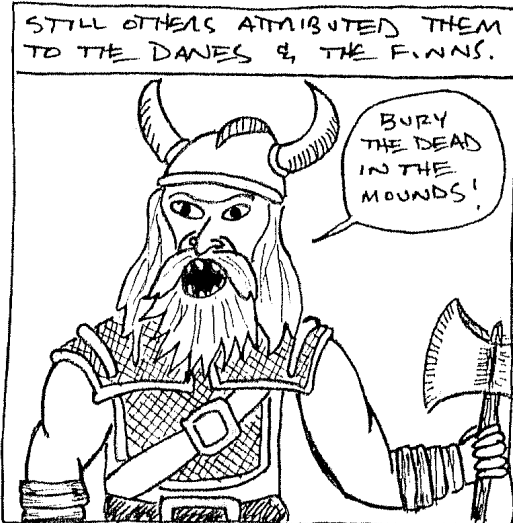
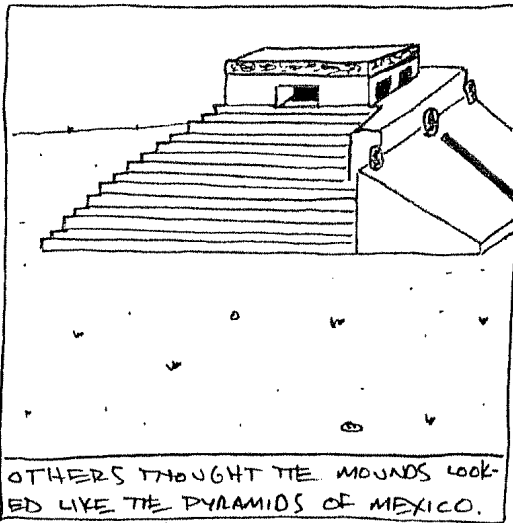
THE LOCAL INDIANS DID NOT KNOW WHO HAD BUILT THEM.

ARMCHAIR HISTORIANS LIKE BENJAMIN SMITH BARTON HAD THEORIES ABOUT THE MOUND BUILDERS

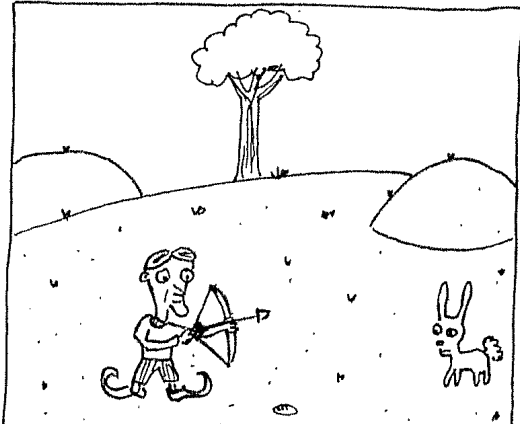


SOME PEOPLE BELIEVED THE LOST TRIBES OF ISRAEL BUILT THEM



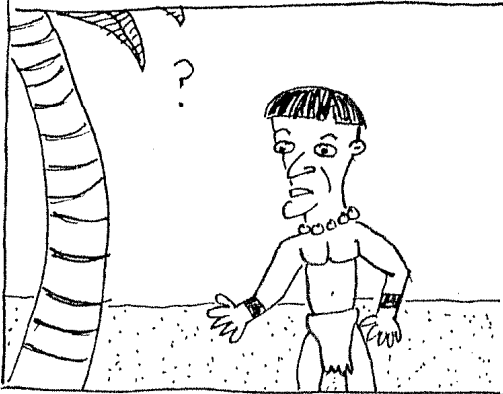


SOME SAID THE SKULLS FOUND IN MOUNDS DIFFERED FROM THE INDIANS



BABY SKELETONS FOUND IN MOUNDS WERE PROOF THAT THE MOUND BUILDERS WERE A RACE OF DWARVES.

OTHERS POINTED TO THE ALBINOS LIVING IN PANAMA AS THE DESCENDENTS OF AN ANCIENT WHITE MOUND BUILDING RACE.



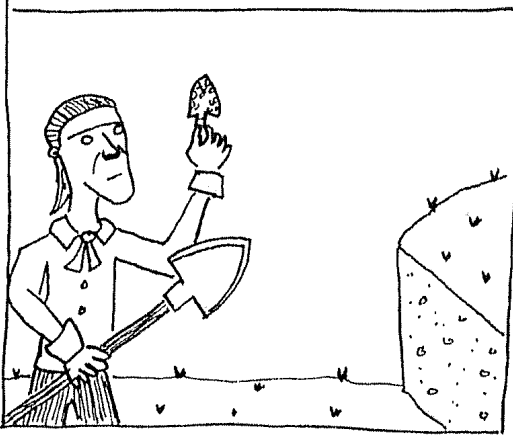
EXPLORERS & NATURALISTS LIKE WILLIAM BATMAN FED THE AM-CHAIN HISTORIANS WITH "DATA!"



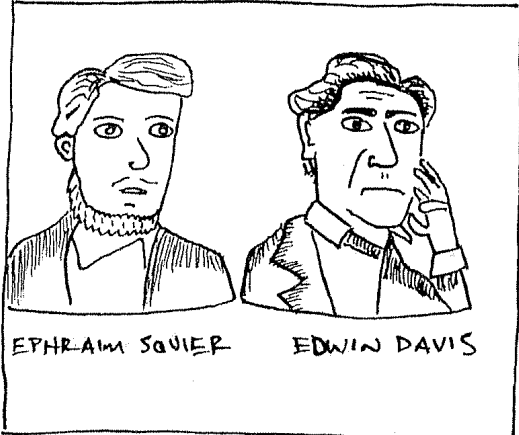
MOUND-BUILDER THEORIES WERE PICKED UP BY CELEBRITIES OF THE DAY, INCLUDING FUTURE PRESIDENT WILLIAM HENRY HARRISON, WHO BELIEVED THE MOUNDS WERE BUILT BY A LOST RACE.



THOMAS JEFFERSON TRENCHED MOUNDS ON HIS PROPERTY. HE REMAINED SILENT AS TO THEIR ORIGIN.

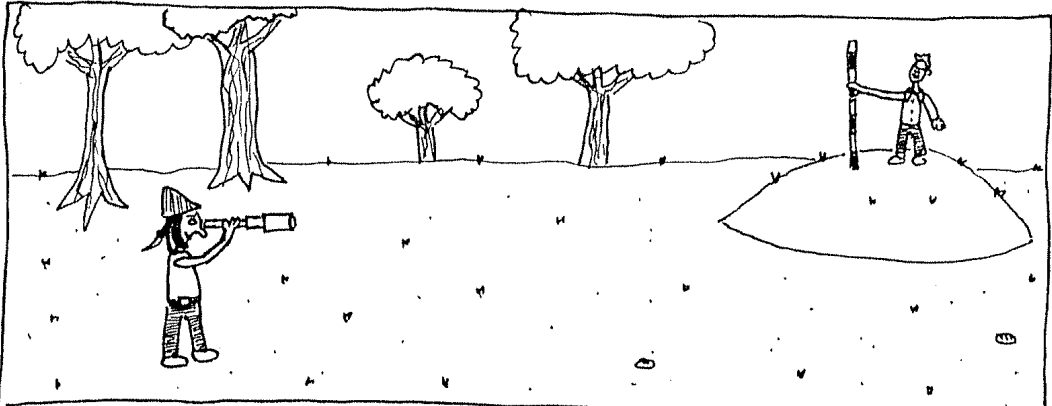


THINGS SLOWLY CHANGED BEGINNING WITH THE CONTROLLED SURVEY OF MOUND GROUPS BY SQUIER & DAVIS.



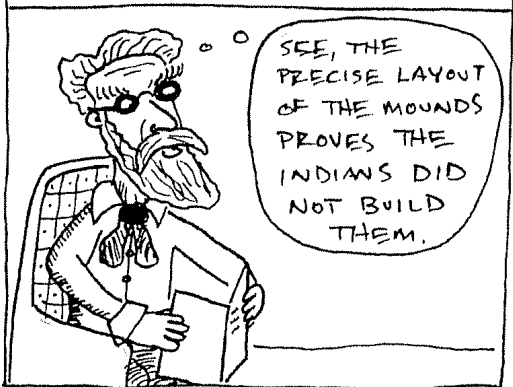
EPHRAIM SQUIER

EDWIN DAVIS



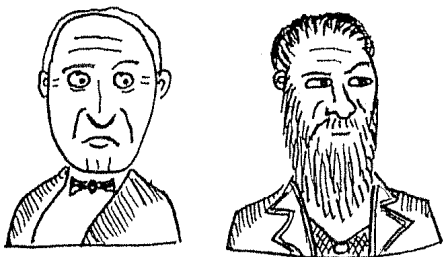
SQUIER & DAVIS SURVEYED, MAPPED, & EXCAVATED NUMEROUS MOUNDS IN THE MISSISSIPPI RIVER VALLEY (1848). STILL, THEY DID NOT BELIEVE MODERN INDIANS COULD HAVE CONSTRUCTED THEM.

SCOTTISH ARCHAEOLOGIST DR. DANIEL WILSON USED SQUIER & DAVIS' WORK TO FURTHER HIS THEORY THAT MOUND-BUILDERS WERE AN ANCIENT RACE OF PEOPLE.



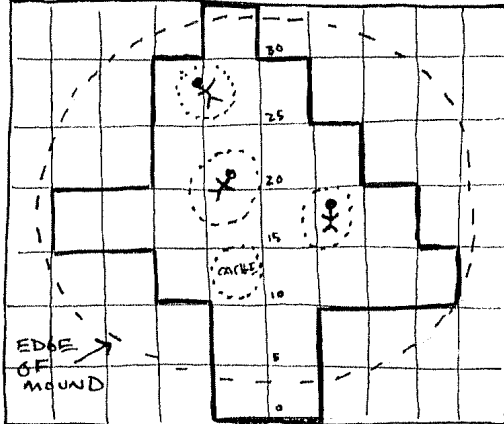
THROUGHOUT THE 1800S, AMATEUR ARCHAEOLOGISTS POTTED MOUNDS.

CYRUS THOMAS & JOHN WESLEY POWELL OF THE BUREAU OF ETHNOLOGY PUT AN END TO THE MOUND-BUILDERS THEORY.

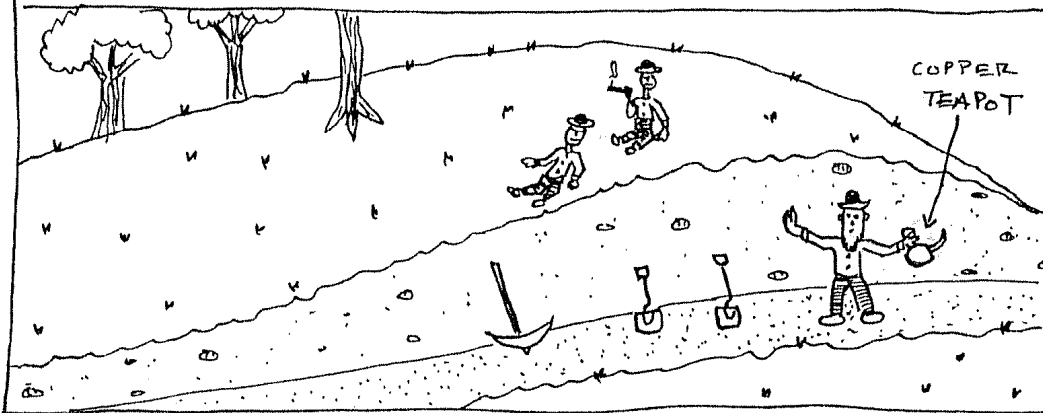


CYRUS THOMAS JOHN WESLEY POWELL

IN 1802, CYRUS THOMAS BEGAN EXTENSIVE SURVEYS & EXCAVATION OF MOUND GROUPS.



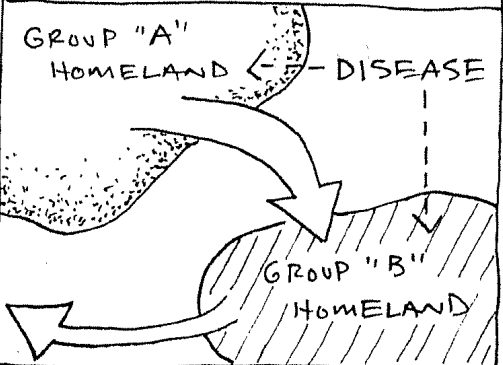
ITEMS OF EUROPEAN MANUFACTURE WERE FOUND IN SOME OF THE EXCAVATED MOUNDS, PROVING THAT MODERN INDIANS WERE STILL BUILDING & USING THE MOUNDS.



CYRUS THOMAS PUBLISHED HIS RESULTS IN 1894 BUT HE CONTINUED TO DEBATE WITH THOSE WHO REFUSED TO LET GO OF THEIR MOUND-BUILDER THEORIES



LATER, IT BECAME CLEAR THAT DISEASE EPIDEMICS HAD DECIMATED & DISPLACED THE INDIANS FROM THEIR HOMELANDS. THAT'S WHY THEY DIDN'T KNOW WHO BUILT THE MOUNDS.





ZERO WASTE ARCHAEOLOGY

E. Christian Wells and Melanie N. Coughlin

E. Christian Wells is Associate Professor of Anthropology and Deputy Director of the Patel School of Global Sustainability at the University of South Florida.

Melanie N. Coughlin is a graduate student in applied anthropology and a Sustainability Fellow at the University of South Florida.

Garbage. Trash. Midden. Waste. Junk. Litter. Detritus. Rot. Ruin. Discard. Rubbish. Call it what you like, it's all the stuff of archaeology. And, archaeologists are world famous for studying it. Even today's trash has become the subject of archaeological scrutiny. In 1973, William Rathje and his students began applying modern archaeological methods to the systematic analysis of municipal waste as a way to understand consumption patterns (Rathje and Murphy 2001). They found that *who* you are is *what* you throw away, even if you don't always admit it. While Rathje's "Garbage Project" did not aim to draw attention to the perils of a throwaway society, his work reveals that people often do not recognize how much they consume or sometimes even what they consume. And, somewhat paradoxically, archaeologists are no exception.

As we enter a new era of global grand challenges for the biosphere, it is important for archaeologists to serve as role models for responsible consumerism. After all, we should know better than others about the long-term civilizational consequences of conspicuous consumption and overreliance on nonrenewable resources (see Fisher et al. 2009). In this article, we offer a few suggestions for "greening" your archaeological investigations, with the greater goal of moving the discipline toward a "zero waste archaeology." (Don't worry—there are still plenty of ways in which our existence will be marked in the archaeological record of tomorrow!)

Ecological Impact of Archaeological Research

To begin, it is worth pointing out why archaeologists—or anyone else for that matter—should care about reducing waste. Beyond the financial benefits accrued by consuming less, which archaeologists are already quite aware of, the fundamental concept is that if the Earth's resources are depleted faster than they can be replenished, then we will end up with resource challenges that we will not be able to resolve. In sustainability parlance, it means meeting the needs of the present without compromising the ability of future generations to meet their own needs (World Commission on Environment and Development 1987).

A useful way to begin understanding the impact of archaeological research on the biosphere is to measure your "ecological footprint," or the amount of resources needed to satisfy your energy use, farm your food, transport your goods and services, and manage your waste. Thinking about the impacts of the choices you make for your research can help make you aware of the broader consequences for the planet. Ultimately, realizing the ecological impact of archaeological research is about understanding and acknowledging the various ways in which research processes and products are interlinked with local and global ecosystems (Orr 2002).

There are many online interactive simulations that you can use to measure the footprint of your research project. A useful learning-centered calculator is available from www.earthday.org, which adjusts the calculations for several different parts of the world. While the calculator asks questions about you and your household, you can respond to the questions from the perspective of your field project or laboratory. For our field school in Honduras, for example, we selected "Columbia" as the closest approximation, and then proceeded to answer the questions as though all 15 students in the program were part of our household.

What You Can Do: In the Field

Given our often meager budgets for survey and excavation, archaeologists have become experts at reducing, reusing, and recycling materials in field work (e.g., White et al. 2004:27). Over the years, however, many of us become comfortable with our own proven strategies for getting the work done. Such complacency sometimes results in an unwillingness to embrace new technologies or strategies that might otherwise help move us toward zero waste archaeology. For example, recent innovations in smart phones and handheld computing devices have greatly increased functionality and reduced startup costs to the point where it is now easier than ever to go paperless in the field (see paperlessarchaeology.com for many recent case studies). Reducing consumption of paper is important for zero waste archaeology, because paper production has tremendous costs in



Figure 1. Biodegradable flagging tape from BenMeadows.com was used by University of South Florida students to mark surface collection units and excavation loci at the 18th C. settlement of Augusta, Roatán Island, Honduras.

wood, water, energy, pollution, and solid waste. Apart from the environmental benefits of using less paper, digital data are becoming increasingly important for records curation, integration with analytical software and online applications and repositories, as well as sharing and reporting information in a timely manner (Kintigh and Altschul 2010; e.g., www.tdar.org, www.alexandriaarchive.org, sustainablearchaeology.org).

If you must use paper, consider purchasing paper with recycled content. According to U.S. EPA guidelines (www.epa.gov), recycled paper contains at least 30 percent post-consumer content. Recycled paper used to be expensive, but now pricing is highly competitive and affordable (besides, think of the unseen costs associated with using non-recycled paper, including costs for incineration, landfilling, health impacts, and so on). Of particular interest to archaeologists, many brands offer paper with “smear-resistant” properties, ideal for outdoor, humid environments. Look for chlorine free recycled paper, since the bleaching process releases dioxins and other toxins and pollutants into the environment. These chemicals have been shown to be harmful to reproductive and immune systems in humans and wildlife.

In addition to reducing paper consumption, there are other strategies you can consider to help reduce your ecological footprint. For instance, use biodegradable flagging tape (Figure 1). Made from non-toxic cellulosic material derived from wood pulp (a mix of both pre- and post-consumer waste), this tape completely degrades in up to two years, depending on environmental conditions. You can also choose recyclable aluminum canteens instead of using disposable plastic water bottles.

Roughly 50 billion disposable plastic bottles, which take up to a millennium to degrade, end up in U.S. landfills each year. When your equipment begins to wear out, instead of discarding it you can donate it. Habitat for Humanity (www.habitat.org), for example, accepts tools (including trowels!) in good working condition for use in building homes for those in need. Freecycle (www.freecycle.org) is a grassroots nonprofit network with the goal of keeping items in circulation and out of landfills. Finally, you can start including a new section in your project reporting templates that explain how you have reduced waste (and costs) for your clients or students. The Zero Waste Archaeologist even goes so far as to add a statement in her conference papers and posters about what she did to make her work zero waste.

What You Can Do: In the Laboratory

Research and conservation laboratories along with museums typically consume more energy than office settings, because of the use of analytical equipment, state and federal regulatory requirements for air quality, and heavy (and sometimes around the clock) use. There are a range of simple strategies one can pursue to reduce energy waste. For example, if you maintain a wet lab, lower the sash on your fume hood to reduce the amount of energy it requires to vent the hood. Be sure to turn off lights and computers and unplug electrical equipment at the end of the day. Many devices and appliances drain energy, even when they are turned off. According to the U.S. Energy Star program (www.energystar.gov), up to 40 percent of the electricity that home electronics use is consumed while the products are turned off. Computers, monitors, modems, microwaves, and cell phone chargers often draw 5 to 50 watts per day while in standby mode. It has been estimated that the impact from the “phantom load” of these “energy vampires” ranges from 6 to 26 percent of your electric bill. There are several novel devices on the market that allow you to monitor the kilowatt hour consumption of an electrical appliance to learn how much it costs to run in active and standby modes (e.g., ‘Kill-A-Watt’ by P3 International).

