The All-Inclusive $^{14}$C Dating Service for Bones

Now included FREE with $^{14}$C Dating on bone collagen
C:N, %C, %N, $\delta^{15}$N, $\delta^{13}$C (IRMS)

Radiocarbon Dating
Consistent Accuracy, Delivered on Time

Beta Analytic
www.radiocarbon.com
Editor's Corner 2  Anna Marie Prentiss
From the President 3  Susan M. Chandler, RPA
In Brief 5  Tobi A. Brimsek
SAA is Headed Back to the Nation's Capital 6  Torben Rick

SPECIAL SECTION: ARCHAEOLOGIES OF LISTENING

Introduction: Expanding Our Knowledge by Listening 15  Alice B. Kehoe and Peter R. Schmidt
An Ethnoarchaeology of Deep Listening 20  Kathryn Weedman Arthur
Listening to the Late-Nineteenth Century Jesup North Pacific Expedition to the British Columbia Plateau 21  Catherine C. Carlson
Continuing Writings on Stone 23  Camina Weasel Moccasin
Sigiriya Rock: Global Heritage Commodified, Local Heritage Forgotten 25  Jagath Weerasinghe and Peter R. Schmidt
Ethics, Empirical Honesty, and Listening for the Future: Embedding an Archaeology of Listening in Conflict Transformation 27  Audrey Horning

Listening and Learning: The Benefits of Collaborative Archaeology 28  Stephen A. Mrozowski
Lessons Learned from Listening 30  George Nicholas
Listening to Experts: The Directions Indigenous Experience Has Taken Us in the Study of Earth Mounds in Northern Australia 32  Billy Ó Foghlú

Listening to Great Zimbabwe's Local Histories and Its Toponyms 33  Innocent Pikirayi
The Vulnerable Archaeologist 35  Jonathan Walz
Archaeologies of Listening: Listening and Waiting, Excavating Later 36  Peter R. Schmidt

Call for Award Nominations 38
News & Notes 43
Calendar 43

EDITOR’S CORNER

Anna Marie Prentiss

Anna Marie Prentiss is a professor in the Department of Anthropology at the University of Montana.

It was summer of 1999 and I was in the field in British Columbia at the famous pit-house village, Keatley Creek. Our excavation project was the result of an ongoing collaborative partnership between archaeologists from two universities and Ts’kwy’laxw, the Pavilion Indian Band. At the time, I felt pretty confident that I was knowledgeable, not only regarding the archaeology, but also about the local environment. We maintained a regular schedule of dinners and other visits with our partners from the Pavilion community. One night one of the elders and his son began to debate the weather that was predicted for the next week. For me and our group of students, that discussion would normally have revolved around predictions heard from the radio or television (or internet these days). But the Desmonds were debating indicators in patterns of plant growth, animal behavior, wind directions, and cloud cover. At some point they resolved their considerations, and days later the weather changed in precisely the manner that they had predicted. As for me, I realized my knowledge was rather superficial and that if I really wanted to understand ancient human experiences in this place I had best be prepared to do a lot of listening!

Alice B. Kehoe and Peter R. Schmidt offer a collection of essays for our special section, Archaeologies of Listening, which was conceived in a series of discussions between the guest editors and their contributors during a series of events that included symposia at the SAA Annual Meeting in 2015 and WAC-8 in 2016. They and their contributors make the case that understanding the intricacies of the archaeological record requires knowledge that often extends well beyond standard disciplinary interpretive frameworks. They note that to get there means getting to know the rhythms of life for the peoples who inhabit the landscapes where many of us work. But to even begin to gain that understanding means taking time . . . sometimes a lot of time . . . to listen. Contributors to this section include, along with the guest editors, Kathryn Weedman Arthur, Catherine C. Carlson, Camina Weasel Moccasin, Jagath Weerasinghe, Audrey Horning, Stephen A. Mrozowski, George Nicholas, Billy Ó Foghlú, Innocent Pikirayi, and Jonathan Walz. These contributors challenge us to think about how we design field research, interact with local communities (descendant and otherwise), and interpret the archaeological record. Listen closely . . . the stones are speaking, and perhaps also the plants and animals.

This issue also includes an important article from Ben Marwick and colleagues, introducing SAA’s new Open Science Interest Group; by way of this introduction, they review important concepts in open access publishing. Additional contributions include a column from SAA president Susan M. Chandler, “In Brief” from SAA executive director Tobi Brimsek, and an introduction to Washington, DC, the site of the next SAA Annual Meeting (April 11–15, 2018), from local advisory chair Torben Rick. One final note: the September issue includes the annual call for award nominations.
I hope that you all have had a good summer, whether in the field, in the lab, or on the beach. Upon assuming the presidency in early April, I found that the current political situation in the U.S. has required a renewed focus on government affairs. I have also had the opportunity to represent SAA at our 3rd annual Conferencia Internacional as well as at an Amerind Foundation workshop.