Using motion activated light sensors is a practical way to save energy in museums and other settings that experience intermittent traffic, such as storage rooms and bathrooms. Motion-sensing light switches turn the lights on in a room or a display when they detect any motion and then automatically turn the lights off after a certain period of time if there is no motion detected. Prices have come down considerably over the past few years, such that many units now run only about \$10-\$20 per unit. These settings are also ideal for energy efficient lighting, such as CFL (compact fluorescent light) and LED (light emitting diode) bulbs. One CFL bulb that produces light equivalent to a 60 watt bulb, for example, uses only 13 watts of power. An LED bulb only uses 5 watts.

In addition to electricity, there are other strategies you can pursue in lab and museum settings to reduce waste. For example, in a chemistry lab, use glass vials instead of disposable polyethylene vials for chemical extractions, and use glass instead of disposable plastic pipettes for transferring liquids. If you decide to replace plastic with glassware, be sure to use an environmentally friendly phosphate-free soap for cleaning. Many commercial soaps, especially anti-bacterial ones, contain methylisothiazolinone (an allergenic cytotoxin), triclosan and sodium lauryl sulfate (regulated pesticides and toxicants) along with a range of petroleum based derivatives that can have adverse impacts to waterways and wildlife. Finally, since the success of many waste reduction practices is behaviorally dependent, communication is essential. Creating a “zero waste protocol” for laboratory environments can be a useful way of involving lab users and gaining buy in. Strategically placed signage as reminders can help connect policy and practice.

What You Can Do: In the Office

The U.S. EPA (www.epa.gov) estimates that paper and cardboard account for almost 40 percent of our garbage. Typically, the largest source of waste in an office environment is paper. Office paper is highly recyclable, but large amounts routinely are wasted. While recycling unwanted paper is an effective strategy, waste reduction is more cost-effective than recycling, because it reduces the amount of material that needs to be collected, transported, and processed. It also means lowering your costs for mailing and storage. By using and discarding less paper, you are conserving resources, reducing water and energy, and preventing pollution. The simplest strategy is to think before you print. When printing a web page, for example, copy and paste the text into a word processor so that it is formatted correctly for printing. Printing web pages “as is” often prints material that you do not want. You can also print on both sides of the paper with most modern printers. Another easy strategy is to adjust the margins on your documents. The smaller margin of .75 inch (1.90 cm) is becoming more common. You can even consider using eco-fonts for draft copies (e.g., www.ecofont.com). Eco-fonts are TrueType fonts that contain microscopic holes in each letter, which saves as much as 20 percent on ink toner.

Another strategy to consider is electronic document collaboration, such as Google Docs (www.docs.google.com), which allows you to cooperatively edit documents, as well as track the changes made by each person. Use email rather than paper mail when you can. Use a USB drive (a “flash drive”) to transfer or share electronic documents rather than printing them. Encourage people coming to meetings to bring their reports in electronic format, and for attendees to bring electronic storage of their own (or share via an Internet-based document storage application).

In addition to controlling your paper appetite, there are other strategies for the office and classroom or conference room that you might consider. For example, buy a set of inexpensive coffee mugs to use for coffee breaks instead of using Styrofoam cups. Styrofoam (polystyrene) is a petroleum-based plastic made from styrene, which is classified as a possible human carcinogen by the U.S. EPA (www.epa.gov). Toxic chemicals, including unpolymerized styrene and benzene, can leach out of these products and into the food that they contain, especially if heated in a microwave. These products are also not biodegradable, and so amass in landfills and in waterways, threatening wildlife. After you have enjoyed your cup of coffee (in a ceramic mug), instead of throwing away the coffee grounds, apply them to your plants as a soil additive. When mixed with a bit of lime (or wood ash) or composted with microbe-rich yard waste, coffee grounds provide mild acidity as well as nitrogen, magnesium, and potassium to acid-loving plants, such as azaleas and blueberries. Finally, to create a culture of zero waste in the workplace, save a small amount of time at the end of staff meetings to share strategies, successes, and challenges for moving toward a zero waste archaeology.

Whether in the field, lab, museum, office, conference room, or classroom, there are numerous opportunities to engage zero waste archaeology. As experts on the human past, we know better than most that those who came before us were not aware of the global problems we face today, and those who come after us will lack the capacity to do anything about them. For us, there is still time.

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PRACTICAL RECORDING ISSUES AT SMALL AND LARGE SCALES IN MAYA ARCHAEOLOGY

Robert Warden and Thomas H. Guderjan

*Robert Warden is the Director, Center for Heritage Conservation, Texas A&M University (rwarden@tamu.edu).
Thomas H. Guderjan is on the faculty in the Department of Social Sciences, University of Texas at Tyler & President,
Maya Research Program (tguderjan@uttyler.edu).*

The RecorDIM initiative of the International Council on Monuments and Sites (ICOMOS), International Committee for Documentation of Cultural Heritage (CIPA), and the Getty Conservation Institute (<http://extranet.getty.edu/gci/recordim/about.html>) was an effort to overcome the gap that exists between information providers (service providers) and information users. This initiative predicted the current condition of many “information users” with respect to digital 3D data resulting from tools such as laser scanners and photogrammetry. With an ever-increasing availability of 3D digital services, users are faced with questions about how best to utilize these proven technologies for their particular needs. The Center for Heritage Conservation (CHC) at Texas A&M University works with many end-users exploring how they might best utilize digital 3D data. These users are typically small offices or agencies of Architects, Engineers, and Archaeologists that do not have resources to hire or manipulate scan data on a regular basis.

The Maya Research Program (MRP) is a nonprofit organization that explores the ancient Maya in northwestern Belize and elsewhere. MRP has a 20-year field research history that includes discovery of dozens of masonry buildings in the Maya centers of Blue Creek, Nojol Nah, Xnoha, Bedrock, Grey Fox and others (i.e., Guderjan 2007). Additionally, a large corpus of project data is available at tDAR.org. Each summer session yields large exposures of excavated architecture, important artifact (special finds), skeletal remains, and archaeological features. The architecture is surveyed, usually by hand, and drawings are produced with basic measurements as a record of its form and size. Since many of these sites are vulnerable when exposed, the work is often completed in a single summer and architecture is exposed, documented, and preserved through reburial.

Documentation of the work is always important, but when the architectural evidence is covered and the artifacts removed, documentation becomes the central to our mutual goals. For the past 20 years, MRP has relied on conventional 2D products as the public record of our work. The CHC has been working with MRP to explore alternatives for that 2D public record. This paper will

cover the status of collaborative efforts between the CHC and the MRP at understanding the value of digital documentation at various scales. To this end we will explore the use of LIDAR, Photogrammetry, and Structure Light Scanners for use at varying levels of detail and scale and utilization of 3D products.

Terrestrial Laser Scanning

Archaeological fieldwork presents challenges for documentation. Project locations can create adverse conditions for careful documentation through dangerous or difficult contexts, the need for speed, or complex conditions that require multiple approaches. Archaeologists well understand these challenges and also understand how to deal with them through conventional means. One of the embedded advantages of 2D products like drawings and photographs is that they require strategic analysis of site conditions in order to produce the drawings and photographs required to adequately describe and interpret the site. Tools that produce point clouds don't require the same kind of strategic thinking but are not completely void of planning (Dibble 1988). Still, the promise of ubiquitous coverage with point clouds can reinforce attitudes of false confidence in a tool's ability to correct what the operator might neglect.

In our work, laser scanning hasn't come easily, though it is now more common in archaeology in general (Nuebauer 2007). Excavations often occur in deep forest contexts requiring transport of a large amount of equipment. Though new scanners are emerging that are one-quarter the weight and size of our Riegl 390, we do not yet have the resources for them. Since we generally have one chance at recording excavated architecture and the schedule is negotiated with the archaeologists in charge, we must be certain that we have come away with appropriate data. Data registration between scan positions is extremely important so we spend a good deal of time in preparation for the actual scan. Target locations and scan positions are mapped according to object information. Negotiations between CHC and MRP teams concerning the hierarchy of information usually occurred before the CHC team visited the site and continued on location.



Figure 1. Setting up scanning equipment at Chum Balam Nal.



Figure 2. Chum Balam Nal Point cloud, viewed from "above."

Chum Balam Nal

The Chum Balam Nal (CBN) is a residential group with a central elite courtyard, measuring approximately 60m by 30m (Figure 1), that has been excavated during 2009–2011 (Preston 2011*). Because of the dense forest location and multiple level changes it provides good reasons for adopting laser scanning for documentation while also offering practical challenges for it. The most important challenge is the location of targets and scan positions to ensure the capture of critical object information and also provide excellent registration of project scans. To accomplish this pre-scan arrangement requires detailed understanding of the exposed architecture, but it also requires knowledge of important context information such as relationships of buildings, location of artifact discovery zones, burials, and possible burials. Even with excellent preparation, plans can change depending on time, weather, and site conditions. Knowledge of critical information requirements helps frame scan resolutions at each position and decisions to create new

scan positions in the project. Given no malfunctions of operator or equipment the documentation in the form of point clouds of this site was accomplished in 4 to 6 hours. What has actually been accomplished at this point is the capture of many individual scans with the promise of being able to register them well. Though we try to create plenty of overlap with our targets we always back up this system by locating targets with a total station. With manual registration as an option this gives us three possible means of registration to use independently or in combination.

It is misleading to think that this six-hour field session constitutes documentation, but it already has created some benefit. The organic qualities of the architecture coupled with large variations in elevation make hand measuring quite difficult. Plans and sections that include relationships between buildings and site features would require either a great deal of time or an abdication of certain forms of information. Still, there is something



Figure 3. Chum Balam Nal Point Cloud Section.

of value with hand measuring and drawing. The engagement with the site required in hand measuring and drawing provides the benefits of reflection and study. The team performing this work will certainly become experts on site relationships and specific construction details, an expertise that may not be gained even by the managing archaeologist.

With a digital point cloud, the archaeologist must rely on others to create the final product. Is this really a problem? Archaeology is a multidisciplinary activity with many specialists contributing their expertise to the research. Yet, at this point, familiarization with digital scan information is still very limited. Even if there were capabilities to handle translation of point cloud data into knowledge products communicating research with others is difficult. Thus we have suggested that products we produce for them should be 2D and easy to manipulate through CAD or hand drafting. This is not to say that we think they should rest at this point accepting our data and interpretive products. So we also engage in educational experiences to foster comfort with new digital tools that would allow exploration of 3D models and point clouds. But before they reach that point we provide them with 2D orthographic images (Figures 2 and 3) of the scan at a common scale that they can use in printed form or digitally manipulate in graphics and CAD packages.

Photogrammetry

Laser scanners are expensive to own and operate and require experienced personnel connected with the project to manipulate point cloud data and mine information. The high prices of scanners (\$30,000–\$150,000) will keep experienced users in an elite group preventing the creation of the casual user class. Photography was in this same situation 150 years ago, close-range photogrammetry just some 30 years ago (Anderson 1982), and digital photography had the same experience just ten years ago. However, as prices have fallen and technical prowess has accelerated, digital photography has created a large class of casual photographers. Though the point-and-shoot class may not speak the same language as highly experienced amateurs or professionals, they nonetheless know how to manipulate their cameras and the resulting digital images. At a fraction of the \$50,000 and up for a laser scanner, digital cameras are available for between hundreds and a few thousand dollars. With some training in composing images and software such as Photomodeler equipment costs are reduced, field time is short and the result is a 3D surface model or point cloud.

Burials

Burials in Maya settlements are often discovered beneath plaster floors revealing themselves as faint indentions near doorways. These discoveries often bring with them the stress of

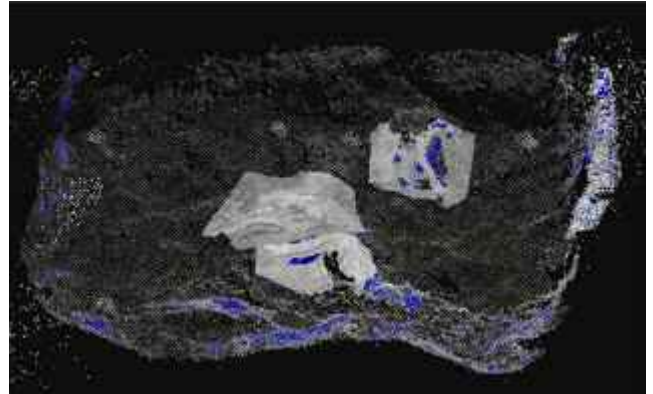


Figure 4. Point cloud created by using stereo pairs.



Figure 5. Carved and Inlaid Shell Disk.



Figure 6. Carved and Inlaid Shell Disk Model.

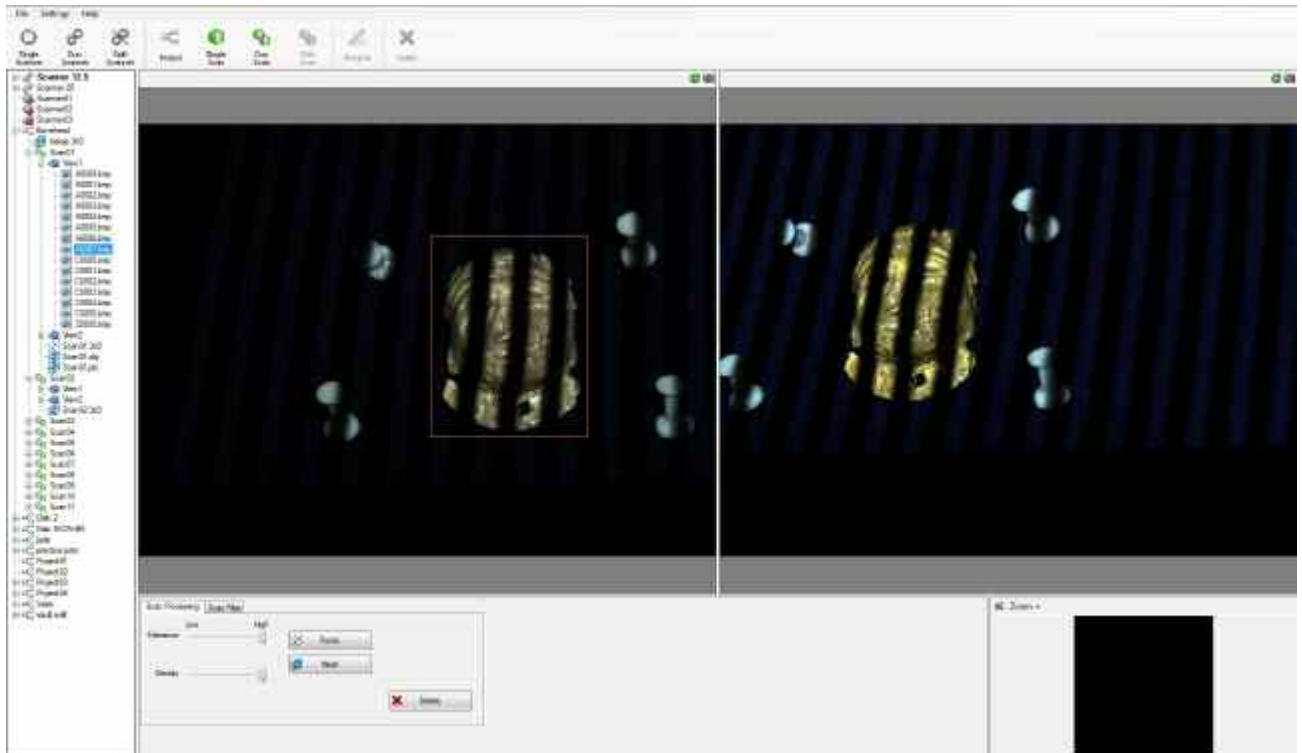


Figure 7. Bone Sculpture With Light Grid.

increased documentation requirements at the latter part of a season when time is short. Because they often contain multiple layers burials are documented multiple times. Each layer is photographed and measured before removal of remains and artifacts continues. Traditional documentation methods can delay progress through the burial layers, as they require direct access to each layer. If, however, field time consists of taking a few photographs, work can continue immediately after the photographs are obtained. With Photomodeler Scan and a calibrated camera we were able to reduce field time to a few minutes and provide orthographic images they needed to trace drawings. The only field requirements are positioning of camera shots that lie within tolerances of stereo pairs, i.e., ratio of distance between shots to distance of object is on the order of 1/4 to 1. Multiple pairs of stereo shots are combined with shots at various angles so that camera orientations may be calculated to high tolerance. If one is pressed greatly for time, a single stereo pair can give very good results. Figure 4 is a point cloud created by using stereo pairs used to create the point cloud. The brighter areas of Figure 4 represent areas of higher resolution processing (2mm point spacing). The burial at Bedrock is an example of shots taken as backups for total station documentation but were processed into a model two years later. Processing time was less than one hour.

Inlaid Shell Disk

Large-scale objects can be modeled with surfaces and textures but they can require a great amount of time and computing resources depending on the resolution requirements of the model. Small objects lend themselves to modeling but are challenging because the resolution of their information is quite high. Another test of Photomodeler was the measuring and modeling of a carved shell disk that had inlaid regions for stones and incisions on its surface. This disk depicts a Teotihuacan style scribe and was, surprisingly, found in a Terminal Preclassic/Early Classic burial in a low status residential group known as Sayap Ha (Guderjan 2007). Burial SH2 was found, as is common, buried below the floor of a low platform for a pole-and-thatch residence. The disk is 60 mm in diameter, which allows for easy access for photography (Figure 5). Though many options exist for measuring and modeling the disk our interest is whether photogrammetry, with a relatively inexpensive package is up to the task in terms of accuracy and resolution, but we also want to know if the process is simple enough to be accessible to those with little photogrammetry background. Ideally one would aim for a completed model of front and back faces complete with edge detail. We only tested the front face with its inlay notches. Using a Nikon D200 with an 18–70 mm lens we created a single stereo pair. After a few minutes of processing we reached the result in Fig-



Figure 8. *Sculptured Bone Carving model.*

ure 6. Creating a textured model that represents an abstracted model is quick and simple, but one look at the shaded model shows it to be a false representation. Without careful attention to point and mesh quality one might take the automatic processing to be successful. This doesn't discount the quality of the photographs or even the initial point cloud processing. Creating final accurate 3D models requires time.

Traditionally the documentation of this disk would be a stippled drawing created through tracing a print of a rectified photograph. Artifacts of this caliber are sent for safe keeping to the Institute of Archaeology, stored out of sight from public view. Do 2D drawings and photographs hold enough information to understand this artifact? In many ways they do, but they necessarily exclude information that might be useful. It seems useful to try and obtain a quality textured 3D model. Like most choices, this goal is achievable at a small initial cost in time but modeling time can be quite extensive. To achieve an accurate finished model is not automatic for the average user, but it is possible.

Structured Light Scanning

Another promising technology for modeling small complex objects is structured light scanning. A number of inexpensive (a few thousand dollars) products exist that give good results. We chose a product from 3D3 Solutions to test the ease of use on artifact models. Though this particular model is a bit cumbersome compared to other mid-priced or higher priced products it is easily transported and setup for work. Structured light scanners operate by projecting a known grid onto the object and calculating coordinates from a stereo pair of images of the deformed grid as it is draped over the object. Figure 7 shows a small 4cm bone sculpture with the resulting grid. This carved



Figure 9. *Bone Carving 3D PDF.*

bone bib-head was also found in Burial SH2 under the floor of a low-status household (Guderjan 2007).