Government Affairs

I spent several days in Washington, DC, at the end of June and will be back on Capitol Hill in early September, advocating for archaeology on behalf of SAA. Those of you who subscribe to SAA’s Government Affairs newsletter have been receiving monthly updates with details about our advocacy efforts. I would like to thank everyone who used the SAA web portal to provide comments to the Department of the Interior about the National Monuments review (610 letters sent) and in defense of the Antiquities Act (3,170 letters sent). SAA is part of the Coalition for American Heritage, which is advocating for appropriations for archaeology and the social sciences, providing comments on proposed regulatory review, and keeping a close eye on proposed legislation that could negatively impact our profession and threaten archaeological sites. SAA is also urging members of Congress to join the historic preservation caucus.

Now more than ever, it is critical for archaeologists to educate the public and policy makers that archaeology is important and that the work that we do makes a difference. You can help by talking to your representatives and senators about jobs and projects that are taking place in your state and their district. Help us make archaeology relevant to them!

Because SAA is also concerned about government affairs at the state level, we have established a system of Government Affairs Network State Representatives (GANSR) to help keep us informed about individual state legislation and regulations. If you live or work in Alabama, Arkansas, Delaware, Kansas, Maine, Mississippi, Missouri, Nebraska, New Hampshire, New Jersey, or Oklahoma, please volunteer to be the GANSR for your state (contact david_lindsay@saa.org).

Conferencia Internacional

At the end of April, I attended SAA’s 3rd Conferencia Internacional in Oaxaca, Mexico. Papers were presented in plenary sessions organized around the three Latin American conference themes of Climate Change and Social Relations, Looting and Trafficking in Antiquities, and Exchange and Communications. These sessions, as well as several social events and field trips, provided attendees with the chance to engage in scholarly discussions, to spend time with one another, and to meet invited guests who are some of the key players in Mexican archaeology. I am grateful to Luis Borrerro and Nelly Robles Garcia, who did an outstanding job of organizing the conference.

Valuing Archaeology Beyond Archaeology

In May, I represented SAA at a workshop hosted by the Amerind Foundation: “Valuing Archaeology Beyond Archaeology.” The workshop was organized by SAA members Paul Minnis and Jerry Sabloff. Also in attendance were the presidents of American Cultural Resources Association (Duane Peter), Society for Historical Archaeology (Joe Joseph), and American Anthropological Association—Archaeology Division (Patricia McAnany); the director of Crow Canyon Archaeological Center (Deborah Gangloff, who is also the Archaeological Institute of America Vice President of Outreach and Education); National Geographic Society’s Senior Director of Cultural Heritage (Christopher Thornton); and lead archaeologists from the National Park Service (Joe Watkins and Barbara Little) and the SRI Foundation (Lynne Sebastian). John Yellen of the National Science Founda-
tion participated remotely. We spent two intensive days talking about the different ways that archaeology is relevant to people other than archaeologists and brainstorming about the best ways to put that relevancy into practice.

Register of Professional Archaeologists
Following the Annual Meeting, I received several complaints from SAA members about alleged unethical behavior by other members. Some of these related to papers presented in Vancouver, whereas others pertained to publications. It is important to note that SAA does not have an investigative or enforcement arm with regard to ethics violations. As one of the sponsoring organizations of the Register of Professional Archaeologists (RPA), SAA relies on the RPA grievance process to investigate such complaints. This again brings into focus the importance of professional archaeologists voluntarily registering with RPA. The Register takes disciplinary action against archaeologists found to be in violation of the organization’s Code of Conduct and the Standards of Research Performance, but also protects registrants who have been falsely accused of violations. I urge all SAA members who are qualified (i.e., those with a graduate degree in archaeology or a closely related field) to register.

Council of Affiliated Societies
We are pleased to welcome the Santa Cruz Archaeological Society and the New Hampshire Archaeological Society to SAA’s Council of Affiliated Societies (CoAS). CoAS, which now has 30 member organizations, was created to improve relationships among SAA and local and regional avocational and professional archaeological societies. SAA and our affiliated societies represent a large group of advocates for archaeology who can work together to tackle critical issues at the federal, regional, state, and local levels, including matters that constituent groups identify as important to them.

LINDA S. CORDELL MEMORIAL RESEARCH AWARD
The Linda S. Cordell Memorial Research Award supports scholarly research at the Robert S. Peabody Museum of Archaeology using the collections of the museum. The endowment was named in honor of Linda S. Cordell, PhD, a distinguished archaeologist specializing in the American Southwest and member of the Peabody Advisory Committee.

Eligibility: Professionals in archaeology, anthropology, and allied fields. Preference given to PhD candidates, junior faculty at colleges and universities, and Native American scholars.

Award: Lodging for one week, travel expenses to Andover, Mass., per diem, and a small stipend.

For more information about the Cordell Award and the Peabody Museum, e-mail Ryan Wheeler at r wheeler@andover.edu or see us on the Web at http://bit.ly/22pgzV5
SAAs 2018 Annual Meeting—Washington, DC, Under One Roof Again!

The SAAs 83rd Annual Meeting will be held from April 11–April 15, 2018, in SAAs own hometown of Washington, DC. We hope to see you there. The meeting will be self-contained at the Washington Marriott Wardman Park, 2660 Woodley Road NW, Washington, DC, 20008-4106. Please mark your calendar. The Preliminary Program will be posted on SAAweb in mid-December and will be mailed in late December. The deadline for Advance Registration is March 22, 2018.