One advantage of structured light scanners is very high sub millimeter resolution in their point clouds making them ideal for very small complex artifacts. A drawback is the need for their projected grid to be seen and photographed thus rendering their use difficult or impossible in bright light conditions. This bone sculpture was modeled from 12 scans from various angles (Figure 8). Like terrestrial laser scanning the individual scans were registered together to form a single point cloud. Instead of using the point cloud directly to create orthographic images for producing 2D drawings, we explored advantages of a triangulated mesh, realizing of course the difficulties faced with creating an accurate model. We chose to utilize 3D developments in Adobe PDF to produce a 3D PDF of the model. Users do not need to have the extended version of Acrobat to read and manipulate the model giving them great leverage in creating the products they need to enhance their research. Figure 9 is an example of a section cut of a 3D PDF. Season Field reports will remain 2D when printed, but as digital documents, artifacts can be viewed, manipulated, and analyzed in 3D.

Conclusions

Technologies used in all of these case studies are not now revolutionary. Scanning and photogrammetry have been around for decades in various forms, but are typically reserved for disciplines with deeper pockets than archaeology. In each of these cases, higher end equipment (or newest versions in the case of terrestrial scanning) might offer better results more rapidly. But

↳ WARDEN, *continued on page 60*

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SPECIAL FORUM ON INTERNATIONAL COLLABORATIONS

EDITOR'S COMMENTS

Kisha Supernant

Kisha Supernant is an Assistant Professor at the University of Alberta and a member of the Committee on Native American Relations (CNAR). She may be reached at Kisha.supernant@ualberta.ca.

Collaborative approaches to archaeological practice have become increasingly common in the past 15-20 years (Atalay 2006; Colwell-Chanthaphonh and Ferguson 2007; Moser et al. 2002; Nicholas et al. 2007). Archaeologists are engaging with descendant and stakeholder communities in ways that are radically transforming how we do archaeology (Colwell-Chanthaphonh and Ferguson 2007). In the United States, much of the genesis for collaboration can be traced back to the passing of the Native American Graves Protection and Repatriation Act (NAGPRA). By legislating repatriation of human remains and burial objects, the law created opportunities where archaeologists and Native American groups could work together. Many members of the post-NAGPRA generation of archaeologists have been raised intellectually in an environment where consultation is a necessary part of doing archaeology (e.g., Silliman 2008). However, many collaborative archaeological projects, such as the ones presented in this forum, have arisen without any legislation structuring the relationship between descendant communities and archaeologists. The SAA Committee on Native American Relations (CNAR) is interested in exploring how collaborative projects form and transform in countries and context where legislation does not require consultation. With this in mind, we approached several scholars who are actively involved in collaborative projects in international contexts to reflect on how the collaborative project began and what the outcomes have been. We received submissions from around the world and highlight here are six different projects that include collaborative efforts in six different countries: Australia, Canada, New Caledonia, New Zealand, the United States, and Tanzania. Some projects, such as those in Tanzania and New Caledonia, are among the first in their respective countries, while others, such as those in Canada and Australia, are part of an ongoing national shift in archaeological practice.

A number of key themes connect these diverse projects and give some indication of the core principles of successful collaborations. The first is the importance of communication. Communication is essential to building relationships of trust and shifting communities' perceptions about the purpose and practice of archaeology. For example, in Tanzania, the members of the research team experienced a very different reaction from residents of the local village after the archaeologists had made an effort to communicate, via posters, the purpose and importance of archaeological information and heritage. In the Inuit Living History Project, a collaborative ethic extended to how the different members of the team worked together, whether they were academics, researchers, or community members. A similar situation arose in Australia, where Smith and Jackson encountered early on the essential role of family relationships and connections in developing true collaborative research practices.

Another theme is the emphasis by local or indigenous communities on education. Lyons et al. created the Inuvialuit Living History Project to address the desire of local communities to develop tools where knowledge could be passed on to younger generations. For Roberts, one of the key concerns of the Mannum Aboriginal Community Association was to educate tourists and visitors about their perspectives on the past. Education, in this case, was about the community members sharing their knowledge and changing perceptions about heritage. In Tanzania, the CHIRP project members are closely involved with the local school to provide support and materials that can be used in the classroom. In Australia, one of the major challenges facing the remote Aboriginal communities is access to education, so the project members worked with local communities to develop training programs.

One final theme that runs throughout several of the articles is the importance of the intangible aspects of heritage that

can be negatively impacted via colonial histories. Reclamation of objects, knowledge, and landscapes are essential to the process of decolonization for many communities. The IPinCH project and related case studies explicitly address issues around the definition of cultural heritage in communities throughout the world.

These articles are just a small sample of the diverse types of community-based archaeological research being undertaken around the world. Even without heritage legislation formalizing a responsibility to descendant communities, archaeologists are working toward the decolonization of the discipline and building strong collaborative relationships with descendant and local communities.

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—Dan Sandweiss, Committee on the Americas Advisory Network member

COLLABORATIVE, COMMUNITY-BASED HERITAGE RESEARCH, AND THE IPINCH PROJECT

George Nicholas and the IPinCH Collective

George Nicholas is Director, Intellectual Property Issues in Cultural Heritage Project and Professor of Archaeology at Simon Fraser University.

What does research on tangible and intangible heritage look like when done in collaboration with descendent communities—especially when they take a leading role? How does a more equitable decision-making process contribute to archaeological practices that are relevant, responsible, and mutually satisfying? And how can ensuring that communities benefit from research on their heritage improve their relations with archaeologists and heritage managers? These questions are currently being explored in the course of a seven-year international project on Intellectual Property Issues in Cultural Heritage (IPinCH), based at Simon Fraser University. This initiative brings together over 50 anthropologists, archaeologists, lawyers, ethicists, heritage and museum specialists with partners from 25 communities and organizations to explore intellectual property-related issues emerging within the realm of cultural heritage and their implications for theory, policy, and practice (www.sfu.ca/ipinch). We are supported by a major grant from Canada's Social Science and Humanities Research Council.

Descendant communities, archaeologists, and other stakeholders are today confronted by a sometimes bewildering set of challenges regarding the appropriate use of cultural images and designs; protocols for bioarchaeological research; fair and appropriate access to archaeological data, museum records, and other archives; cultural tourism and commodification issues; changing legal interpretations of cultural rights; and international heritage protection efforts that purport to incorporate local conceptions of heritage—to name just a few key topics. IPinCH aims to document and learn from the diversity of principles, perspectives, and responses that emerge from these and other contexts dealing with intangible aspects of heritage, and from this to compile and share examples of good practice and other resources. We approach these goals through three complementary components: (a) collaborative, community-based research initiatives (discussed here); (b) an online library to compile and distribute research materials, publications, and protocols; and (c) nine thematic Working Groups exploring the theoretical, practical, ethical, and policy implications of intellec-

tual property. Throughout IPinCH we ascribe to a critical theory approach that seeks to foster positive change in the lives of participants—including researchers, altering course as the research process proceeds based on feedback and ongoing critical reflection on intellectual property issues in cultural heritage.

IPinCH Case Studies

Our project has tried to take a ground-up approach by utilizing a community-based participatory research methodology (see Atalay 2012; Nicholas et al. 2011). We have been able to provide support for 11 community-based studies, now at different levels of completion, situated within Indigenous communities in Canada, the United States, Australia, New Zealand, and Kyrgyzstan. Each study begins with the community partner identifying issues of concern and then collaborating as a co-developer with one or more IPinCH team members to propose a research design and budget. Research methods may include focus groups, community surveys, archival research, interviews with elders, or other information-gathering activities. Such an approach prioritizes community needs, while also fostering relationships that address at least some of the long-standing issues surrounding academic research relating to mistrust, unequal power, and loss of control over the process and products of research. Once the study is complete, research products and data are reviewed at the community level to determine what information can be released to the IPinCH team to inform various meta-level research questions. Community retention and control of the raw data ensures another layer of protection for sensitive information or privileged knowledge. Each case study undergoes multiple layers of ethics review—at the community level, within the home institutions of academic researchers, and at Simon Fraser University.

What is the nature of these case studies and what they are targeting? Here are five examples.

How can we best collect and pass on knowledge about our land and lifeways for use in guiding future development policies and



Figure 1. Young Chatham Islanders Jade Lomano and son Solomon alongside a rakau momori (tree carving), which Moriori believe to be the embodiment of ancestors. Photograph courtesy of Susan Thorpe. Photograph by Robin Atherton.

decisions? The “Moriori Cultural Database, Chatham Islands, New Zealand” study was developed by Susan Thorpe and Maui Solomon from Te Keke Tura Moriori (Moriori Identity Trust), in affiliation with the Hokotehi Moriori Trust and Kotuku Consultancy. Their initiative has established a Moriori cultural knowledge database to record traditional knowledge and protect IP through appropriate protocols, and also contributed to a youth-focused Hokotehi mentorship program on knowledge recording and archaeological methods. Both initiatives contribute to management strategies and development decisions that protect Moriori land and cultural heritage (Figure 1).

How do we protect, care for, and manage the sacred knowledge embodied in ancestral sites while also sharing their lessons in culturally appropriate ways with the public? This question is at the center of “Education, Protection and Management of *ezhibiigaadek asin* (Sanilac Petroglyph Site), Michigan.” Sonya Atalay (UMass-Amherst) with Shannon Martin and William Johnson of the Ziiibiwing Center of Anishinabe Culture & Lifeways of the Saginaw Chippewa Indian Tribe of Michigan are working to determine culturally appropriate ways of providing educational information about a petroglyph site containing over a hundred indigenous teachings to diverse public audiences while at the same time protecting the knowledge and images from inappropriate use. The goal is to utilize Anishinabe values and advice from spiritual leaders in negotiations with Michigan State agencies. The Saginaw Chippewa are again gathering at *ezhibiigaadek asin* for ceremonies but at this time still must have a state employee

unlock the protective fence that presently surrounds the petroglyphs (Figure 2).

What guidelines should apply to knowledge produced from analyzing ancestral remains? “The Journey Home: Guiding Intangible Knowledge Production in the Analysis of Ancestral Remains, British Columbia” is an initiative being collaboratively developed by The University of British Columbia Laboratory of Archaeology (LOA) and the Stó:lo Research and Resource Management Centre (on behalf of the Stó:lo Nation/Tribal Council). Susan Rowley (LOA), David Schaepe and Sonny McHalsie (both with SRRMC) are working with cultural advisers from the Stó:lo House of Respect Care-taking Committee to develop protocols for how to make decisions about the study of human remains. For the Stó:lo, knowing as much as possible about these ancestors informs their approach to repatriation and guides inquiry into multiple issues of scientific process, knowledge production, and intellectual property. The project aims to develop guidelines and protocols for repatriation and analysis of First Nation ancestral remains. These models may then be adopted by other groups as appropriate.

How do we assure the protection and inclusion of our own cultural principles and ways of knowing in government consultations affecting our heritage? The “Yukon First Nation Heritage Values and Heritage Resource Management” study was developed by Sheila Greer, Catherine Bell, and Partners



Figure 2. Members of the Saginaw Chippewa tribe hold regular ceremonies at *ezhibiigaadek asin*, the Sanilac petroglyphs, but do not have a key to the protective fence surrounding the site. Photo courtesy of Stephen Loring.

Champagne & Aishihik First Nations (CAFN) Heritage, Carcross-Tagish First Nation Heritage, and Ta'an Kwach'an Council. This study asks what heritage management based on Yukon First Nations (YFN) values looks like in order to improve their ability to fulfill their rights and obligations as established under their respective Land Claim and Self-Government Agreements. Community-based ethnographic research is being used to identify these values and how they compare to those expressed in western heritage resource management concepts and practices. The team is also examining how Yukon Indian values can reframe approaches to the management of the heritage resources by self-governing YFNs under their respective land claims.

How do we establish protocols for outsiders who work with culturally sensitive sites or information? "Developing Policies and Protocols for the Culturally Sensitive Intellectual Properties of the Penobscot Nation of Maine" was developed by Bonnie Newsom (Penobscot Nation), Martin Wobst and Julie Woods (both with UMass-Amherst). Here the goal is to combine the tribal community voice and knowledge with ethnographic, archaeological and legal information to create policies, procedures and protocols that protect Penobscot intellectual property associated with their cultural landscape, while maintaining compliance with state and federal historic preservation and cultural resource management laws and regulations. Included in this plan are Intellectual Property (IP) and cultural sensitivity training workshops for outside archaeologists and researchers. The Penobscot Nation has established a community-based Intellectual Property (IP) working group to identify aspects of their heritage that are particularly sensitive. The working group is also creating a formalized tribal structure to address IP and other research-related issues.

Other IPinCH-funded projects are "Cultural Tourism in Nunavik" (Nunavut, Canada) led by Daniel Gendron and the Avataq Cultural Institute; "Secwepemc Territorial Authority: Honoring Ownership of Tangible / Intangible Culture" (British Columbia, Canada), developed by Brian Noble (Dalhousie U.) and Arthur Manual (Secwepemcul'w); and "Grassroots Resource Preservation and Management in Kyrgyzstan: Ethnicity, Nationalism and Heritage on a Human Scale" (Kyrgyzstan), led by Anne Pyburn (Indiana U.) and Krygyz colleagues. Two other IPinCH case studies—Inuvialuit and Ngaut Ngaut—are reported on in this issue. In all of these studies, the incentive has come from the community, they develop and direct the study, and they are the primary beneficiaries. Benefits also flow to IPinCH researchers and team members, and from them to other academics, descendant communities, policy makers, and the public at large.

What We Are Learning

Collaborative research has the potential to reveal important

insights into the different value systems relating to "heritage," which can contribute to successful heritage management, especially when coupled with an ethnographic approach (Hollowell and Nicholas 2009).

At the same time, we have found that the *process* of collaborative research can be as illuminating as what it produces. For example, we continue to learn from our community partners about the intrusive nature of research; they see this as an opportunity to teach us how to conduct research in a respectful manner. Constant critical reflection and willingness to respond constructively to critique are thus requisite.

Beyond the anticipated results of each case study, other benefits accrue with IPinCH partners coming together, finding support for the challenges they face (e.g., archaeotourism) and launching initiatives of their own. These may include symposia and workshops on, for example, commodification of the past, which are designed to meet the needs of community partners affected by loss of control over their heritage.

There are considerable challenges to collaborative research (Colwell-Chanthaphonh and Ferguson 2008). It requires considerable time and effort, even where participants are building on relationships previously developed between the community and one or more team members. Things take longer than expected, and there are unavoidable and unanticipated delays. And because the outcome may be uncertain, such research can be particularly risky for untenured scholars and graduate students. Finally, some of the biggest challenges our projects have faced involve the time and energy required to work with multiple institutions—often transnationally—to get funds flowing and ethics reviews completed. In some instances we have to have three separate ethics reviews for a single study. We have found that university financial officers and IRBs need and want to be educated about community-based research, which is generally unlike anything they have dealt with before—the same holds true for most archaeologists, who have not had to prepare an ethics application.

Conclusions

If we hope to comprehend the nature and impact of heritage-related issues upon people's lives, it makes sense to see how these play out on the ground, rather than limit this just to discourse between scholars. We also need ensure that benefits flow both ways between community partners and academic researchers. A deeper understanding of what is at stake will promote research relationships that are more equitable, responsible, and accountable. This can only be done by working collaboratively with descendant communities.

↳ NICHOLAS, continued on page 35

THE NGAUT NGAUT INTERPRETIVE PROJECT

COLLABORATION AND MUTUALLY BENEFICIAL OUTCOMES

Amy Roberts and Isobelle Campbell

Amy Roberts is an archaeologist at the Department of Archaeology, Flinders University, Adelaide, South Australia and Isobelle Campbell is the Chairperson of the Mannum Aboriginal Community Association Inc.

This paper details a collaborative endeavor between Flinders University archaeologist, Amy Roberts, and the Mannum Aboriginal Community Association Inc. (hereafter MACAI). Together Roberts and MACAI began an interpretive project for a significant site known as Ngaut Ngaut to the Aboriginal community (named after an ancestral being). However, this place is invariably referred to as Devon Downs in archaeological textbooks. Indeed, one of the aims of the Ngaut Ngaut Interpretive Project has been to reinstate the traditional toponym in broader literature. This step is seen as just one way in which Indigenous peoples can counter colonialism.

Located on the Murray River in South Australia this rock-shelter site was the first in Australia to be “scientifically” excavated. The excavations, conducted by Norman Tindale and Herbert Hale, began in 1929 (Hale and Tindale 1930). Their research provided the first clear evidence for the long-term presence of Indigenous Australians in one place (Figure 1).

Prior to Hale and Tindale’s excavations little systematic research had been conducted in the field of Indigenous Australian archaeology. In fact, the thinking of the day was that Indigenous Australians were recent arrivals to Australia and consequently it was generally believed that the material culture of Indigenous Australians had not changed over time. Hence, the research at Ngaut Ngaut provided a turning point in the way the Indigenous Australian archaeological record was viewed.

The impetus for the Ngaut Ngaut Interpretive Project arose when Roberts was working as an “expert” anthropologist on native title issues in the region in 2007 and visited the site with MACAI representatives (although she had worked with the community since 1998). During subsequent discussions, it became clear that MACAI’s cultural tourism operations were being hampered due to the fact that the Director of National Parks and Wildlife had closed parts of the site as a result of riverbank erosion during the recent and severe drought suffered in many parts of the country. As a result,

MACAI were in need of interpretive materials that could be used during such times—and so began the collaborative journey.

MACAI had originally requested that Roberts provide photographic images they could use during park closures. However, as discussions developed it became clear that together Roberts and MACAI could create a suite of interpretive materials (for both off and on-site purposes) that would benefit the community’s cultural tourism ventures as well as their aspirations to educate the public about Aboriginal culture and to foster greater cross-cultural understandings (Figure 2). Funding was obtained for Stage 1 of the project (from the Aboriginal Affairs and Reconciliation Division in South Australia) and interpretive signs, educational posters (to be used during closures) and brochures were produced.

The content of the signs, posters, and brochures specifically incorporated the many tangible and intangible aspects and values of this significant place. It was important for MACAI that both tangible and intangible values relating to the site were addressed in the interpretive content. Indeed, whilst MACAI value the site’s archaeological history and the physical evidence of the excavations, they also wanted the site’s cultural importance to be presented to the public. In particular, they wanted to present to the public some of the cultural complexities relating to Ngaut Ngaut and to redress the standard, one-dimensional and arguably colonial archaeological story that exists in Australian textbooks.

Some of the many intangible values attached to the site that required interpretation included: rock art interpretations and cultural meanings, “Dreamings,” oral histories, discussions about Aboriginal group boundaries, “totemic” issues and “bushtucker” knowledge (see also Roberts et al. 2010). The funding obtained for Stage 1 also allowed for the employment of a local artist to provide paintings to be used in the interpretive materials to enhance some of the areas listed above. Similarly, MACAI were engaged to produce the sign frames rather than contracting the work out to a non-Indigenous company. Indeed, throughout the project Roberts and



Figure 1 The cliffs at Ngaut Ngaut. Photograph by Amy Roberts.

MACAI worked to create additional community benefits as further outlined below.

Throughout Stage 1 of the project it became apparent that MACAI were becoming increasingly concerned about problematic online webpages about Ngaut Ngaut such as:

1. Brief, unfocused and/or inaccurate information on State government and/or tourism websites. For example, tourism websites often only highlight one or two values relating to the site and this information tends to be replicated. State government websites primarily discuss risk management issues or where detail is included (e.g., in management plans) some of this information is inaccurate (e.g., incorrect dates have been reported for the site) and again only certain aspects of the site are emphasised; or
2. Inaccurate and/or offensive information—generally blogged by tourists who have visited the site or websites that use images of the site and then claim copyright over them.



Figure 2 Isobelle Campbell (MACAI chairperson) (left) talking about one of the interpretive signs at Ngaut Ngaut. Photograph by Amy Roberts.

As a result of these concerns, and through discussions with George Nicholas and the IPinCH (Intellectual Property Issues in Cultural Heritage) group, a second stage of the project was devised and funded.

Stage 2 has seen the development and near completion of an online interpretive book (to be hosted by the South Australian Department of Environment and Natural Resources) as well as a hard copy version, which will be published by IPinCH. Indeed, prior to the prevalence of the Internet MACAI were able to control the content shared with visitors to Ngaut Ngaut. However, the Internet now poses significant challenges to the presentation and regulation of cultural information, site images and copyright issues. As such the key differences between the IPinCH-funded work and other Internet resources is that the materials have been developed in a collaborative, structured and culturally sustainable manner.



Figure 3 L-R: Isobelle Campbell and Amy Roberts presenting a paper at the 2011 IPinCH conference in Vancouver. Photograph courtesy of IPinCH.

However, as was the case with Stage 1 of the project, additional community benefits were incorporated into the Stage 2 funding. For example, funding was obtained through IPinCH for MACAI representatives to attend international and national conferences/symposia to talk about the Ngaut Ngaut Interpretive Project and to learn from their international and national Indigenous counterparts as well as from other archaeological projects and practitioners (Figure 3).

Similarly, funds were used to enable MACAI members to visit the excavated Ngaut Ngaut collection, which is currently housed at the South Australian Museum. This visit proved to be a significant and emotional event for the community members who attended and excerpts from the interviews conducted afterwards have been incorporated into the online interpretive materials (Figure 4). Proceeds from the sale of the hard copy version of the book will also be fed back into



Figure 4 L-R: Isobelle Campbell, Anita Hunter and Ivy Campbell inspecting the excavated Ngaut Ngaut collection at the South Australian Museum. Photograph by Amy Roberts and courtesy of the South Australian Museum.

MACAI community initiatives and their management activities at Ngaut Ngaut.

Given that the Ngaut Ngaut Interpretive Project has truly been a jointly conducted initiative it is situated at the progressive end of what Colwell-Chanthaphonh and Ferguson (2007) describe as the “collaborative continuum.” While such a collaborative undertaking requires a significant investment of time and energy (see Nicholas et al. 2011 for additional discussion) for both researchers and communities, this does not mean that such projects cannot be mutually beneficial. Indeed, as is clear in the discussion above all stages of the Ngaut Ngaut Interpretive Project were designed to include additional community benefits (above and beyond those relating to the central tenets of the project). Similarly, Roberts has also furthered her career as a researcher and academic by being able to publish various articles and a forthcoming book (often coauthored with MACAI or members of MACAI). However, Roberts and her home institution (Flinders University) have also benefited in other ways that should also be acknowledged—e.g., with MACAI approving graduate-level student projects on various aspects of the Ngaut Ngaut collection and by hosting field schools at the site. Indeed, university programs in Australia are now dependent on Indigenous communities to provide such approvals and their collaboration/participation in these programs needs to be accorded due recognition.

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WORKING WITH LOCAL COMMUNITIES AND MANAGING CULTURAL HERITAGE IN IRINGA REGION, TANZANIA

Katie M. Biittner and Pamela R. Willoughby

Katie M. Biittner and Pamela R. Willoughby are with the Department of Anthropology, University of Alberta, Edmonton, Alberta, Canada.

Since 2006, the Iringa Region Archaeological Project (IRAP) has been conducting field research on the rich archaeological and historic heritage of Iringa. IRAP is a rapidly growing team, composed of academics, researchers, and graduate students in Canada, the U.S., England, Australia, and Tanzania. The main goal is to investigate the Upper Pleistocene and later history, in relation to models of the African origins of *Homo sapiens*. Before our team arrives in Tanzania, extensive preparations are required including applying for research clearance from COSTECH (The Tanzanian Commission on Science and Technology). This is required for all participants, i.e., any individual who will be a part of our team regardless of nationality or position. We also notify the Director of the Division of Antiquities, Ministry of Natural Resources and Tourism, Government of Tanzania, of our intent to apply for COSTECH clearance. This is because Antiquities will review our file and provide our excavation license. Without COSTECH clearance we could not receive an excavation license and we will not receive COSTECH clearance without the approval of Antiquities, the division responsible for historic resources on the mainland of Tanzania. One of the requirements for receiving COSTECH clearance is that foreign researchers must work with a local collaborator, a Tanzanian national who “vouches” for the quality of your research and your character. This process of acquiring appropriate legal permissions to conduct archaeological fieldwork therefore necessitates successful (i.e., ethical and cordial) collaboration with local archaeologists, academics, and professionals. Once these two permits have been obtained we are assigned an Antiquities Officer who will accompany us for the duration of our field season and observe all aspects of our research.

Our official duties and obligations continue upon our arrival in the field research area. We spend days greeting local officials from every branch of government and within every community we visit to introduce ourselves and to explain our reasons for conducting research in their jurisdiction. At any time we could encounter resistance to our research and find ourselves unwelcome; our acute awareness of the distrust and suspicion faced by foreign researchers was one of the

main motivations behind developing a research program focused on communication and local collaboration.

Prior to IRAP’s investigations, little archaeological research had been undertaken in this region. In 2006, preliminary test excavations were undertaken at two rockshelters: Magubike and Mlambalasi. The purpose of this preliminary study was to determine the archaeological potential, artifact density, and stratification of rockshelter sites in the region (Biittner et al. 2007). Mlambalasi rockshelter is located next to the burial site of the nineteenth-century Uhehe Chief Mkwawa, a leader in the resistance against German colonial forces, and as such the site has important cultural and historic significance. Magubike rockshelter is located adjacent to the village from which the name is derived. Consequently, many local people visited the site on a daily basis while we were working and expressed a vested interest in what we were doing on their land and with their resources. Although from our perspective the field season was very productive and rewarding, it was clear that local communities had concerns about our presence and our motives.

In 2008, IRAP returned to undertake a large-scale regional survey documenting the distribution of sites and stone raw material sources. Surface materials were collected at 12 locations, including a number of previously unrecorded archaeological and heritage sites. Test excavation at Magubike rockshelter was continued to determine the extent of the archaeological deposits.

It was another successful field season but not just because of what we accomplished archaeologically. 2008 was the first time we brought along posters for distribution at local offices and museums. The posters were prepared in both English and Swahili, and described our research. Small handouts were also prepared of the posters to give out everywhere—offices, schools, museums, churches, and to anyone who asked who we were and what we were doing. The reception was astounding. We repeatedly heard comments like “many foreigner researchers promised to bring back the information they learned from working on our land, you are the first



Figure 1: “The Archaeological Heritage of Iringa Region, Tanzania” poster distributed throughout Iringa region and on display in local schools, offices, museums, hotels, and restaurants.

to actually do so.” Magubike village called a meeting and invited us to attend. At this meeting they indicated that they had previously been skeptical of what we were doing and why, but after taking the time to read the poster they now understood. We were formally invited to continue our work at the site and asked to continue to share our information with them. Many people commented on how they recognized us and our names from the posters. These posters marked our first huge step in earning the trust of the communities with which we hoped to collaborate.

We returned in 2010 for more fieldwork and brought more posters. This time we created three posters: a regional one similar to that distributed in 2008 (Figure 1), an East African culture history overview (Figure 2), and one focused entirely on Magubike rockshelter (Figure 3). The East African Culture History poster was developed after recognizing that we were using terminology with which many local people were unfamiliar. We prepared this instructional tool particularly for the secondary school in Magubike, using images taken of artifacts, fossils, and skeletal specimens at the University of Alberta, photographs taken by Biittner of sites, or open source materials. We focused on Magubike rockshelter for another poster to continue to build a trusting and collaborative relationship with the village of Magubike. The poster emphasized the importance of Magubike rockshelter from the perspective

of human evolution, East African culture history, and, for the first time, cultural heritage management. The school children, in particular, were so excited by this poster of “their site.” At the ceremony where we handed over these posters to the school, the headmistress, teachers, and students all spoke about the sense of pride they all felt knowing they had such an important part of human heritage in their backyard.

From Posters to Management: Cultural Heritage in Iringa Research Program (CHIRP)

The posters have proved to be only one small, but important, step in engaging local communities. Since we began our poster “campaign” we have been approached by various community members and groups asking for support and assistance in education and economic development. Our response to this request was to form the Cultural Heritage in Iringa Research Program (CHIRP). CHIRP is a long-term program which will involve the direct engagement of local communities using interviews, public meetings, and workshops at schools in the region towards the collective and collaborative management of cultural heritage.

Through CHIRP we intend to:

1. provide support to local archaeologists, cultural, and

East African Culture History



















DATES	CULTURAL PERIODS	CHARACTERISTICS	HOMININS
Present – beginning of historic records	Historic	Written documents Early civilizations	Anatomically modern <i>Homo sapiens</i>   
3000 years ago – historic times	Iron Age	First pottery Domesticated plants & animals Iron smelting & smithing Village life Origin & spread of Bantu speaking populations  	
40,000 – 3000 years ago	Later Stone Age (LSA)	Micro lithic technology Composite tools Hunters/gatherers 	
200,000 – 40,000 years ago	Middle Stone Age (MSA)	Retouched flake tools Levallois technology Hunters/gatherers  	
1.5 million to 200,000 years ago	Early Stone Age (ESA)	Acheulean Large bifacial tools (handaxes, cleavers) Hunters/gatherers  	<i>Homo ergaster/Homo erectus</i>   <i>Homo heidelbergensis</i> 
2.6 – 1.5 million years ago		Oldowan Earliest evidence of technology: pebble & flake tools Foragers, hunters, or scavengers  	<i>Homo habilis</i>  <i>Homo rudolfensis</i> 

Figure 2: “East African Culture History” poster prepared as an instructional tool for the secondary school at Magubike village.

antiquities officers (including access to resources for the development of professional and conservation skills);

2. improve public awareness regarding conservation of movable and immovable cultural resources;
3. educate and work with local communities in fields related to cultural heritage and cultural tourism;
4. work with local communities in developing, documenting, and presenting their own local histories; and
5. work with educators to develop relevant curriculum connecting local archaeology with key events in human evolution.

We will continue to prepare and provide posters based on information generated from both consultation with local peoples and the result of our ongoing archaeological research projects. We hope to expand our translations beyond English and Swahili to include local, threatened languages like Kihehe.

As Magubike rockshelter is located so close to the secondary

school (you can see it from the classroom), it provides an excellent opportunity to give students hands on experience doing archaeology including laboratory analysis and interpretation. This means the people who have a vested interest in the information produced by our research will play a direct role in constructing the narrative (what does it mean, what are the implications of our findings) and in disseminating the results. We hope to work closely with local people to find more culturally relevant or appropriate ways of disseminating our results. Illiteracy is an issue in Iringa, which means our posters are not the best long term solution for outreach. We must make all aspects of our research and our discipline accessible.

In the long term we will continue to document the historic and archaeological potential of Iringa, to improve conditions on heritage sites and in collections, and to alleviate poverty by supporting the cultural tourism industry in Iringa. By partnering with local artisans and tour operators, we can help to bring money into the local economy. A number of Magubike villagers commented that they could not understand why, if the sites in Iringa are so important, tourists are

Archaeological Significance of Magubike Rockshelter

Katie M. Biittner,¹ Pastory M. Bushozi,^{1,2} Pamela Willoughby,¹

¹Department of Anthropology, University of Alberta, Edmonton, Alberta, Canada ²Archaeology Unit, University of Dar es Salaam, Tanzania

Introduction

Tanzania is well known for the richness of its Stone Age past, but what we know about its early history comes from a limited number of northern sites such as Olduvai Gorge, Hadza rockshelters and Ilmorog Cave. The Iringa region in the south, however, also contains a long Stone Age record. It begins with the Acheulean of Isania and Ilmorog and continues in a series of great rockshelters and caves. These rockshelters may contain the entire post-Acheulean cultural record.

For eight weeks during July and August of 2006, test excavations were conducted at two rockshelter sites, Magubike and Mwalobaki. Collections on surface materials accrued at the first rockshelter, Kibwezi. The purpose of the preliminary study was to determine the archaeological potential, artifact diversity, and stratification of rockshelter sites in the region.

In 2006, we returned to Iringa to undertake a large-scale regional survey in order to document the distribution of sites and stone tool cultural zones. Surface materials were collected at 12 sites, primarily unexcavated sites. Test excavations at Magubike rockshelter was continued in order to determine the extent of the archaeological deposits.

Our 2006 and 2008 research has demonstrated the archaeological and cultural significance of Magubike rockshelter in particular. This poster outlines this archaeological research, its results, and the importance of this site to local people, the people of Tanzania, and our understanding of modern human origins.

East African Culture History

The archaeological record in Africa spans the last 2.5 million years, overlapping with the appearance and biological evolution of the genus *Homo* (Willoughby 2007). Based on material from South Africa, the Earliest, Middle, and Later Stone Ages (ESA, MSA, and LSA) were first defined using technological attributes of lithic artifacts (Jochims and van der Linde 1978).

The ESA includes both the Oldowan and the Acheulean. Oldowan technologies are composed of flint, detached from pebble cores, and the tools themselves. Acheulean assemblages include variable numbers of bifacial hand axes, cleavers, and picks which are manufactured via large flakes or cores. The Acheulean MSA transition occurs when the large bifacial hand axes and cleavers are replaced by unifacial or bifacial pebbles – likely representing a cultural shift from hand led to hand led tools. The MSA is characterized by flint and blade tools, whereas the LSA features flint and bone tool technology (Willoughby 2007).

Magubike (M607-01)

Magubike is a rockshelter complex on the top of a small hill or butte in the village of the same name. There are two main chambers, with Iron Age material scattered on the surface. There are also artifacts strewn out on the site below the shelter and MSA sites exposed on the surface of a large tobacco field below.

In 2006, three test pits were excavated. Test pit 1 produced a sequence of Iron Age – LSA – MSA. Test pit 2, in the second chamber, contained the Iron Age, and at a depth of 50 cm, the same kind of MSA occurred deeper in test pit 1. As a large rock generated any further excavation, we put another 1 m² adjacent to this test pit. This second test pit 1, and includes about 50 cm of Iron Age materials, then, without a break in the sequence, LSA, and then MSA artifacts. In test pit 3, we recovered many local mammal bones and 0.5 fossil human teeth. A radiocarbon date was required from a Acheulean hand axe test pit three near where the teeth were found, and places the MSA occupation around 41,000 years ago.



Figure 1: Stratigraphic profile for test pit 1. Figure 2: Stratigraphic profile for test pit 2. Figure 3: Stratigraphic profile for test pit 3.

In 2008, we returned to Magubike to excavate several test pits outside of the rockshelter, and to survey for other sites in the immediate area. Twelve Iron Age test pits were excavated near the rockshelter. Only those in close proximity to the rockshelter contained cultural materials. Analysis of these materials is currently ongoing.

Archaeology & Cultural Heritage Management

Through our Cultural Heritage Management program we intend to:

- 1) improve public awareness in the conservation of movable and immovable cultural resources, and
- 2) educate and work with local communities in fields related to cultural heritage, particularly, and cultural tourism.

The project will also provide support for local archaeologists, cultural and Antiquities officers in professional and conservation skills. We will prepare and provide historical and prehistoric consultations and reports based on information generated from both consultation with local people and the results of our ongoing research projects. We begin documenting these materials in 2008 and will continue to do so as our research in this region continues and as new information is obtained.

Our long term strategy is to document the historic and prehistoric potential of Iringa, improve conditions on heritage sites and collections and mitigate poverty by providing tourism facilities in Iringa and surrounding regions. This could be achieved by providing relevant training for local communities, cultural, Antiquities and tourist officers as well as teachers and school children of primary and secondary schools located within the project area.

In October 2008, Dr. Willoughby gave a guest lecture at the University of Dar es Salaam and Mwanza University. These lectures provided information to our colleagues in the Archaeology Unit and education students about our research programme. Further they expressed our commitment to share data, discuss issues, and collaborate with local researchers.

Discussion & Future Research

Without an international research effort, our understanding of the past of a particular region, such as the archaeology of stone age sites in Tanzania, may be incomplete or of a fragmentary nature. The appropriate model, which has been applied to East Africa (Willoughby 2007), is that of a research network. This network is composed of individuals from different disciplines and geographical areas who are interested in the study of the past.

Future research in Iringa will focus on the following areas:

Archaeological Excavations

Excavations will be conducted at the rockshelter sites and in the surrounding area. The goal is to determine the extent of the archaeological deposits and to identify the cultural zones represented by the sites.

Public Outreach

Public outreach activities will be conducted in Iringa and the surrounding area. The goal is to improve public awareness of the archaeological significance of the sites and to educate the local community on the importance of cultural heritage.



Figure 3: In response to concerns expressed by villagers of Magubike village, we prepared a poster highlighting the archaeological significance of their rockshelter.

not flocking to Iringa as they do to Arusha (the starting point for safaris to Olduvai and the Serengeti). Much of the damage to existing sites across Tanzania can be attributed to poverty. Local villagers now regularly report looting activity stating that they understand the intellectual and cultural value of sites and their potential to draw tourists to the region because of our posters. Our posters are only the beginning of what we hope will be a successful outreach program to engage local people.

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COLLABORATIVE RESEARCH IN NEW CALEDONIA

Ian Lilley, Christophe Sand, and Frederique Valentin

Ian Lilley may be reached at the Aboriginal and Torres Strait Islander Studies Unit, University of Queensland 4072, Australia. Christophe Sand may be reached at the Institut d'Archéologie de la Nouvelle-Calédonie et du Pacifique, Nouméa, Nouvelle-Calédonie. Frederique Valentin may be reached at the Centre National de la Recherche Scientifique, UMR 7041, Maison de l'archéologie et de l'ethnologie, René Ginouvès, Nanterre, France.

Our project concerns the tiny, remote island of Tiga, smallest of the inhabited islands in New Caledonia's Loyalty Islands. New Caledonia is a largely autonomous French territory some 1,200 kilometers off the northeast coast of Australia (Figure 1). The territory's main island, Grande Terre, is geologically complex, while the Loyalties, which lie east of Grande Terre, are simple raised coral reefs. New Caledonia's indigenous people call themselves Kanaks. Today, they share the islands with a substantial number of settlers of European, Asian (primarily Vietnamese) and Polynesian background, virtually all of whom live in and around the capital, Nouméa. Apart from one expatriate European family running the primary school and one long-term resident from Tahiti, Tiga's permanent population of around 150 is entirely Kanak. There is no tourism and no commercial industry. People live by gardening, fishing, and hunting. Most people of Tigan descent live elsewhere, mainly on the neighboring and very much larger islands of Maré and Lifou in the Loyalties, or in Nouméa.

Our work on Tiga includes local archaeologists and oral historians of Kanak, European and Asian descent as well as colleagues of European descent from metropolitan France and Australia. We communicate with the local community in French, which is New Caledonia's lingua franca, as well as local island languages. We have been exploring the limits of "translatability" of archaeological objectives and findings on the one hand and local conceptions of history on the other. We have found that we can mesh certain details of both in a way that works for archaeologists as well as local people. In doing so, we have come to realize that commonalities of perception on a higher plane of abstraction are ultimately more important to this process than lining up precise details.