Washington Marriott Wardman Park—83rd Annual Meeting
Complete reservation information and links are available on SAAweb and are, of course, included in the Preliminary Program. Please click the “2018 Hotel Information” button on SAAs homepage (http://www.saa.org) to see this information now. Updated information on hotel availability will always be posted in this location on SAAweb.

Social Media and the Meeting
We are proud to announce the official 83rd Annual Meeting hashtag: #SAA2018. If you havent already, please connect with SAAs on Facebook (facebook.com/SAAorgfb), Twitter (@saa.org), and LinkedIn (https://www.linkedin.com/company/society-for-american-archaeology). Students have their own hashtag: #SAASstudents.

How Do I Get a Free Membership in SAA?
Register for a room at the Marriott Wardman Park by January 29, 2018, and your name will be entered into a drawing for a one-year membership. There will be two drawings one for students in the student block and one for all others. Don't miss this opportunity!

SAAweb Progress
Over the summer, the SAAweb redevelopment project truly got underway. A consultant was hired to develop the RFP for the redesign, emphasizing the need to choose a firm with particular strengths in system architecture. In developing the RFP, we have reached out to all interest-group organizers and committee members as well as to the Board. Responses to the RFP are expected in the fall, and a recommendation will be made to the Board at their fall meeting for a vendor selection. Once the project is approved by the Board, a task force will be developed to provide ongoing input to the project. Once the new version of the web is developed and designed, all of the pages generated from SAA’s database management system will be retrofitted in a compatible template. This will be the second phase of the project. A new web is on the horizon! Updates on progress and a projected roll-out schedule will be shared as they become available.

Coming in November—Open Call for Committee Service
Now in its eighth year, an open call will be held in November for members to have the opportunity to volunteer for specific committees with open slots. Volunteer terms will begin at the close of the Annual Business Meeting in Washington, DC. Terms for most committees are three years.

Those currently serving on a committee who would like to be reappointed for a second term do need to fill out an application form in the open call. Please be aware that no reappointments are allowed on any awards committees.

Students—most committees have two slots reserved specifically for student members. This is a wonderful way for students to become engaged with the Society. Please consider serving in this capacity!

In advance of the process, we would like to thank all of you who are willing to serve as well as those who are currently serving.

Staff Transitions
In July, Marnie Colton joined the staff as SAs new publications manager, replacing Maya Allen-Gallegos. Marnie came to SAA from the Journals Division of the American Psychological Association, and previously held publishing positions at Johns Hopkins Institute of Genetic Medicine and the Johns Hopkins School of Medicine, where she worked on the American Journal of Physical Anthropology.
For the first time since 1974, the SAA Annual Meeting is headed back to Washington, DC, from April 11 to April 15, 2018. Best known as the political hub of the United States, Washington and the surrounding metro area are extremely vibrant and offer limitless possibilities for exploration in between conference sessions and meetings. Whether your interests are sightseeing on the National Mall, a visit to a museum, a stroll along the Potomac River, or food and drinks from one of our world-class restaurants, we have you covered. With more than 20 million tourists visiting DC every year, one key to success when visiting is planning ahead, especially if you are trying to squeeze in sightseeing between conference events!

Although not without complications, getting around DC is pretty straightforward, with most important sights accessible by metro rail or bus. DC is a very walkable city, taxicabs, Uber, and Lyft are also readily available, and bikes can be rented at Capital Bikeshare locations around the city.

Regardless of your political leanings, things are always interesting in DC and the present is no exception! We have seen a resurgence in interest in national politics, including an uptick in peaceful marches and demonstrations. Take advantage of the time to see some of America’s flagship institutions and put the SAA Government Affairs section in proper context. Tours of the United States Capitol Building, White House, Supreme Court, Library of Congress, National Archives, and more are all offered free of charge. For a Capitol or White House tour, these need to be scheduled in advance through your congressional representative or senator, or at the White House (https://www.whitehouse.gov/participate/tours-and-events) or Capitol websites (https://www.visitthecapitol.gov/plan-visit).

Torben Rick

Torben Rick is Chair of the 2018 Annual Meeting Local Advisory Committee.
You may have heard that DC is a swamp. In fact, only a small part of Washington, DC is built on reclaimed marsh/tidal land. However, there is no better way to experience “the swamp” than by spending time on the National Mall, visiting the Smithsonian Institution and National Memorials/Monuments. April tends to be one of our most pleasant months, with generally nice temperatures and low humidity. A walking or bus tour of the National Mall is a great way to see the Lincoln and Jefferson Memorials, Washington Monument, Martin Luther King, Jr. Memorial, Tidal Basin, and Vietnam, Korea, and World War II Memorials. Several companies also offer tours of the monuments at night, which can be a unique way to see this important part of American history and unwind after a day of SAA activities.

The eastern half of the mall is dominated by some of the Smithsonian’s 19 museums. The National Museum of Natural History and the National Museum of the American Indian both contain exhibits particularly germane to the SAA. Equally interesting are the National Museum of American History, National Gallery of Art (NGA), Hirshhorn Museum, National Air and Space Museum, and the U.S. Botanic Garden (administered by the Architect of the Capitol). The NGA’s National Sculpture Garden has a lovely outdoor fountain and artwork, as well as a great café for a pleasant outdoor lunch or coffee.