Archaeologically speaking, the project was motivated by the fact that New Caledonia is unique in Pacific prehistory. The founding human occupation some three thousand years ago occurred as part of the dispersal of the well-described Lapita

cultural complex, but differed in several critical respects from elsewhere in the Lapita distribution. Subsequent trajectories of change produced levels of cultural diversification unparalleled further East in Remote Oceania, the vast region beyond the main Solomon Islands chain. The problem for archaeologists is that their interpretations of New Caledonia's dynamic human history conflict with local Kanak views. The latter are largely either versions of or a reaction to synchronic historical and ethnographic pictures developed before modern archaeology started in the region. These latter scenarios paint "traditional" Kanak society as a small-scale and semi-nomadic one governed through petty chiefdoms. Such descriptions have been completely undermined by the archaeological demonstration that the last millennium before European contact was characterized by a densely inhabited landscape of labor-intensive horticulture organized by strong chiefdoms, which collapsed as a result of profound demographic and cultural disruption between initial European contact in 1774 and the French takeover in the 1850s.

This dramatic archaeological reappraisal of "traditional Kanak culture" deeply unsettles many indigenous New Caledonians as well as the expatriate scholars who promoted pre-archaeological views. These sentiments also are felt in relation to the archaeological demonstration that there were major cultural shifts in the archipelago during the preceding three millennia of human activity. On this basis, exactly what archaeology is "for" in New Caledonia remains as unclear to most Kanak, as it does to many other indigenous people around the world. In reaction to attempts by settlers to characterize Kanaks as just another group of migrants who have no more claim to land and cultural rights than any other group in the modern population, Kanak activists and their European sympathizers have attacked the entire concept of history and long-term cultural change as a tool of neocolonial oppression. As in many other settler societies, activists promote a two-step model in which a static precolonial

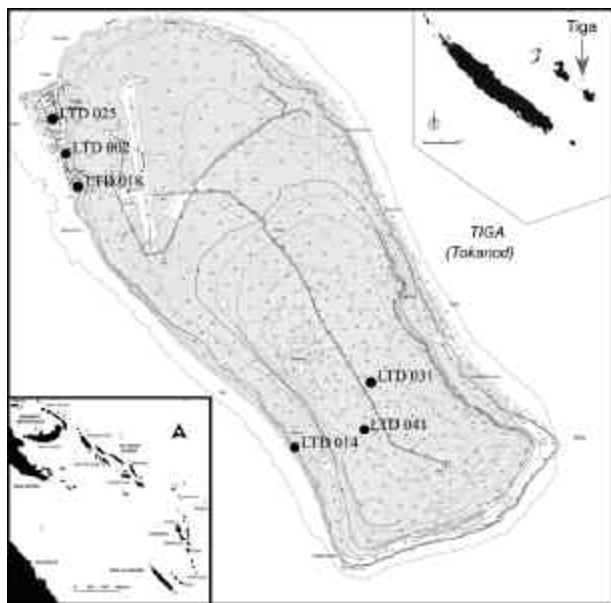


Figure 1. Location map of Tiga Island, Loyalty Islands Province, New Caledonia (showing selected sites not discussed in the text).

“Golden Age” was destroyed by Western colonization. In this scenario, the population of New Caledonia is polarized as “indigenous” or “invaders.” This division emerged in the late 1970s. It led to a major political emergency, including periods of undeclared civil war in the 1980s, the after-effects of which have not entirely dissipated and make archaeology impossible in a few places.

So, what have we done on Tiga against this backdrop? Over four major seasons of fieldwork as well as several shorter visits we have explored a significant part of the island including some of its many caves, and mapped and test-excavated a number of sites from different periods in the island’s history back to an initial Lapita settlement. Before the start of the archaeological fieldwork, the team’s Kanak oral historian recorded oral histories and mythological traditions in great detail. The archaeological survey started with the recording of the sites that the local clans considered important in their history, without any consideration for their archaeological significance. Although analysis is not complete, we have delineated a sequence of occupation that charts the movement of the population from an initial beach occupation in Lapita times up onto the higher parts of the island where nearly the entire population lived until European contact when missionaries encouraged people to move back down to the beach area where nearly everyone lives today. We have

demonstrated significant expansions in habitation and subsistence gardening on the raised parts of the island during the first and second millennium AD. This expansion extended into very rugged and difficult peripheral areas, in which living and working would have required great effort. This intensification suggests that there was a period of population and subsistence stress on the island, as there was elsewhere in New Caledonia at this time. Perhaps the most intriguing thing we have found is that people on Tiga overcame a complete lack of surface water by creating imaginative and highly effective water catchment systems in the island’s many caves (Figure 2).

We have been attempting to integrate these archaeological findings with oral tradition and myth to produce long-term history that makes sense to local people and us alike. While there is certainly a reflective, theoretical dimension to our work, our primary interest is quite pragmatic: to get local people to engage with archaeology in whatever way best works for them. Rather than try to match specific archaeological and oral-historical/mythological details, which in our experience frequently bogs down in Melanesia in irreconcilable differences of opinion, we have chosen to meld our results with local historical perspectives on a more abstract, thematic level, emphasizing the sweep of history and the classes of events and processes within which the archaeological nitty-gritty is situated. Archaeological details are thus still crucial, providing the “beef” as it were, but they are framed in a larger context of meaning which better reflects the shared ‘meta-interests’ of locals and archaeologists. Such meta-interests are captured well by Tim Ingold (2000:189), who, quoting Adams, recognizes that “for both the archaeologist and the native dweller, the landscape tells—or rather



Figure 2. Artificial subterranean water-harvesting feature, Tiga Island (Author’s (CS) hand and green torch for scale to left).

**Les chercheurs d'eau :
Mythes, histoires et archéologie de Tokanod**

Préface

Introduction : contexte

Chapitre I. Premier peuplement – le souffleur de conque

- Origine géologique de Tokanod
- Mise en place de la dune
- Première installation Lapita et ses caractéristiques 2500-2700 BP
- Données de LTD018

Chapitre II. La montée sur le plateau – les explorateurs de l'eau

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- Les plus anciennes datations des grottes 2100-2300 BP
- Les données de Cholé et abri LTD076

Chapitre III. L'humanisation du plateau – Siwen

- La traversée des animaux (rat et poule sultane) 1000-2000 BP
- Transformations de la végétation
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- Données sur le plateau de la côte Est (zone sans sépultures, très peu de coquillages)
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Chapitre V. Conflits et évolutions sociales/environnementales – Les deux géants

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- Densification des occupations (datations sites et enclos plus récents) <1500 BP
- Cimetières étudiés
- L'implantation des Kiamu Xetiwaan

Chapitre VI. Les dernières chefferies du plateau - La guerre de Ruet

- Les données archéologiques (four du plateau, Cholé etc) <500 BP – ethnographique
- La chefferie d'Umewac et la division du plateau
- La christianisation et l'histoire du maïs
- La descente vers le bord de mer

Conclusion. La nature du lien entre mythes, histoires et archéologie ?

ANNEXES. Textes en langue, mot à mot, traduction

is—a story, 'a chronicle of life and dwelling' (Adam 1998:54)." To put it simply, we have discovered that historical particulars do not need to match exactly to match effectively. We have found that archaeology and local narratives can agree, for instance, that certain broad types of activity occurred, perhaps even in generically similar locations in roughly equivalent sequences. To use archaeological terms, on Tige we have shared interest in the physical origins of the island, for example, as well as in first colonization, the introduction of domesticates and other exotic fauna, variations in population movement to the island and the shifting directions of such movement.

We have been able to collate these shared interests together in our community publication, a tentative outline of which is shown in Figure 3 (Tikanod is the Maré word for Tige). The first chapter concerns Tige's physical origins, where we recount the story of a man raising the island from the sea by blowing a conch trumpet before we relate geological understandings of the process, including the formation of the main beach area where first colonization occurred. That occupation is then discussed. The second chapter considers the movement to the plateau and the discovery or at least initial major harvesting of subterranean water sources, introduced by a local story concerning the latter. The remaining chapters move through the archaeological sequence tying in myth and oral history as appropriate, up to the "last chiefdoms on the plateau" and the return to the beach in missionary times. We are aware that much of the oral history and myth is not sequential in the way we have ordered it to blend with the archaeology. We are also well aware that once committed to print, such a sequential scheme may become cemented as the traditional truth of things. We have done no harm to the traditions and stories themselves though, and Tiges both on and off island are more than capable of understanding what we have done and why. They are comfortable with our approach and appreciate our efforts to "meet them halfway." On that basis, we claim some success in helping them understand "what archaeology is for," which in turn we hope will help us win greater acceptance of and interest in archaeology elsewhere in New Caledonia.

Acknowledgments. We thank the people of Tige for their friendship and collaboration. David Baret and Dan Rosendahl produced Figure 1.

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Figure 3. Tentative contents of Tige community publication, showing integration of local and archaeological histories.

THE INUVIALUIT LIVING HISTORY PROJECT

**Natasha Lyons, Kate Hennessy, Mervin Joe, Charles Arnold,
Stephen Loring, Albert Elias, and James Pokiak**

Natasha Lyons is a Ph.D and Partner in Ursus Heritage Consulting; Kate Hennessy is an Assistant Professor in the School of Interactive Arts and Technology, Simon Fraser University; Mervin Joe is an Inuvialuit Resource Management and Public Safety Specialist, Parks Canada; Charles Arnold is an Adjunct Professor in the Department of Archaeology, University of Calgary; Albert Elias is an Inuvialuit Elder and professional interpreter; Stephen Loring is a Museum Anthropologist at the Smithsonian Institution's Arctic Studies Center; James Pokiak is an Inuvialuit Elder and big-game hunting outfitter.

The Inuvialuit Living History Project was initiated in November 2009 with a visit by Inuvialuit community members and non-Inuvialuit collaborators to the Smithsonian Institution's MacFarlane Collection: 300 remarkably preserved ethnographic objects and nearly 5,000 natural history specimens. These items were acquired by Hudson's Bay trader Roderick MacFarlane while running a fur trade post among Anderson River Inuvialuit in the 1860s (Figure 1). Elders, youth, seamstresses, anthropologists, archaeologists, educators, and media specialists traveled from the Western Arctic and other locations across North America to learn more about this ancestral collection, which few Inuvialuit or museum professionals have ever seen or studied (Figure 2; Loring et al. 2010; Morrison 2006). The MacFarlane Collection is not eligible for repatriation under NAGPRA because the Inuvialuit community resides in Canada, making alternative forms of access to the collection a priority.

Our project seeks to generate and document Inuvialuit and curatorial knowledge about the objects in the MacFarlane Collection, with a wider view to sharing and disseminating this knowledge in the Inuvialuit, anthropological, and interested public communities. We have conducted extensive interviews with Inuvialuit Elders and knowledgeable community members, held workshops with Inuvialuit students and teachers in several Western Arctic communities, and carried out material culture research on the objects in the collection at the Smithsonian. These research activities have culminated in our recently launched website—www.inuvialuitlivinghistory.ca—which brings together curatorial descriptions of the collection, Inuvialuit knowledge of objects, media documenting our trip to the Smithsonian in 2009, and subsequent community projects related to the objects (Figure 3) (Inuvialuit Cultural Resource Centre 2012). The website represents the MacFarlane Collection as a “Living Collection”—*Inuvialuit Pitqusiit Inuuniarutait* in Inuvialuktun—because the project has spurred many Inu-

valuit to begin discussing, re-creating, and using these historic objects in their everyday lives (Hennessy et al. 2012).

The Inuvialuit Living History Project has depended on collaboration between team members, partners, and funders. We are particularly supported in our work by relationships to Inuvialuit Cultural Resource Centre, the Smithsonian's Arctic Studies Center, the Museums Assistance Program, Parks Canada, the Prince of Wales Northern Heritage Centre, the School of Interactive Arts and Technology and the Intellectual Property in Cultural Heritage (IPinCH) Project, both housed at Simon Fraser University. The present forum has created an opportunity for our team to collectively evaluate what processes and elements attend a successful collaborative research project, to identify the challenges that we continue to face, and to assess the response to our project so far. To this end, we developed a series of general questions about our project and interviewed our project team members, who comprise the authors of this paper. Below, we present a summary of responses rather than individual quotations due to the brevity of this article.

What do you think has made our project successful?

All of our team members noted the diverse strengths of individuals as a main contributor to the success of our project. Our team came together with a shared interest to learn more about the MacFarlane Collection, particularly from an Inuvialuit perspective, and to share this knowledge with the broader Inuvialuit community. Our team members have been dedicated to this purpose, and have taught one another a great deal about creating products and media that are appropriate, relevant, and interesting to the community (Lyons et al. 2011). While our team comes from different personal and professional backgrounds, we have significant overlap in skills and interests. These interests include community-based heritage, digital repatriation, material culture research, and anthropological and museum policy and prac-

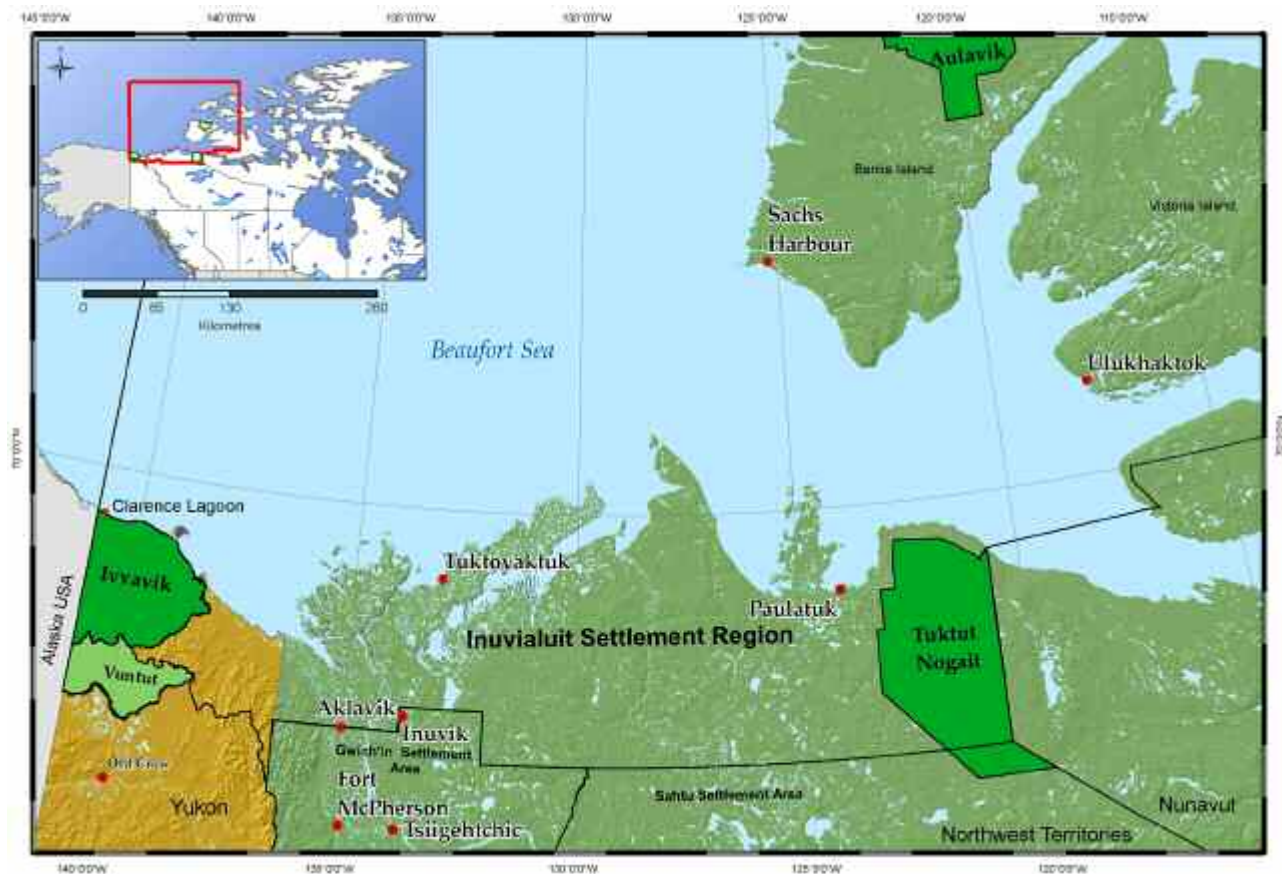


Figure 1. Communities of the Inuvialuit Settlement Region in the Canadian Western Arctic.

tice. Team members have provided access to their professional and community social networks, knowledge of funding opportunities, and technical resources. This combination of knowledge, perspectives, skills and resources has aided our work immeasurably, and allowed us all to do collectively what we could not achieve individually.

Another element of our project's success is our deliberate attention to group process (Lyons 2011, forthcoming). We have made effective communication a priority for our project team, and have created space for dialogue about all aspects of the project—our goals, how they are prioritized, and how we will achieve them. We discuss these issues on an ongoing basis as the project evolves. Part of our commitment to process involved setting the terms for our project team interactions, in the form of a project charter which specified individual and collective roles and responsibilities, and how we would resolve differences of opinion. The different perspectives of respective team members has led to a cross-fertilization of ideas and also raised important intellectual property questions related to access, control, and representation of Inuvialuit culture and ideas.

What have been the major challenges of the project?

Our major challenges have revolved around time and expense, and issues of control and meaningful community engagement. Northern projects are exceptionally expensive due to northern cost of living, large distances between communities, and air travel. While our project has represented a long-term, well-funded, and wide-ranging effort, we have still had to work hard to keep our goals reasonable and to stay focused on them. We have coordinated interviews, discussions, meetings, and workshops with Inuvialuit Elders, youth, and other community members and their organizations from many towns and hamlets. Elders are frequently busy with their families and their work on the land. Accommodating their schedules has been a significant priority for the team.

A particular challenge of producing a virtual exhibit is the amount of time required to manage and present the data collected. We have worked with both Inuvialuktun and English speakers, and have a great deal of raw data to transcribe, translate, and convert into a format suitable for the Inuvialuit Living History website. We have sought to reflect



Figure 2. Elder Albert Elias sporting a pair of snow goggles from the MacFarlane Collection (Kate Hennessy photo).

community goals and interests through the website, requiring extensive community consultation. This focus on local knowledge has required us to negotiate interpretive control with the Smithsonian establishment. We have also had to negotiate the requirements and constraints of major heritage institutions and funders.

Once launched, obtaining meaningful community feedback and input on the site's content has been an ongoing challenge, largely because teachers are busy, settlements are widespread, access to the internet is not universal, and not all of us live in the north to help with this work. We look ahead to the challenges of long-term hosting and preservation of digital information, and to ensuring that this valuable information will be accessible for generations to come. These factors have required us to be both creative and proactive in our consultation efforts, which are ongoing.

How has the project been received in the Inuvialuit and anthropological communities?

The Inuvialuit community has embraced this project with enthusiasm. Many Inuvialuit Elders once knew or used specific types of objects in the collection, and they are very interested in passing knowledge about these items, and the lifestyle they represent, to their grandchildren and great grandchildren. Inuvialuit hunters, seamstresses, and material culture specialists are actively studying objects in the collection and experimenting with making and using them. Seamstress Freda Raddi traced clothing patterns during our visit to the Smithsonian and sewed traditional boots for her grandchildren. One of our project team Elders, James Pokiak, carved a pair of snow goggles like those he'd seen in Washington for his daughter. Other project team members have had the opportunity to share our experiences with the MacFarlane Collection through lecture tours. After one com-

munity presentation, a young woman called Mervin Joe a hero for making the collection accessible to Inuvialuit people. Other cultural communities have been inspired by our work and talked about pursuing the same kind of relationships with their ancestral collections. The tremendous interest in the website within the Inuvialuit community engendered considerable impatience for its completion. This is one of very few online projects representing Inuvialuit culture, and the community is anxious to use and circulate resources such as the virtual exhibit, lesson plans, and interactive place name maps.