The Smithsonian’s newest museum is the National Museum of African American History and Culture (NMAAHC), which opened in 2016. The NMAAHC is free, but visitors currently must obtain timed entry passes in advance. All of these museums are within walking distance from one another and all of the Smithsonian museums and the U.S. Botanic Garden are free to the public. It is impossible to see all these museums in one visit, so plan ahead.

April is cherry blossom time in Washington, DC. While visiting the National Mall, a tour around the Tidal Basin and Jefferson Memorial offer a chance to see the iconic cherry trees and their blossoms that were a gift from Japan to the USA in 1912. The 2018 Cherry Blossom Festival is from March 20 to April 15, with a parade scheduled for April 14 near the end of the SAA meetings. Although it is impossible to predict when peak bloom will occur, the National Park Service does an outstanding job offering updated predictions, as well as a remarkable job caring for the cherry trees and the entire National Mall.

I look forward to seeing you all in DC! Stay tuned for the next issue as we leave DC government behind and explore the restaurant and bar scene as well as numerous other DC sights.
In archaeology, we are accustomed to investing great effort into collecting data from fieldwork, museum collections, and other sources, followed by detailed description, rigorous analysis, and, in many cases ending with publication of our findings in short, highly concentrated reports or journal articles. Very often, these publications are all that is visible of this lengthy process, and even then, most of our journal articles are only accessible to scholars at institutions paying subscription fees to the journal publishers. While this traditional model of the archaeological research process has long been effective at generating new knowledge about our past, it is increasingly at odds with current norms of practice in other sciences. Often described as “open science,” these new norms include data stewardship instead of data ownership, transparency in the analysis process instead of secrecy, and public involvement instead of exclusion. While the concept of open science is not new in archaeology (e.g., see Lake 2012 and other papers in that volume), a less transparent model often prevails, unfortunately. We believe that there is much to be gained, both for individual researchers and for the discipline, from broader application of open science practices. In this article, we very briefly describe specific examples of openness that can offer maximum benefit for researchers. From this perspective, we have identified three elements of open science that cross-cut Fecher and Friesike’s themes: open access, open data, and open methods.

Open Access
Open access typically refers to permanent online access to the full text of scholarly work, especially publications, without charge to readers or libraries. There are many ways to accomplish this: for example, “Gold Open Access” refers to the author paying a fee for publication (typically referred to as an article processing charge, or APC). The fee is intended to defray the cost of publication that the publisher would recoup through institutional subscriptions. These APCs can be quite expensive, however, and often deter researchers from granting access to their publication. This particularly affects researchers in developing countries, authors from traditionally underrepresented groups, early-career researchers, and those in disciplines, such as archaeology, where article subvention fees are not commonly awarded in research grants (although some journals offer waivers). An alternative approach,

What Is Open Science?
Openness in science is significant in that it both defines the origins of modern science and imagines the future of science (Fecher and Friesike 2014). In their review of discussions of open science, Fecher and Friesike identified five themes: infrastructure (i.e., creating tools and services to improve research efficiency), the public (i.e., making science accessible for non-scientists), measurement (i.e., developing alternative metrics to measure the impact of research), democracy (i.e., making knowledge freely accessible to all), and pragmatics (i.e., making collaborative research more efficient). The broader public benefits of advancing open science have been widely discussed (OECD 2015), and we will not expand on those here. Instead, we take a researchers-centric approach, drawing on our experience as practicing archaeologists to focus on specific examples of openness that can offer maximum benefit for researchers. From this perspective, we have identified three elements of open science that cross-cut Fecher and Friesike’s themes: open access, open data, and open methods.
referred to as “Green Open Access,” is for authors to make their manuscripts freely available online as preprints prior to journal publication (Figure 1). An advantage of Green Open Access is that it is free for authors to submit and free for readers to access (the preprint of this paper containing additional citations is online at doi.org/10.17605/OSF.IO/3D6XX).

Notable examples of disciplinary-oriented preprint repositories are arXiv.org, a repository for physics, mathematics, computer science, astronomy, and related papers, and bioarXiv.org for biomedical and life sciences. In fact, some biology funding sources require preprints to be deposited prior to publication. Preprint repositories commonly used by archaeologists include socarxiv.org and papers.ssrn.com, both of which specialize in the social sciences. We note that academia.edu and researchgate.net are popular for sharing articles online; however, these are private, for-profit companies that do not own the rights to host most of their content (and so are vulnerable to legal action) and require registration to access. These should not be considered substitutes for a preprint repository. Most research-intensive universities have their own open access repositories to enable their researchers to disseminate their work as preprints. Many journals allow researchers to post preprints of their published articles, giving researchers a wider choice of journals in which to publish (compared to the small number of Gold Open Access journals), while still enabling open access. The individual policies of specific journals can be checked online at the SHERPA/RoMEO database (http://www.sherpa.ac.uk/romeo/index.php). Open access publications benefit researchers because they typically achieve increased impact by being cited more frequently and receiving more media coverage (see McKiernan et al. 2016 for a summary of empirical work on this topic). Researchers may also benefit from their publications being easily accessible to prospective students and nonacademic collaborators, such as local and indigenous communities.