Our project has also sparked interest in the archaeological and anthropological communities. The project has been widely presented and discussed in archaeological venues and meetings. Our relationship to the IPinCH Project, an international network of cultural heritage scholars and local practitioners, has provided a forum for critical discussions of community-based practice and intellectual property issues, as have other opportunities to present the project, such as the workshop "After the Return: Digital Repatriation and the Circulation of Indigenous Knowledge" at the Smithsonian's National Museum of Natural History in January 2012 (Christen et al. 2012). The launch of the Inuvialuit Living History website has led to many requests for information from scholars and communities worldwide about our work, methods, and deliverables.

Conclusion

Contemporary archaeology and ethnology are increasingly characterized by new approaches to the study of material culture, and by cooperative working relationships across cultural and disciplinary borders (Lyons forthcoming). Through the Inuvialuit Living History Project, we have sought to engage with a collection of ancestral objects and to share this knowledge in its source community. We have been very encouraged by the excitement with which Inuvialuit are re-creating and using these objects in a modern context. Community interest is also spurring us towards archaeological investigations at the Fort Anderson trade post, and mapping Inuvialuit knowledge and stories about the Anderson River landscape.

For our research team, the Inuvialuit Living History project has represented a collaborative process, and a final product that we are proud of; however, we also see the website as a beginning, more than an end in itself. The digital platform that we have developed to show the MacFarlane Collection and its significance in Inuvialuit communities is designed for ongoing contributions and contextualization with local knowledge and media documentation. Our challenge will be to sustain the momentum of the project into the future and for our group to persist in the self-conscious negotiation of group priorities, responsibilities, and ethical research practices.

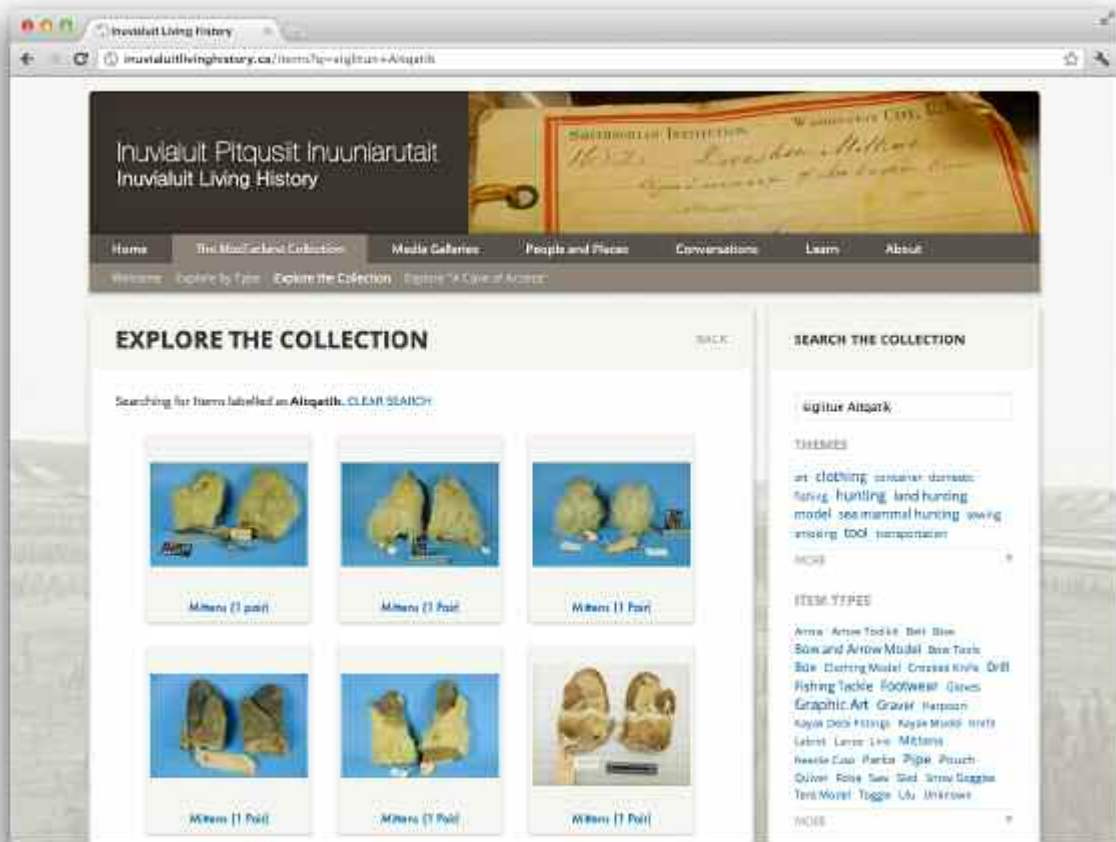


Figure 3. Search page from the Inuvialuit Living History website.

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SHARED LIVES

A COLLABORATIVE PARTNERSHIP IN ABORIGINAL AUSTRALIA

Claire Smith and Gary Jackson

Claire Smith and Gary Jackson are affiliated with the Department of Archaeology, Flinders University, GPO Box 2100, Adelaide. S.A. 5001. Australia, and may be reached at claire.smith@flinders.edu.au and gary.jackson@flinders.edu.au respectively.

This paper ruminates on the collaborative partnership that we have developed with the Barunga, Wugularr, Manyallaluk and Werenbun communities in the Northern Territory, Australia, over the last two decades. We use “Barunga” as a shortened term to refer to all of these communities, as we are usually based at Barunga. We have structured the paper around points of change to give a cumulative sense of how our collaborations have developed over time.

The communities that we work in are located in a remote area of northern Australia (Figure 1). The populations of these communities are overwhelmingly Aboriginal, and range from 35 people at Werenbun (Rachael Willika personal communication 2012) to 511 at Wugularr (Australian Bureau of Statistics 2012). The only non-Aboriginal people living in these communities are teachers, nurses and administrators, met almost invariably in formal situations. The first language in the region is Kriol, a creole that emerged during the contact period of the early to mid twentieth century (Smith 2004). Many community people are not fluent in English and are shy or reticent in their interactions with non-Aboriginal people. The economic status of communities is very low, with under-employment or unemployment of around 50 percent and subsequently low incomes (Australian Bureau of Statistics 2012), low levels of car ownership, infant mortality rates that are 1.8 to 3.8 times as high as those for non-Indigenous children and life expectancies that are 10–12 years shorter than those of non-Indigenous Australians (Australian Indigenous HealthInfoNet 2012; Council of Australian Governments 2011).

Starting Point: First Evening

We went to Barunga in 1990 to conduct Smith’s (1996) doctoral research on the social and material variables of an Aboriginal artistic system. The first evening we agreed to drive a group of eight people forty kilometers to the neighboring

community of Beswick. We agreed to do this partly because we wanted interaction with local people, and partly because we feared that no one would want to talk to us, that we would not be able to collect rich ethnographic data. The decision to drive people to Beswick was a mistake. It was the equivalent of putting a flashing neon light over our caravan, with the sign “taxi” or “free taxi,” and for many months we were given “humbug” at all hours of the day and night by people who wanted us to drive them somewhere, sometimes hundreds of kilometers away.

This dilemma did not dissipate until we were accepted into the extended family of senior lawman, Peter Manaburu and his wife, Lily Willika. Then, at Peter’s suggestion we sent people to get permission from him, since he was “boss” for our car. We found ourselves under the auspices of a senior lawman, and the problem was resolved.

Point of Change: From Researchers and ‘Informants’ to Family

We started with a clear focus on Smith’s doctoral research on Aboriginal art (Smith 1996). Though he is an anthropologist now, Jackson started his academic foray as an English major accompanying Smith on her field trips, where he thought he could just stay in the background. Wrong! Smith would ask the old men questions and they would sit facing Jackson and give him the answers as though Smith wasn’t present. So we learned that there was no right to knowledge and that the transition of knowledge was determined by gender. Moreover, it seemed that our Aboriginal teachers saw Jackson’s casual or reluctant attitude to research as an attribute and so he was taught much without having to question people. The best teaching occurred when people were in the bush, which acted as a mnemonic that made questions unnecessary.

Gary Jackson’s main teacher was Peter Manaburu. Over the years these two became best friends. Manaburu lived with



Figure 1. Location of Study Area.

Smith and Jackson whenever they were in the community and he stayed in their home away from the community for close to a year at a time. One difficulty of this situation is that you end up with middle class researchers talking with upper class Aboriginal teachers, so there is a class bias in the data. Also, the responsibilities of family means a lot of extra effort, as with any family: "Could you drive me to visit family in hospital tonight?" where the hospital is a 160 kms round trip. Or, "We have to take sticks and bash up that other family tomorrow because they went to the police about your nephew injuring one of their family." These costs and benefits come together as part of the package of collaboration.

Peter recently walked away. That is, he was called to join familiar spirits in the countryside and disappeared. No footprints are ever found as these "clever men" walk above the ground and the local police called Jackson to fly up to help in the search. Jackson spent two weeks searching the local bush in vain. Initially, he was very keen to find Manaburu but after a while he wondered what he would do if he did discover him in a cave. Manaburu was doing what was right and had told family members of a spirit wife, son, and daughter who lived in a cave and were presumably helping him on this adventure. Jackson is now pleased he did not have to decide what to do. Manaburu has never been found.

Point of Change: Jimmy Becomes Lamjerroc

When conducting Smith's doctoral research we worked closely with the senior traditional owner, Phyllis Wiyinjerroc. Towards the end of a year of living in the community, after one interview she pointed to our 18-month-old son and said "What's his name?" We gave his name, Jim, but she said "No, his Aboriginal name." We gave his "skin" name, as part

of the kinship system, Gela. She said "No, his Aboriginal name" ... and when we continued to look blank she said "His name is Lamjerroc, the same as my father."

At the time we were pleased, but we had no real idea of the honor we had been awarded. For the rest of her life, Phyllis demonstrated her acceptance of us to family, community, and strangers by reminding people that she had named our son after her father. She also told Lamjerroc that when he grew up he had to look after her people. He is the only person alive with that name. Looking back with the hindsight of twenty years, we understand that the naming of our son was a way of tying us to the community with gossamer threads that transcend generations.

Point of Change: From One-way Research to Two-way Education

We started off conducting research into Aboriginal culture and society. Informed by the interests of the community, however, this developed into a philosophy of two-way education, in which knowledge is exchanged equally between members of two cultural groups: Aboriginal people teach about their culture and heritage at the same time that they learn about non-Aboriginal culture and heritage, and about the practices of non-Aboriginal communities.

We have conducted many field schools on Jawoyn lands, giving students an opportunity to undertake archaeological work while experiencing our style of working with Aboriginal communities. The field schools include national and international scholars, and students in these field schools have had an opportunity to learn from people such as Martin Wobst, Bob Paynter, Heather Burke, Sven Ouzman, George Nicholas, Jane Balme, Ines Domingo, Didac Roman, Paul Faulstich, Graeme Ward, Cristina Lanteri, Alejandro Haber, Carol Ellick, and Joe Watkins. Many of these scholars developed their own relationships with members of the community. Community people travelling to other parts of Australia and to South Africa, France, the UK, and the USA have cemented these national and international relationships.

A number of our Honors students have conducted their own research in the region, most recently Ralph (2012) and Slizankiewicz (2012). Some of our students have gone on to become strong community researchers themselves, and all have developed their own styles of collaborating with Aboriginal people, for the particular situations in which they find themselves.

Point of Change: Manyallaluk Comes to Adelaide

In January 2011 Rachael Willika, the daughter of Lily Willika, phoned us and told us that she was coming to live with us, and that she would be bringing two of her children and a



Figure 2. Peter Manaburu and Gary Jackson, Barunga, 2005.

grandson. She was living in Manyallaluk, a community of 105 people (Australian Bureau of Statistics 2012), and wanted to come “south” to get a better education for her children. We turned one living room of our house into a bedroom for Rachael and the children. In the middle of the year, another grandchild joined her, so there were four children. In early 2012, two more children joined her and Rachael moved into a house of her own, a short distance from our house. We see each other on a day-to-day basis.

Rachael’s actions are exceptional. Normally, community people do not attempt to live beyond the safe perimeters of family. The transition to living in a non-Aboriginal culture without the immediate support of family is challenging and most community people assume that defeat is inevitable. Rachael has demonstrated that it is possible to live away from the community, and to prosper in this situation. Over the last 18 months the children have learnt to speak English well, and they now go to school every day (Figure 2). During this period, Rachael obtained her driver’s licence, passed the Finders University Foundation Course, and became the first Jawoyn person to enroll in a university course.

Rachael’s experience of living in “mununga” (European) society is a mirror to our own fieldwork with her mother and stepfather. As Lily and Peter helped us to understand the cultural practices of their society, so we have helped Rachael to understand the cultural practices of our society. The achievement of which we are most proud is that we were able to help Rachael and the children succeed in their forays into a non-Aboriginal world.

Innovations emerge from collaboration. Our proximity to Rachael allowed the three of us to develop new learning together. By pooling our respective knowledge we were able to identify barriers and enablers to Aboriginal people achieving success in a range of contexts—school, university, dealing with government—and to develop strategies that could be used to support Aboriginal success.

A practical outcome of this collaborative partnership is the development and trialling of a new method of training for Aboriginal communities in remote and regional areas, in which skills are transferred from one family member to another. This approach means that skills gap training is delivered with minimal embarrassment, and that it is cultural and linguistically literate and embedded in lifetime relationships. The critical innovation of this project is recognizing that Aboriginal people who have skills are uniquely placed to transfer their skills to other Aboriginal people—they have cultural and language literacy, know the limitations of family members, and have lifetime relationships of trust.

The benefits of a family-based approach to training are twofold: teaching increases the confidence of those who teach at the same time that it imparts knowledge and skills to those who seek them. If successful, this project will form a first step in a very substantial contribution to the Australian Government priority of Closing the Gap of Indigenous disadvantage (Australian Indigenous Health *InfoNet* 2012; Council of Australian Governments 2011), by establishing the basis of a new approach to training, education and employment in remote and regional communities. It could constitute a genuine breakthrough in Indigenous training, education, and employment. This program would not have been envisioned if Rachael had not moved to Adelaide.

Discussion

Things have changed since our first evening at Barunga. Our ideas about research have changed, we have changed, and the people we work with have changed.

What have we learned over the last 20 years? We have learned that it is important for a researcher to become part of a family in the community, and that this brings responsibilities and occasional difficulties as well as benefits. We found that we could not work with people without becoming engaged in their struggles, and using our skills for their purposes. We have learned that what you write has an impact at a community level, and that having a long-term commitment to a group and being patient will provide the best quality research results. We have learned that change is possible, that it is undertaken in small steps, and that small differences are large differences when compared to the nothing that would have happened otherwise. In this process, we have become a living archive for the history of the community, and our home and office a repository of historical and cultural knowledge, photos and articles.

Our collaborative partnerships with people at Barunga started with a clear focus on Smith’s doctoral research into Aboriginal art, but developed into something much richer, with the capacity to make a difference to the lives of the people with whom we work, and to deepen our own lives in unex-



Figure 3. From Left: Kayla Willika, Rachael Willika, Claire Smith, Samuel Willika, Jessalina Rockman, Marlene Lee, Jasmine Willika, Adam McCale, Cristina Lanteri, Gary Jackson, Adelaide, 2012.

pected ways. Our journey is documented in the products from our research and teaching, which range from books (Smith 2004), scholarly papers (Jackson and Smith 2005), and theses (Ralph 2012; Slizankiewicz 2012; Smith 1996) to opinion pieces in national media (Smith and Jackson 2008a), community publications and reports (Smith et al 1995; Jackson and Smith 2002), and submissions to government (Smith and Jackson 2008b).

We started off doing research about Aboriginal culture but ended up doing research for Aboriginal people. In the process, we changed from going to Barunga to do research to doing research so we could go to Barunga. Our situation today is one in which our personal futures and those of people in the community are entwined. Our collaborations are such that it is impossible to imagine separate lives, lives that not do intersect and enrich each other's.

Acknowledgments. This paper emerges from our collaborations with many, many people, and we thank them all. The photos produced here are published with the permission of the people who are in them and, in the case of Peter Manabaru, with permission from Rachael Willika and Peter's son Cedric Manabaru.

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2002 "A Good School with Good Teachers": *Educational Aspirations of Indigenous People in the East Katherine Region, Northern Territory*. Report for the Jawoyn Association Aboriginal Corporation, Northern Territory. Available from the Northern Land Council Library, Darwin.
- Jackson, Gary, and Claire Smith
2005 Living and Learning on Aboriginal Lands: Decolonising Archaeology in Practice. In *Indigenous Archaeologies: Decolonising Theory and Practice*, edited by Claire Smith and H. Martin Wobst, pp. 326–349. Routledge, London.
- Ralph, Jordan
2012 *Convenient Canvasses: An Archaeology of Social Identity and Contemporary Mark-Making Practices in Jawoyn Country, Northern Territory, Australia*. Honours dissertation, Flinders University, Adelaide.
- Slizankiewicz, Michael
2012 *Foot First. A Study of Regional Variation in Rock Art in Jawoyn Country, Northern Territory, Australia*. Honours dissertation, Flinders University, Adelaide.
- Smith, Claire
1996 *Situating Style: An Ethno-Archaeological Study of Social and Material Context in an Australian Aboriginal Artistic System*. Ph.D dissertation, University of New England, Armidale.
2004 *Country, Kin, and Culture: Survival of an Australian Aboriginal Community*. Wakefield Press, Adelaide.
- Smith, Claire and Gary Jackson
2008a *Income Management in the NT: Food for Taxis*. ABC Opinion On-line. Electronic document,
<http://www.abc.net.au/news/stories/2008/10/06/2382729.htm>, accessed June 21, 2012.
2008b *A Community-based Review of the Northern Territory Emergency Response*. Submitted to the Northern Territory Emergency Response Review Board. Electronic document,
<http://www.newcastle.edu.au/institute/research-institute-for-social-inclusion-and-wellbeing/risiw-team/conjoints/professor-claire-smith.html>, accessed June 21, 2012.
- Smith, Claire, Lily Willika, Peter Manabaru, and Gary Jackson
1995 Looking after the Land: the Barunga Rock Art Management Programme. In *Archaeologists and Aborigines*, edited by Iain Davidson, Christine Lovell-Jones and Robyn Bancroft, pp. 36–37. University of New England Press, Armidale.

CALL FOR AWARDS NOMINATIONS

The Society for American Archaeology calls for nominations for its awards to be presented at the 2013 Annual Meeting in Hawaii. SAA's awards are presented for important contributions in many areas of archaeology. If you wish to nominate someone for one of the awards, please send a letter of nomination to the contact person for the award. The letter of nomination should describe in detail the contributions of the nominee. In some cases, a curriculum vita of the nominee or copies of the nominee's work also are required. Please check the descriptions, requirements, and deadlines for nomination for individual awards. Award winners will receive a certificate. An award citation will be read by the SAA president during the annual business meeting, and an announcement will be published in *The SAA Archaeological Record*.