Open Data
Open data means open access to datasets. Data can take many forms; here we refer to items such as a spreadsheet of artifact measurements or a GIS layer of site locations and attributes—the information used to make the summary tables and plots that typically appear in reports and publications. Traditionally, archaeologists have viewed datasets as their proprietary products, and having paid a high up-front cost to collect the data, they hope to recover that cost through publications based on exclusive access to those data. In many fields, this data-ownership mindset is viewed as obsolete and has been replaced by the idea of data
agencies (e.g., Wellcome Trust, Bill and Melinda Gates Foundation, National Endowment for the Humanities, and the National Science Foundation) and journals (e.g., PLOS, Evolution, Scientific Data, and Royal Society journals) that require researchers to share their data with other investigators by depositing the data in a public repository. Substantial technology and infrastructure has appeared to accommodate the data availability requirements of these funding agencies and journals.

A comprehensive list of repositories (many of which are free to use) for various fields is available at www.nature.com/sdata/policies/repositories. Examples of repositories specifically for archaeological data include opencontext.org, tdar.org, and archaeologydataservice.ac.uk, among others. The attributes of trustworthy data repositories include having an explicit mission to provide access to and preserve data, offering appropriate licenses covering data access and use (e.g., CC-0), having a continuity plan to ensure ongoing access and preservation of its holdings, guaranteeing the integrity and authenticity of the data (e.g., by using version control), and enabling users to discover the data and refer to them in a persistent way through proper citation (e.g., with a DataCite DOI). Using a trustworthy data repository is important for ensuring ongoing availability of data because direct requests to researchers for their privately held data often fail (Vines et al. 2014).

Providing open access to data is more challenging than opening access to publications because of the potential for harm to people and cultural heritage that can result from misuse of the data or the release of sensitive information (such as personally identifiable data or detailed site locations). Opening data also requires consideration of intellectual property ownership, especially for archaeologists working in large teams, in commercial and government sectors, and/or with indigenous/ descendant communities. Many of these ethical issues can be addressed by negotiation, legal instruments (such as Creative Commons licenses), or technical solutions; for example, redacting portions of data, limiting spatial precision (an approach used successfully in projects such as the Digital Index of North American Archaeology), restricting access, or imposing embargos. Of course, researchers must be vigilant in comprehensively addressing any negative impacts prior to opening their data to public access. Nevertheless, our experience is that for most archaeologists it will not be burdensome to share the minimal data behind the tables and figures in their journal articles, or even the more detailed original and unaggregated records. Indeed, many archaeologists already do this routinely via supplementary online material for their journal articles. Similar to open access, there are citation advantages and an increase in the impact of their work for researchers who share the data behind their publications (see McKiernan et al. 2016 for discussion of the empirical research). There are also benefits to other archaeologists from opening access to data. For example, researchers can find their past research data more easily when it is publicly available at a reputable repository, and in our experience with our own research, data is likely to be better documented and easier to reuse when it is prepared for public access.

Open Methods

Open methods are methods of data collection, analysis, and visualization that are available for inspection and reuse by the public. This approach can include empirical methods (e.g., the details of chemicals used to prepare samples) and computational and statistical methods (e.g., the details of taking raw data and producing statistical tests, models, and visualizations). Open methods are important for improving the reproducibility of research; that is, the ability to redo a study, with the same materials and methods, and get the same result, which is a cornerstone of science (Stodden et al. 2016). This is because the complexity of most current research, especially computational and statistical methods, means that a typical journal article is too short to communicate enough details to enable reproducibility. Open methods have emerged in other fields in response to highly publicized failures to reproduce the results of notable studies in biomedicine, psychology, genomics, political science, and economics.

This has resulted in extensive discussion of how to improve reproducibility across many fields (e.g., Goodman et al. 2016; Munafò et al. 2017; Sandve et al. 2013; Stodden and Miguez 2014; Stodden et al. 2016; Wilson et al. 2014), including archaeology (Marwick 2016). These discussions have converged on a few frequently recommended practices (Figure 2), including using a transparent software environment that enables reproducibility (such as R or Python; Figure 3) to analyze data rather than software whose analytical algorithms are proprietary black boxes (e.g., Excel, SPSS, PAST); using a version control system that can efficiently track and log changes and simplify collaboration (such as Git, similar to “track changes” in Microsoft Word, or “revision history” in Google Docs); using open-source licenses to make the code maximally available for reuse while ensuring recognition of effort (such as Apache, MIT, or GPL licenses); and archiving these methods at trustworthy repositories where they are freely accessible (e.g., R or Python script files deposited at osf.io, zenodo.org, or figshare.com). These recommendations simplify the task of making our scientific workflows available at the time of publication, and so streamline the task of making the methods available for public inspection and reuse.

How Is Open Science Relevant to Archaeologists?

These three practices—open access, open data, and open methods—are relevant to three of the goals of the Society for American Archaeology (SAA).
How Is Open Science Relevant to Archaeologists?

These three practices—open access, open data, and open methods—are relevant to three of the goals of the Society for American Archaeology (SAA).

First, the SAA “advances archaeological research and disseminates archaeological knowledge.” Open science practices support this goal by encouraging archaeologists to conduct research that is transparent, reusable, and easily accessible (open data and open methods) without financial or copyright barriers (open access). The Open Science Interest Group (OSIG) will help to educate archaeologists about options for using software that enables reproducibility, generating scripted workflows, using environments for version control and collaborative analysis, making data and preprints available through public repositories, and publishing research in open access journals.

Second, the SAA “improves the practice of archaeology and promotes archaeological ethics.” Open science practices improve archaeology by increasing transparency and reproducibility in archaeological research. This approach enables archaeologists to more readily and responsibly build on the work of their colleagues, advancing archaeological practice and accelerating discovery. Transparency and reproducibility also enhance the credibility of archaeological research by allowing more complete independent assessment of research findings than is possible with traditional peer review of only research results. Open science practices promote ethical research by enabling researchers to efficiently demonstrate the chain of reasoning behind their data analysis and expose more of their research workflow to the research community and the public. The OSIG will help to educate archaeologists on how to improve their research, and the field of archaeology more broadly, with open science tools and methods.

Third, the SAA “serves as a bond among archaeologists worldwide in all segments of the archaeological community.” Community best practices for open science in archaeology facilitate the sharing of methods, data, and results by encouraging researchers to deposit them in trustworthy online repositories. Standardizing research-sharing practices enhances engagement between archaeologists, our collaborators, and the communities we work with, including policymakers and project managers. Open science practices promote inclusiveness because they remove financial, institutional, and other barriers from researchers engaging with each other, and with methods and data.

In addition to advancing the goals of the SAA, the OSIG will help archaeology contribute to the open science movement that has become part of normal scientific practice in many fields. For example, members of the Ecological Society of America, the European Geosciences Union, and the Organization for Human Brain Mapping have organized open science sections to help researchers benefit from openness. Similarly, formal open science policies have been developed by the Association for Psy-

Figure 2. The reproducible research spectrum. Reproducibility is not a binary quality but a spectrum (Peng 2011). Scientific articles that contain only the final text, results, and figures (e.g., in a single pdf document) are advertising a finding, and these are the least reproducible—it is often impossible to reconstruct the whole analytical process from data to results. Publication of the data and/or code used for the analysis greatly improves reproducibility. Similarly, using a version control system (such as Git) permits navigating through the complete history of the project. Finally, the most reproducible, and thus scientific, studies are those using dynamic reports (e.g., R Markdown notebooks) that integrate text, code, and data into an executable environment.
The mission of the OSIG is twofold: (1) advance transparency and accessibility in the ways archaeologists and institutions manage data, methods, and research outputs; and (2) share information with individuals and institutions on how to develop open practices that enable reproducible research. We will endeavor to fulfill this mission through our individual research practices and through activities as an SAA interest group. As researchers, we will strive to make our research more reproducible, and to influence others to do the same through the following practices:

- Generating and making accessible explicit or scripted, reproducible workflows for our data analysis. To the extent possible, we will employ transparent and accessible analytical tools and software (such as R, Python, and other programming languages) so that our research can be easily evaluated by others (Marwick 2016).
- Requesting data and code when we review manuscripts, and when in editorial positions, advocating for data and code review as a part of standard peer review practices at a journal (Stodden et al. 2013).
- Including—and following through on—comprehensive data management plans in all research designs.

**What Is the Open Science Interest Group Doing? What Can You Do?**

Figure 3. A screenshot from the RStudio program showing how R can be used for reproducible research. In the left panel is a text editor, where we write plain text and code in an R Markdown file (known as an Rmd file). In the right panel is the output that is produced when the Rmd file is “knit,” or rendered, into a document. In this example, the Rmd has been knitted to produce an HTML file, but we could also produce a pdf or Microsoft Word document from the same Rmd file. The first paragraph of the text in the example demonstrates how to use markdown for basic text formatting (e.g., a heading, a URL, bold and italic text). The second paragraph shows how R code can be embedded in-line in the text. The rendering process automatically runs the code and inserts the result in the text; here, it computes the number of rows in the “cars” dataset and inserts the result (50) in the rendered document. The text in the gray region on the left is a chunk of R code that produces the plot in the HTML file on the right. We use echo=FALSE in the code chunk to specify that the code chunk is not displayed in the HTML file; we see only the plot that the code generates. This method of writing text and code in the same document enhances reproducibility because the methods of data analysis (i.e., the R code) are explicitly included in the same document as the text, and the code can be easily and repeatedly run to generate results. This removes the need to copy and paste tables and plots from other software into the text, eliminating transcription errors and confusion about where a particular result came from.
• Teaching our students and mentees to work reproducibly and openly (Marwick 2016).
• Archiving our papers or preprints in open access repositories (McKiernan et al. 2016).
• Archiving our research data and code in trustworthy repositories and citing these archives in our published work using DOIs (McKiernan et al. 2016).