Book Award

Award Description: The Society for American Archaeology annually awards two prizes to honor recently published books. One prize is for a book that has had, or is expected to have, a major impact on the direction and character of archaeological research. The other prize is for a book that is written for the general public and presents the results of archaeological research to a broader audience. The Book Award committee solicits your nominations for these prizes, which will be awarded at the 2013 Annual Meeting of the SAA. Books published in 2010 or more recently are eligible.

Who Is Eligible to Submit Nominations or Apply for the Award: The Book Award committee solicits nominations for these prizes. Books published in 2010 or more recently are eligible. In the Scholarly Book Award category, the first author must be a member of the SAA, and all members receive the award. In the Popular Book Award category, all authors may be members or non-members of the SAA and all authors receive the award.

Nomination/Submission Materials Required: One copy of the nominated book must be sent to each member of the committee.

Nomination/Submission Deadline: December 2, 2012

Committee Contact Information: Nominators must arrange to have one copy of the nominated book(s) sent to each of the five members of the committee listed below. For further information, please contact Committee Chair Lisa LeCount.

Lisa LeCount, Chair
(llecount@as.ua.edu)
Department of Anthropology
19 ten Hoor Hall
University of Alabama
Tuscaloosa, AL 25487-0210
205-348-3733

Susan Toby Evans
(ste@psu.edu)
Anthropology
409 Carpenter Bldg.
Penn State U.
PA 16802-3404
814-865-2509

Evan Peacock
(peacock@anthro.msstate.edu)
Cobb Institute of Archaeology,
PO Box AR,
Mississippi State,
MS 39762
662-325-1663

Anne Underhill
(anne.underhill@yale.edu)
For regular mail:
Department of Anthropology
Yale University
PO Box 208277
New Haven, CT 06520-8277
For Fedex, DHL:
Department of Anthropology
Yale University
10 Sachem Street
New Haven, CT 06511
203-436-4258

Ruth Van Dyke
(rvandyke@binghamton.edu)
Department of Anthropology
Binghamton University – SUNY
Binghamton, NY 13902-6000
719-510-6755

Crabtree Award

Award Description: The SAA presents the Crabtree Award annually to an outstanding avocational archaeologist in remembrance of the singular contributions of Don Crabtree. Nominees should have made significant contributions to advance understandings of local, regional, or national archaeology through excavation, research, publication, site or collections preservation, collaboration with the professional community, and/or public outreach.

Who Is Eligible to Submit Nominations or Apply for the Award: Anyone may submit a nomination. The committee does not accept self-nominations. Awardees may be members or non-members of the SAA.

Nomination/Submission Materials Required: Nominators should submit a current curriculum vita, a letter of nomina-

tion, and letters of support.

Nomination/Submission Deadline: January 4, 2013

Committee Chair Contact Information: Patricia Gilman, Dept. of Anthropology, Univ. of Oklahoma, Norman, OK 73019; ph: (405) 325-2490; e-mail: pgilman@ou.edu

Dienje Kenyon Fellowship

Award Description: In honor of the late Dienje M. E. Kenyon, a fellowship is offered to support the research of women archaeologists in the early stages of their graduate training. An award of \$500 will be made to a student pursuing research in zooarchaeology, which was Kenyon's specialty. To qualify for the award, applicants must be in the early years of an M.A. or Ph.D. graduate degree program focusing on archaeology. Strong preference will be given to students in the first two years of their graduate program working with faculty members with zooarchaeological expertise.

Who Is Eligible to Submit Nominations or Apply for the Award: Female graduate students in archaeology are eligible to apply, with preference for students in first two years of training working with faculty members with zooarchaeological experience.

Nomination/Submission Materials Required: A submission for the Dienje Kenyon Fellowship is required to have (1) a statement of proposed research related to zooarchaeology, toward the conduct of which the award would be applied, of no more than 1,500 words, including a brief statement indicating how the award would be spent in support of that research; (2) a curriculum vita; and (3) two letters of support from individuals familiar with the applicant's work and research potential. One of these letters must be from the student's primary advisor, and must indicate the year in which the applicant began graduate studies. The statement of proposed research and curriculum vita should be sent as an email attachment in Microsoft Word to the committee chair. Letters of support should be e-mailed separately by the people providing them.

Nomination/ Submission Deadline: The statement and curriculum vitae should be sent as an email attachment in Microsoft Word. Letters of support should be e-mailed separately by the people providing them. Applications are due no later than December 15, 2012.

Committee Chair Contact Information: Barnet Pavao-Zuckerman, School of Anthropology; Univ. of Arizona, Tucson, AZ 85721; ph: (520) 626-3989, fax: (520) 621-2976; e-mail: bpavao@email.arizona.edu

Dissertation Award

Award Description: Members (other than student members) of SAA may nominate a recent graduate whose dissertation they consider to be original, well written, and outstanding.

Who Is Eligible to Submit Nominations or Apply for Award: Nominations must be made by non-student SAA members

and must be in the form of a nomination letter that makes a case for the dissertation. Self-nominations cannot be accepted. Awardees must be members of the SAA.

Nomination/Submission Materials Required: Nomination letters should include a description of the special contributions of the dissertation and the nominee's current address. Nominees must have defended their dissertations and received their Ph.D. degree within three years prior to September 1, 2012. Nominees are informed at the time of nomination by the nominator and are asked to submit one copy of the dissertation IN PDF FORMAT ON CD-ROM to the committee by October 15, 2012 (to be mailed to the committee chair). IF THIS FORMAT IS NOT POSSIBLE, PLEASE CONTACT THE CHAIR.

Nomination/Submission Deadline: October 15, 2012

Committee Chair Contact Information: Katina Lillios, Dept. of Anthropology; Univ. of Iowa; Iowa City, IA 52242; ph: (319) 335-3023; e-mail: katina-lillios@uiowa.edu

Douglas C. Kellogg Fund for Geoarchaeological Research

Award Description: The Douglas C. Kellogg Award provides support for thesis or dissertation research, with emphasis on the field and/or laboratory aspects of this research, for graduate students in the earth sciences and archaeology. Under the auspices of the SAA's Geoarchaeology Interest Group, family, friends, and close associates of Douglas C. Kellogg formed a memorial in his honor.

Who Is Eligible to Submit Nominations or Apply for the Award: Recipients of the Kellogg Award will be students who have an interest in (1) achieving the M.S., M.A. or Ph.D. degree in earth sciences or archaeology; (2) applying earth science methods to archaeological research and (3) pursuing a career in geoarchaeology.

Nomination/Submission Materials Required: The application should consist of a research proposal no more than three pages long that describes the research and its potential contributions to American archaeology, a curriculum vita, and two letters of support, including one from the dissertation chair that indicates the expected date of completion of the dissertation. Electronic submissions as pdfs sent to the committee chair are preferred.

Nomination/Submission Deadline: November 29, 2012

Committee Chair Contact Information: Sarah Sherwood; Environmental Studies Program; Sewanee: The University of the South; Sewanee, TN 37383; ph: (931) 598-1000; e-mail: sherwood@sewanee.edu

Excellence in Archaeological Analysis Award

Award Description: This award recognizes the excellence of an archaeologist whose innovative and enduring research has made a significant impact on the discipline. This award now subsumes within it three themes presented on a cyclical

basis: (1) an Unrestricted or General category (first awarded in 2001); (2) Lithic Analysis; and (3) Ceramic Analysis. The 2013 award will be presented for *Excellence in Archaeological Analysis: General Category*.

Who Is Eligible to Submit Nominations or Apply for Award: Any SAA member may nominate an individual for this award. Awardees must be members of the SAA.

Nomination/Submission Materials Required: Nominators must submit a letter that describes the nature, scope, and significance of the nominee's research and analytical contributions, as well as the nominee's curriculum vita. Support letters from other scholars are welcome, as are any other relevant documents. Please send submissions to the committee chair.

Nomination/Submission Deadline: January 4, 2013

Committee Chair Contact Information: Anna Prentiss; Dept. of Anthropology; Univ. of Montana; Missoula, MT 59812; ph: (406) 243-6152, fax: (406) 243-4918, email: anna.prentiss@umontana.edu

Excellence in Cultural Resource Management Award

Award Description: This award will be presented to an individual or a group to recognize lifetime contributions and special achievements in the categories of program administration/management, site preservation, and research in cultural resource management. It is intended that at least one award will be made each year and the category will rotate annually. **The 2013 award will recognize important research contributions in cultural resource management.** The candidates may include individuals employed by federal, state, or local government agencies. This category is intended to recognize long-term, sustained research efforts and may encompass more than one site.

Who Is Eligible to Submit Nominations or Apply for the Award: Any professional archaeologist may submit a nomination for this award. Awardees may be members or non-members of the SAA.

Nomination/Submission Materials Required: Nominators must submit a curriculum vita along with any relevant supporting documents. All nomination materials are to be submitted electronically.

Nomination/Submission Deadline: January 10, 2013

Committee Chair Contact Information: Linda Mayro; Pima County Cultural Resources and Historic Preservation Office; Pima County Public Works Center; 201 North Stone Avenue, 6th Floor; Tucson, AZ 85701; ph: (520) 740-6451; email: Linda.Mayro@pw.pima.gov

Excellence in Latin American and Caribbean Archaeology Award

Award Description: The Award for Excellence in Latin Amer-

ican and Caribbean Archaeology will be presented annually to an individual who has made a lasting and significant contribution to the practice of archaeology and/or to the construction of archaeological knowledge in Latin America or the Caribbean. In selecting the recipient of this award, the committee will pay particular attention to the cultural context in which the nominee works and to the different pathways to creating and promoting excellence in Latin American and Caribbean archaeology. The award is open to individuals at any point in their careers.

Who Is Eligible to Submit Nominations or Apply for Award: Any SAA member may nominate an individual for this award. Awardees must be members of the SAA.

Nomination/Submission Materials Required: Nominators are required to submit (1) a nomination letter, (2) a detailed curriculum vita of the nominee that includes a complete bibliography of local and international research publications, (3) brief description of the academic and/or cultural impact of research, publications and other relevant activities and (4) at least two supporting letters; one supporting letter should be from a Latin American or Caribbean archaeologists and one supporting letter should be from a Latin Americanist/Caribbeanist. All nominations and supporting documents are requested in PDF format to be sent via email to the committee chair.

Nomination/Submission Deadline: January 4, 2013

Committee Chair Contact Information: Adolfo Gil; Museo de Historia Natural de San Rafael; Parque Mariano Moreno s/n; San Rafael; Mendoza, Argentina, 5600; p: 0054-260-154632558; email: agil@mendoza-conicet.gov.ar and/or adolfogil@arqueologiamendoza.org

Excellence in Public Education Award

Award Description: This award acknowledges excellence in the sharing of archaeological information with the public. The award is conferred on a rotating, 3-year cycle of categories. The category for 2013 is the Media Category.

Who Is Eligible to Submit Nominations or Apply for the Award: Any member of SAA may submit a nomination file, although awardees are not required to be members of the SAA.

Nomination/Submission Materials Required: Nominators will work with the Chair to assemble a nomination file that will include (1) the nomination form and (2) a formal letter of nomination that identifies the nominee and summarizes their accomplishments. These accomplishments should be contextualized by addressing the following types of questions: How does it fit within the practice of public education and archaeology? What is the impact on relevant publics beyond the discipline of archaeology (general public, special interest groups, pre-collegiate or non-traditional students, others)? In addition, the nomination file should include a copy (or samples) of the specific achievement and supporting materials that document results. This material should clearly demonstrate the case being made in the nomination

letter. For example, supporting evidence might document the impact of a specific program in terms of the numbers of the public involved, personnel qualifications and deployment, the frequency or longevity of programs offered, formal evaluation results, and/or feedback from the audience. Endorsement from secondary nominators are welcomed (please, no more than three). Prior nomination does not exclude consideration of a nominee in subsequent years. Designers of programs or products may nominate their own work. **Electronic submissions are encouraged.** If a nomination package is mailed, six (6) copies of the nomination package (including supporting materials) must be submitted.

Nomination/Submission Deadline: January 10, 2013

Committee Chair Contact Information: Jeanne Moe, National Project Archaeology Lead, 2-128 Wilson Hall, Montana State University, Bozeman, MT, 59717, ph: 406-994-7582, email: jmoe@montana.edu

Fred Plog Fellowship

Award Description: An award of \$1,000 is presented in memory of the late Fred Plog to support the research of a graduate student with ABD who is writing a dissertation on the North American Southwest or northern Mexico or on a topic, such as culture change or regional interactions, on which Fred Plog did research.

Who Is Eligible to Submit Nominations or Apply for the Award: All student members of SAA in good standing who are ABD by the time the award is made at the Annual Meeting of the SAA are eligible to apply for the award.

Nomination/Submission Materials Required: The application consists of (1) a research proposal no more than three pages long that describes the research and its potential contributions to American archaeology, (2) a curriculum vita, and (3) two letters of support, including one from the dissertation chair that indicates the expected date of completion of the dissertation.

Nomination/Submission Deadline: December 9, 2012

Committee Chair Contact Information: Wesley Bernardini, Dept. of Sociology and Anthropology, University of Redlands; Redlands CA 92373; ph: (909) 748-8707; fax: (909) 335-5307; e-mail: Wesley_Bernardini@redlands.edu

Fryxell Award for 2014

Award Description: The Fryxell Award is presented in recognition for interdisciplinary excellence of a scientist who need not be an archaeologist, but whose research has contributed significantly to American archaeology. The award is made possible through the generosity of the family of the late Roald Fryxell, a geologist whose career exemplified the crucial role of multidisciplinary cooperation in archaeology. The award cycles through zoological sciences, botanical sciences, earth sciences, physical sciences, and general interdisciplinary studies. The 2014 Fryxell Award will be in the area of

physical sciences. The award consists of an engraved medal, a certificate, an award citation read by the SAA president during the annual business meeting, and a half-day symposium at the Annual Meeting held in honor of the awardee.

Who Is Eligible to Submit Nominations or Apply for Award: Any professional archaeologist may submit nominations for this award. Nominees must be SAA members by the time of their nomination.

Nomination/Submission Materials Required: Nominators must submit a letter that describe the nature, scope, and significance of the nominee's contributions to American archaeology, as well as the nominee's curriculum vita. Support letters from other scholars are helpful. Four to six are suggested. Please email submissions in pdf format to the committee chair.

Nomination/Submission Deadline: February 4, 2013

Committee Chair Contact Information: Michael Glascock, Archaeometry Laboratory, Department of Archaeology, University of Missouri Research Reactor, 1513 Research Park Drive, p: (573) 882-5270, fax: (573) 882-6360, email: glascockm@missouri.edu

Gene S. Stuart Award

Award Description: An award is made to honor outstanding efforts to enhance public understanding of archaeology, in memory of Gene S. Stuart (1930-1993), a writer and managing editor of National Geographic Society books. The award is given to the author of the most interesting and responsible original story or series about any archaeological topic published in a newspaper or magazine.

Who Is Eligible to Apply or Submit Nominations: The award is given to single or multiple authored articles, stories, or series of stories published in newspapers or magazines. The emphasis is on publications available to the general public (rather than limited distribution newsletters), and online publications are not excluded. The award honors good writing that brings awareness of archaeology to the public eye. Nominations can be submitted by authors themselves, by magazine/newspaper editors, or by readers. Authors or newspaper editors will work with the committee chair to assemble and submit a nomination file. Awardees may be members or non-members of the SAA.

Nomination/Submission Materials Required: Nominators will work with the committee chair to assemble a nomination file that will include the nominated article, which should have been published within the calendar year of 2012. An author/newspaper editor may submit no more than five stories or five articles from a series. Nomination packets may be submitted electronically as PDFs via email to the committee chair. If submitting hard copies, six copies of each entry must be submitted by the author or an editor of the newspaper.

Nomination/Submission Deadline: January 18, 2013

Committee Chair Contact Information: Kirk D. French;

Dept. of Anthropology; The Pennsylvania State Univ.; University Park, PA 16802; ph: 814-865-1142, fax: 814-863-1474, email: kirkdfrench@psu.edu

Lifetime Achievement Award

Award Description: The Lifetime Achievement Award is presented annually to an archaeologist for specific accomplishments that are truly extraordinary, widely recognized as such, and of positive and lasting quality. Recognition can be granted to an archaeologist of any nationality for activities within any theoretical framework, for work in any part of the world, and for a wide range of areas relating to archaeology, including but not limited to research or service. Given as the Distinguished Service Award between 1975 and 2000, it became the Lifetime Achievement Award and was awarded as such for the first time in 2001.

Who Is Eligible to Submit Nominations or Apply for the Award: Any professional archaeologist may submit nominations for this award. Nominees must be SAA members by the time of their nomination, and the strongest nominees will have made significant contributions to both the organization and to the range of archaeological practice that in which SAA members participate.

Nomination/Submission Materials Required: Nomination letters should include a letter of nomination, outlining the nominee's lifetime accomplishments, as well as a curriculum vita of the nominee. Additional letters of support are not required, but the strongest nominations, historically, have included a minimum of five (5) letters of support; some have had more than fifteen (15) letters of support. Nominators are required to collate all nomination materials into one single Adobe Acrobat pdf document to be emailed to the committee chair, Miriam Stark.

Nomination/Submission Deadline: January 4, 2013

Committee Chair Contact Information: Dean Snow, 409 Carpenter Building; Pennsylvania State Univ.; University Park, PA 16802; ph: (814) 865-2937; fax: (814) 863-1474; e-mail: drs17@psu.edu

Student Paper Award

Award Description: This award recognizes an outstanding student conference paper based on original research.

Who Is Eligible to Submit Nominations or Apply for the Award: All student members of SAA in good standing whose paper abstract has been accepted by the SAA for the upcoming annual meeting are eligible to participate. All co-authors must be students, and the first author must be a member of the SAA. All co-authors receive the award.

Nomination/Submission Materials Required: The paper abstract must be accepted by SAA for the upcoming annual meeting. All co-authors must be students, and the first author must be a member of the SAA. The paper must be double-spaced, with 1-inch margins and 12-pt font. Please do

not submit raw data unless they are to be presented as part of the paper itself. An average 15-minute paper is approximately 8 pages long (double-spaced, not including references cited). Any paper longer than this will be docked points. The student must submit **electronic** copies of 1) a separate title page with name and full contact information; (2) the conference paper containing slide call outs and references; and (3) pdfs of all PowerPoint slides, with numbered captions, to be used in the oral presentation. Please DO NOT put your name anywhere besides the cover sheet so that your paper may be reviewed anonymously by the committee. Please send submissions to the committee chair. The student must have a faculty or supervisory sponsor review the paper before the student submits it to the Student Paper Award Committee. The faculty/supervisory sponsor must send an email to the submission address at the time of paper submission saying that he/she has read and approved the paper being submitted.

Nomination/Submission Deadline: March 1, 2013

Committee Chair Contact Information: Mary Ann Levine; Dept. of Anthropology, Franklin and Marshall College; Lancaster PA 17604; ph: (717) 291-4193; fax: (717) 358-4500; e-mail: maryann.levine@fandm.edu

Student Poster Award

Award Description: This award acknowledges the best student presentation of archaeological research in poster sessions. Student posters will be evaluated as electronic submissions made directly to the Student Poster Award committee.

Who Is Eligible to Apply or Submit Nominations: All student members of SAA in good standing whose poster abstract has been accepted by the SAA for the upcoming annual meeting are eligible to participate. All co-authors must be students, and the first author must be a member of the SAA. All co-authors receive the award.

Nomination/Submission Materials Required: The poster abstract must be accepted by SAA for the upcoming annual meeting. All co-authors must be students, and the first author must be a member of the SAA. The Student Poster Award committee evaluates the originality and significance of student research presented in the poster as well as visual aspects such as graphics and design. The completed poster must be submitted to the Poster Award Committee Chair as an electronic entry in pdf form by the submission deadline. No late submissions will be accepted.

Nomination/Submission Deadline: March 1, 2013

Committee Chair Contact Information: M. Kathryn Brown; Dept. of Anthropology, Univ. of Texas at San Antonio; San Antonio, TX, 78249; ph: (210) 458-6761; email: kathryn.brown@utsa.edu.

WILLIAM L. RATHJE

1945-2012

Bill Rathje was one of the most conceptually and practically innovative of modern American archaeologists. His Tucson Garbage Project in the 1970s combined the methods of sociology and archaeology to produce a famous study of what people bought and later threw away, and how that differed from what they said they did.

He began professional life as a Maya archaeologist, earning his doctorate under Gordon R. Willey at Harvard in 1971 with a study of burial patterns that suggested decreasing social mobility as Classic Maya civilization became more complex and class-structured. This was followed by a project on the island of Cozumel, jointly directed in 1972–73 with Jeremy A. Sabloff, studying ancient Maya trade patterns. Rathje had by then returned to his *alma mater* at the University of Arizona, where he taught from 1971 until his retirement.

Cozumel had been a noted pilgrimage shrine of Ix Chel, the moon goddess, at the time of Spanish contact, and also a trading emporium off the coast of Yucatan. Rathje and Sabloff wanted to find out whether it was a “trading port”, where normal maritime commerce occurred, or a “port-of-trade,” a locus where powerful and otherwise hostile polities could meet on neutral ground for mutual benefit.

The results were ambiguous, although much evidence of trading installations was found, but one striking thing was that Cozumel had no massive temples or large towns. Another, which struck Rathje strongly, was that almost everything they were finding out was from material discarded by the ancient Maya.

It was the Tucson Garbage Project, begun in 1973 and running for three decades, that made him famous. It was a logical development from collecting ancient Maya rubbish: but now modern trash was collected from certain census tracts in Tucson by the city authorities, sorted on tables behind the university’s football stadium by Rathje’s student team, and then correlated with sociological information from the census for each tract and from doorstep interviews asking about purchasing habits.

What Rathje was testing, with numerous student volunteers learning “the archaeology of us,” was whether assumptions that wealthier residents would be purchasing higher-end products (as evidenced by discarded wrappings and containers) were correct. Rathje’s team found significant differences from these expectations: the rich bought expensive foods and drink, and used them up. Lower down the social scale, economic pressures and advertising often induced people to buy in bulk to get discounts, and then found they had spoiled food that had to be thrown away. Sometimes poor families bought unexpectedly expensive items, and sometimes threw them away unused. Almost all levels of society underreported the amount of alcohol they bought and drank. Households that claimed to subscribe to high-end magazines such as *Foreign Affairs* in “front-door” interviews were putting out *Hustler* with the trash, Rathje once reported.



From Tucson’s garbage (and similar projects spawned in other American cities), Rathje moved on to investigating landfill, the ultimate destination of rubbish: using a huge bucket auger to cut vertical sections through the layers of fill, he controverted numerous aspects of conventional wisdom. Instead of

decomposition, he found perfectly preserved hot dogs and salads, legible newsprint decades old, and much less polystyrene and disposable nappies than Americans believed contributed to waste. This led to a popular book, *Rubbish! The Archaeology of Landfills* (1992, with Cullen Murphy)

The data on food waste aroused the interest of the meat industry, and Rathje found himself courted by corporations: his nickname among students was “Uncle Meat.” Both U.S. Government agencies, notably the Department of Agriculture, and state and city authorities—the latter as far away as Australia—put grant money into Rathje’s garbage studies: he had shown how archaeological thinking could help to tackle modern problems of over-consumption and waste of resources.

—Norman Hammond

DANIEL E. SHEA

1941-2012

Dan Shea, professor of anthropology at Beloit College, died of a heart attack on June 19, 2012, while leading a Beloit College field school in Iquique, Chile.

Dan was born in Oshkosh, Wisconsin, on November 5, 1941. He earned his bachelors (1963), masters (1968), and doctorate (1969) degrees in anthropology from the University of Wisconsin-Madison. He was a student of Donald E. Thompson and conducted his thesis research at Huanuco Pampa and Wari-wilka in the central highlands of Peru.

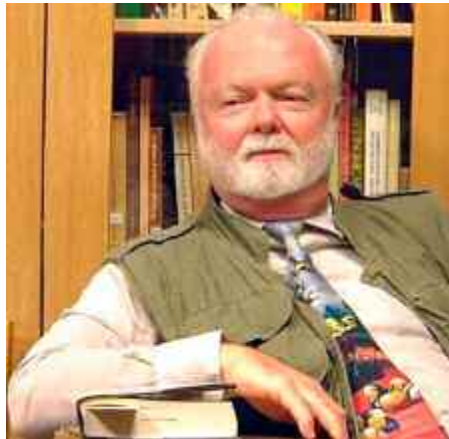
Dan taught at Beloit for his entire career, handling introductory and advanced archaeology courses as well as courses on contemporary peoples of Latin America, Precolumbian art and architecture, the history of anthropology, quantitative methods, senior seminars, and special topics. Students especially enjoyed his field anecdotes, his participation in Anthropology Club events, and his famed lectures on Moche sex pots.

South American archaeology was Dan's constant focus and passion. In the 1980s he collaborated with William Denevan on studies of prehistoric settlement and agricultural terracing in southern Peru. In 1992, Dan and Mario Rivera designed and co-directed the Atacama Field School in northern Chile. Over the next 20 years, the field schools received over 100 students, many of them today's professionals. The field schools surveyed and excavated extensively in the Tarapacá region and focused for many years on the site of Ramaditas. Fieldwork also focused on shell mounds and megafauna finds as well as historic mining-related sites in the Taltal, Pisagua, and La Serena areas.

Dan's position as research associate at Beloit's Logan Museum of Anthropology helped him integrate collections into his teaching and helped the museum with collections research and exhibit development. Dan also served as research curator for the Museum of the Red River (Idabel, OK), directed by his former student Henry Moy. There, in addition to providing information on specific objects, Dan worked with area college students in material culture studies and provided curatorial assistance for major exhibits featuring Andean material. He planned to spend more of each year with the museum in anticipation of easing into retirement. He was to begin work

in 2012 on *Contact America!*, an exhibit featuring Aztec, Maya, and Inka material.

Dan published in both Spanish and English on South American archaeology and population history as well as statistical methods and the history of Beloit's archaeological field schools. He received NSF grants to support South American fieldwork and regularly presented at regional, national, and international meetings. An advocate of historic preservation, Dan served for many years on the Beloit Landmarks Commission.



Colleagues, friends, and former students miss Dan's dry wit and encyclopedic knowledge of anthropology. Departmental colleague Rob LaFleur has always told his students that Dan embodied the history of anthropology—he read everything and was interested in everything.

English professor Tom McBride says, "No one blended Dan's ferocious if quiet brilliance with such a droll sense of humor and pervasive, gentle kindness. He was a real character: intellectual, hunter, digger, student of popular culture, raconteur, and all around laconic good guy."

Dan had a tremendous capacity for capturing the essence of life. Through his quiet, thoughtful, and, at the same time, passionate personality, he inspired young people and helped them gain confidence. Teaching from the heart, he would spend long hours instructing students in the field, never complaining because of the hot weather, the adversity of the environment, or the long work hours. He was a good man, a first class friend, an ardent worker, and an excellent teacher about life.

Dan is survived by his wife, Jennifer, son, James Shea, daughter, Genevieve Shea, granddaughter, Lucy Carney, along with two sisters and many nieces, nephews, and cousins. With the approval of the family, a scholarship fund has been set up in Dan's honor. To make a gift to the Dan Shea Memorial Scholarship visit Beloit College's online giving form, select "*Financial Aid*" as your designation, and include "*Dan Shea*" in the remembrance field.

—William Green, Mario Rivera, and Henry Moy,
with assistance from William Gartner and Shannon Fie.

PHIL CLAYTON WEIGAND

1937–2011

Dr. Phil Weigand left an indelible imprint on the anthropology of West Mexico. As an archaeologist, ethnographer, and ethnohistorian, he carried out original investigations in the Mexican states of Jalisco, Colima, Nayarit, Michoacán and Zacatecas, among others, as well as in the Southwest of the United States, over the course of four decades.



Perhaps the biggest contribution of Dr. Weigand was the definition of the Teuchitlán tradition, characterized by circular architecture associated with the better known shaft tombs, and his studies of obsidian sources and settlements such as Los Guachimontones. No less important are his ethnographic and ethnohistoric studies of the Wixarika (Huicholes) of Nayarit and Jalisco, as well as his works on the Rebellion of New Galicia in the XVI century. He pioneered the perspective that societies in far western Mexico were more complex than previously supposed.

Phil Weigand was born in 1937 in Nebraska to an Air Force doctor and rural school teacher mother. He received his BA from Indiana University in 1962; his MA from the University of Southern Illinois in 1965; and his Ph.D. from Southern Illinois in 1969 under J. Charles Kelley, Pedro Armillas, Walter W. Taylor, and Carroll L. Riley. His dissertation was based on ethnographic work with the Huicholes of Jalisco and Nayarit. During this research he married Acelia García Angiano, with whom he collaborated for the rest of his life. They had one daughter (Celia Imelda), four grandchildren, and two great-grandchildren.

He taught at Southern Illinois until 1970, when he joined the department at Stony Brook University (SUNY) and rose to Professor. In 1989 he left Stony Brook to create the archaeology program at the recently formed Colegio de Michoacán, Zamora, Mexico. For many years he continued CRM work in Arizona and maintained a tie to the Museum of Northern Arizona. Once joining the Colegio de Michoacán Phil began training MA and Ph.D. students working in the Bajío and Jalisco, supervising 11 MA and 4 Ph.D. students.

During his career he had received funding from NSF, the New York Research Foundation, the Wenner-Gren Foundation for Anthropological Research, the state government of Jalisco, and FAMSI. The funding from the state of Jalisco

allowed excavation and reconstruction at the largest Teuchitlán site known as Los Guachimontones, now open for the public and part of a UNESCO Heritage Zone. Shortly before his death he was informed of the decision to name the site museum after him, a singular achievement for an American.

Phil published more than 28 books and monographs as author, joint author, editor, or coeditor and about 150 articles or book chapters. He brought an interest in settlement patterns, survey, architecture,

landscapes, and theoretically informed archaeology to a region generally ignored, and dominated by culture-historical approaches.

Partial List of Publications

Articles/Book Chapters

- Weigand, P. C.
 1968 The Mines and Mining Techniques of the Chalchihuites Culture. *American Antiquity* 33:45–61.
 1970 Huichol Ceremonial Reuse of a Fluted Point. *American Antiquity* 35: 365–367.
 1985 Evidence for Complex Societies during the Western Mesoamerican Classic Period. In *The Archaeology of West and Northwest Mesoamerica*, edited by M. S. Foster and P. C. Weigand, pp. 47–91. Westview Press, Boulder.
 Weigand, P. C., G. Harbottle, and E. Sayre, E.
 1977 Turquoise Sources and Source Analysis: Mesoamerica and the Southwestern U.S.A. In *Exchange Systems in Prehistory*, edited by T. Earle and J. Ericson, pp. 15–34. Academic Press, New York,

Books

- Weigand, P. C., and A. García de Weigand
 1996 *Tenemaxtli y Guaxicar: las raíces profundas de la rebelión de Nueva Galicia*, Colegio de Michoacán, Zamora.
 Williams, E., P. C. Weigand, L., López Mestasand, and D. C. Grove (editors)
 2005 *El antiguo occidente de México: nuevas perspectivas sobre el pasado prehispánico*, Colegio de Michoacán, Zamora.
 Weigand, P. C., C. Beekman, and R. Esparza (editors)
 2008 *Tradición Teuchitlán*, Colegio de Michoacán, Zamora.

—Helen P. Pollard, Eduardo Williams,
and Christopher S. Beekman



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POSITION: CULTURAL RESOURCES SENIOR PROJECT MANAGER

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NEWS AND NOTES

University Press of Colorado Adds Content to the Digital Archaeological Record (tDAR). Working with digital curators at the Center for Digital Antiquity, the University Press of Colorado has added to the Digital Archaeological Record (tDAR) information about 27 of its books on archaeological topics. The subject matter of the books includes a wide range of topics and locations, including the Maya area, Amazonia, Colorado, and the American Southwest. Registered tDAR users may download the books' tables of contents and introductions from the tDAR record. One of the most recent books in the UPC catalog, *Surviving Sudden Environmental Change: Answers from Archaeology*, edited by Jago Cooper and Payson Sheets, may be downloaded in its entirety, <http://core.tdar.org/document/374944>.

This arrangement adds to the archaeological information already available through tDAR, whose content is indexed for searches by Google and other main search engines, and exposes the University Press of Colorado's archaeological catalog to searchers who otherwise may be unaware of its available books. You can find the tDAR collection that lists the UPC publications here.

The Seventh World Archaeological Congress (WAC-7) will be held in Jordan at the King Hussein Bin Talal Convention Center on the Dead Sea, January 14-18, 2013. WAC-7 will feature an engaging international academic program, lively social activities, and optional tours of Jordan's outstanding natural and cultural heritage. WAC-7 presentations may take many forms, including symposia, workshops, forums, debates, reports, and demonstrations. The WAC-7 Program will be organized into large themes, each containing several sessions that relate to the same overall issue (e.g. Archaeology as: Business, Entertainment, Heritage Conservation). Proposals for sessions and individual contributions are now being accepted. The deadline for session proposals is August 30th, 2012. Register and submit proposals early to take advantage of lower registration costs. For further details and the most up-to-date WAC-7 information, including submission, registration, and travel grant deadlines, visit: <http://wac7.worldarchaeologicalcongress.org/> or contact the WAC-7 Program Committee at: wac7program@gmail.com

The Zooarchaeology and Bone Technology Interest Group (ZBTIG) is seeking members. The purpose of the ZBTIG is to create a forum for SAA members to exchange information about zooarchaeology and bone technology research and issues. ZBTIG focuses on the study of hard tissue faunal remains (i.e., bone, antler, shell) to gain insight into different relationships between past behaviors, environments, and social systems. The group is interested in explor-

ing anthropological, biological, and taphonomic topics, as well as the interpretation of faunal data. The group is also interested in theory, methods, and new technologies that can advance the discipline. ZBTIG plans to sponsor symposia, workshops, and events during annual meetings. Overall, the group aspires to be a central resource for questions, dialog, inspiration, and networking for all SAA members that share an interest in faunal research. SAA members who would like to join the group can do so by selecting ZBTIG on their membership renewal form. There is no fee to join. The first business/social gathering will be held during the SAA 78th Annual Meeting in Honolulu, Hawaii.

CALENDAR

2012

OCTOBER 11-12

The Fourth Conference on Eurasian Archaeology. *Fitful Histories and Unruly Publics: Rethinking Community and Temporality in Eurasian Archaeology*. Cornell University. <http://blogs.cornell.edu/adamtsmith/eac/>

OCTOBER 18-19

The American Cultural Resources Association and Continuing Legal Education International are co-sponsoring the international conference, Cultural Resources: Section 106, Historic Preservation, and Tribal Consultation, Washington, DC. <http://www.cle.com/acra>

NOVEMBER 14-18

111th AAA Annual Meeting, San Francisco, CA (<http://aaanet.org/meetings/>)



NOVEMBER 27–30

The ICOMOS International Scientific Committee on Archaeological Heritage Management (ICAHM) will hold its 2012 annual conference in Cuzco, Peru, 27–30 November. The theme of the conference is Archaeological Heritage Management at the 40th Anniversary of the World Heritage Convention. The conference website is: http://www.icomos.org/ica hm/cuzco_home.html

2013

JANUARY 9–12

The Society for Historical Archaeology's annual Conference on Historical and Underwater Archaeology; Ramada Leicester Hotel and University of Leicester, Leicester, England, UK. Abstract submission deadline: July 9, 2012. Contact: Dr. Sarah Tarlow, School of Archaeology and Ancient History, University of Leicester, Leicester LE1 7RH, Leicester, England, UK; email sat12@le.ac.uk; fax +44 (0)116 252 5005

JANUARY 14–18

The Seventh World Archaeological Congress (WAC-7) will be held in Jordan at the King Hussein Bin Talal Convention Center on the Dead Sea, January 14–18, 2013. For further details and the most up-to-date WAC-7 information, including submission, registration, and travel grant deadlines, visit: <http://wac7.worldarchaeologicalcongress.org/> or contact the WAC-7 Program Committee at: wac7program@gmail.com

MARCH 26–31

International Rock Art Congress will be held at the Marriott Pyramid North Hotel, Albuquerque, New Mexico, USA. Hosted by American Rock Art Research Association (ARARA). Registration and more information: <http://www.ifrao2013.org>. Contacts: Conference Co-Chair: Donna Gillette rockart@ix.netcom.com, 805-343-2575; Conference Co-Chair: Peggy Whitehead whw-pjw@att.net, 303-426-7672. ARARA website www.arara.org.

APRIL 3–7

78th Annual Meeting of the Society for American Archaeology. Honolulu, Hawaii. www.saa.org.

MAY 26–31

International Rock Art Congress. Albuquerque, NM. www.ifrao2013.org

2014

AUGUST 8–10

2a Conferencia Intercontinental, Lima, Perú.

WARDEN, from page 26 ↻

it should be noted that there is no magic to gaining high quality 3D results. Errors in procedure, equipment, and software create errors in models that to the casual observer seem correct. There are no tools whose casual use, automatically result in high quality 3D products. Drawing requires expert abstraction of 3D information into 2D planes. 3D products require different expertise for their creation but at least equal or greater amounts as their 2D counterparts to ensure quality.

Archaeology has been making the move towards this creative expertise for some time, now it must begin to make strides in manipulating and reading 3D products. As new ubiquitous software solutions such as 3D PDF and web based point cloud review become commonplace the power of 3D will incentivize its acceptance as the new data form.

References Cited

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1982 Photogrammetry: The Pros and Cons for Archaeology. *World Archaeology*, 14(2):200–205.
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1988 On the Computerization of Archaeological Projects. *Journal of Field Archaeology* 15(4):431–440
- Guderjan, Thomas H.
2007 *The Nature of an Ancient Maya City: Resources, Interaction and Power at Blue Creek, Belize*. University of Alabama Press, Tuscaloosa.
- Neubauer, Wolfgang
2007 Laser Scanning and Archaeology, *GIM International* 21: 10

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SAA

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WE WANT YOU! VOLUNTEERS NEEDED FOR THE ANNUAL MEETING!

For the 78th annual meeting in Honolulu, Hawaii, SAA is seeking enthusiastic volunteers who are not only interested in archaeology but also looking to save money and have fun.

In order for volunteers to have more meeting flexibility, SAA will again only require **8 hours of volunteers' time!** **The complimentary meeting registration is the exclusive benefit for your time.**

Training for the April 3-7 meeting will be provided from detailed manuals sent to you electronically prior to the meeting along with on-the-job training. As always, SAA staff will be on hand to assist you with any questions or problems that may arise.

For additional information and a volunteer application, please go to SAAweb (www.saa.org) or contact Alyssa Barnett at SAA: 1111 14th Street, Suite 800, Washington, DC 20005, Phone +1 (202) 559-7382, Fax +1 (202) 789-0284, or e-mail Alyssa_barnett@saa.org.

Applications will be accepted on a first-come, first-served basis. The deadline for applications is February 1, 2013, so contact us as soon as possible to take advantage of this wonderful opportunity!

See you in Honolulu!