These actions align with recent recommendations for increasing openness and reproducibility in science generally (Miguel et al. 2014; Nosek et al. 2015; Stodden et al. 2016). We recognize that there are different degrees and dimensions of openness that are available to researchers, depending on their circumstances and skills. Thus, not all of us can take these actions all the time, but through the aggregate of our individual actions we can improve archaeological research practice toward the norms of open science.

As an SAA interest group, we have identified two initial activities relevant to our mission. Our first activity is to incentivize open practices by issuing Center for Open Science (COS) badges for Open Data and Open Materials (osf.io/tvyxz) for display on qualifying posters and slide presentations at the SAA Annual Meeting and other professional venues. These badges are used in many disciplines and have been shown to increase data sharing (Kidwell et al. 2016). We also will work with the SAA Publications Committee and other archaeological journals to explore how COS badges can be applied to journal articles. The second activity is to conduct workshops using Software Carpentry (software-carpentry.org/) and Data Carpentry (datacarpentry.org) pedagogy and materials. These workshops aim to train researchers to use open science tools so that they can work more efficiently, reproducibly, and openly. We will offer these workshops in-person at SAA meetings, online via the SAA webinar series, and elsewhere. We will also host and sponsor traditional SAA meeting events to foster the exchange of ideas and community interaction, as well as collaborate with related communities such as the Digital Data Interest Group and Public Archaeology Interest Group.

We invite all archaeologists to join us in becoming more responsible researchers by following the individual best practices for open science listed above to the benefit of all members of the archaeological community, other scientists, and the public more broadly. To support open, transparent, and reproducible science in archaeology as a member of the SAA Open Science Interest Group, please subscribe to our e-mail list at https://groups.google.com/group/saa-osig/subscribe for updates. The OSIG website (osf.io/2dfhz) contains further information about the group, resources, and details of news and updates.

Summary
In this article we have briefly surveyed the goals and best practices of current open science initiatives and identified specific practices that have been shown to benefit individual researchers, as well as science more broadly. These are (1) increasing open access publication by depositing preprints; (2) accompanying published articles with open datasets deposited in trustworthy repositories; and (3) creating and making available transparent and reproducible scientific workflows, including relevant code, along with published research. We have outlined how these practices are relevant to archaeologists and how they advance the goals of the Society for American Archaeology. In addition, we have described some of the activities of the SAA Open Science Interest Group and explained how they will help to make open science more a part of normal archaeological practice.

We recognize that many archaeologists may be unfamiliar with open science practices, and could initially imagine that incorporating these practices into their normal work might entail additional investment of time, effort, and other resources. While depositing preprints can be a quick and simple action, learning a new program for data analysis requires considerably more effort (although our experience has been that learning an open source program like R or GRASS is little or no more difficult than initially learning any other complex software like SPSS or ArcGIS). To address this, the OSIG plans to offer training workshops to speed the adoption of open methods. These workshops will initially include the open-source statistical programming language R, the version control system Git, and the use of data repositories. In the long run, we believe that use of scripted workflows in environments like R and Python actually improves researcher efficiency considerably, while using open-source software significantly reduces licensing costs. Similarly, some archaeologists may fear the limitations to publication potential that could result from others using their open data and code, the possibility that their materials may be used without citation, and the risk that competitors may gain an advantage. Our view is that these risks have always been present in the traditional research practices of scholarly communication and peer review, and that open science licensing and citation practices effectively mitigate them. Moreover, because sharing of data and code enables and encourages collaborative research, more open science practices can even increase the potential for new research (and publications) with extant data—an important benefit to junior researchers in particular. Overall, we believe any costs for the practice of open science are well worth the many substantial benefits it brings to archaeologists and the archaeological community.

Acknowledgments
Thanks to Tobi Brimsek for her advice on the initial steps of organizing this group. Ben Marwick conceived and wrote the
paper and figures; the other authors (listed in alphabetical order) edited the text and supported and endorsed the formation of the OSIG. A version of this document containing extensive citations, hyperlinked text, and marginal discussions among the authors is online at http://bit.ly/OSIG-SAAAR.

References Cited

Fecher, Benedikt, and Sascha Friesike


INTRODUCTION: EXPANDING OUR KNOWLEDGE BY LISTENING

Alice B. Kehoe and Peter R. Schmidt

When Peter Schmidt and Steve Mrozowski proposed, at a Society for Historical Archaeology meeting in 2010 (Schmidt and Mrozowski 2013), that we recognize the “death of prehistory,” they articulated the essence of postcolonialism: all communities have histories, there is no such thing as “prehisotry.” This issue, plus our concern over how history of other cultures is represented by archaeologists, brought us together in this set of essays to discuss what is required in our practice to ensure the historical perspectives of those among whom we conduct research.

We first gathered for a session at SAA 2015, followed by a special symposium at Timber Cove, California, and then a special session at WAC-8, 2016. Out of our discussions arose the concept “Archaeologies of Listening.”

The practice of listening to our peers and teachers who live at our sites or are descendants, raised consciousness of the constraints of routine archaeology. Their realities, their habitus (Bourdieu 1990:52), diverge from ours. By listening to knowledgeable people native to the places where we perform archaeology, we begin verstehen, a concept popularized by Max Weber that emphasizes participatory understanding. With acceptance of this deeply established concept in anthropology, archaeologists can begin to slide out of the constraining box of Western Enlightenment science. Certainly our disciplinary ancestors valorized such richly furnished practice as good science, a legacy that goes back to Franz Boas and includes Alfred Kroeber among many others. In archaeology, the practice of historically informed interpretation appears to have been neglected, causing us to ask: Is it not science? We argue here that archaeology is historical science, and that the historical sciences require a method fundamentally different from that common to the physical sciences (Simpson 1970; Turner 2007).

Historical sciences are inductive, not deductive. Archaeologists have before them the data, the empirical evidence. They observe these data; they cannot manipulate them in labora-

tory experiments (although they can experiment with replicating the means leading to observed data). To infer the best explanation for the data (IBE²), archaeologists need wide experience of processes, both cultural and natural, that may have produced the observed data. Here the value of listening to our peers in local and descendant communities comes to the fore: they have lived experiences and behavior that may be analogous (bearing some but not all attributes) to those that produced the archaeological data, and they can demonstrate and describe wider social contexts. Such knowledge may remain obscured or significantly marginalized unless archaeologists take the time to hear and see their local peers, “to hang out with” the community. That takes time. It means taking the time to have many cups of tea or coffee for days on end; it means absorbing the landscape, the climate, and pace of life, all of which experientially configure a slowly developing sense of the local reality. Through such long-term interaction and engagement comes comprehension of non-

human components—sensing, for example, how Blackfoot living along the Rockies know that mountains live long, very slow, lives, or how ancestral spirits inhabit snakes during important rituals of renewal among the Haya of northwestern Tanzania.

In this collection we will illustrate how we, as archaeologists, listened and were enriched, and how we learned to draw upon data we might not have otherwise observed, to see contexts obscured by Western protocols. Prior to the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990, such humble listening to local people, whether indigenous or settler, was generally discouraged as naive or nonscientific; today, archaeologists can no longer entertain such prejudices (Figures 1 & 2). In a broader frame of reference, realization of the myth foundations of Western imperial and colonizing policies—the Doctrine of Discovery (Miller 2008; Miller et al. 2010) and its continuing impact—calls into question a myriad of premises stemming from accustomed “common sense,” from the assumption that
deer-browse models apply to human groups, to American archaeologists’ reluctance to use European political terms such as “kingdom” for indigenous American polities.

Our group coalesced from collegial relationships where we shared methodology and standpoint, spreading across research areas from Africa to Australia, North America, Ireland, and Sri Lanka. We feel that our epistemological approach reflects a shift in the discipline that we wish to illuminate here. We also note that much of what follows will resonate with readers who follow the emerging practice of community archaeology (see Atlay 2012; Colwell-Chanthaphonh and Ferguson 2008; Schmidt and Pikirayi 2016; Schmidt 2017). This similarity testifies to the decades-old practice of community approaches among some North American archaeologists as well as archaeologists of Africa, where the practice has endured for six decades (see Schmidt 2014). We now share some of the distinctive insights that arose out of our discourse and that will appear in our book in preparation, Archaeologies of Listening.

Kathryn Weedman Arthur came to realize that “testing” Western universalizing categories and theoretical principles fails to capture the most significant cultural information pertaining to field inquiries, and slips too easily into tautologies. Twenty years of fieldwork with the Boreda people in Ethiopia, years during which her status with them shifted from novice archaeologist to mature woman with family, opened up variations in praxis among Boreda districts that reached deep into ontologies of humans, other beings, and what we see as technologies. She learned to listen to the silences as well as to speech and the noises of the land. In Boreda reality, knappers listen to the stone, it guides them to make visible its form—as Western writers describe perceiving form within the stone block as they carve. Boreda value listening keenly and patiently. Learning to comport herself as a mature adult among Boreda, Arthur realized how listening expands and deepens the practice of seeing, in shifting into others’ realities. Those realities have profound implications for knapping studies, as various stages in the knapping process are constructed in local ontology as stages in the life cycle, from birth, through initiation into adulthood, to death—a radically different way of seeing stone tool-knapping, invisible until Arthur and her partners listened to local discourse.

Catherine Carlson writes of her experiences encountering antipathy toward archaeology in some British Columbia First Nations communities. She traces this attitude back to the work of pioneer archaeologist Harlan I. Smith for the American Museum of Natural History Jesup North Pacific Expedition, 1897–1902. The museum expected Smith to bring back skulls from Indian graves, disregarding their families’ desire to keep their dead. Reading Smith’s field notebooks, Carlson sees that he was unhappy over the task, though as a young professional he was in no position to deny instructions. Significantly, he also listened to and recorded the testimonies of the people of the communities, although he was required to write up his work in the objective, passive-voice “scientific” style of the time.

Camina Weasel Moccasin, a citizen of the Kainai (Blackfoot) Nation, returned to her homeland after graduate work for a position in Writing-on-Stone Provincial Park, in Kainai territory. Park policy allowed Blackfoot people to enter and perform rituals, and it was possible, with permission, to create new art under park supervision, but protocols for engaging with Indian people were not clear. In consultation with both park staff and Blackfoot, Weasel Moccasin is currently drawing up such protocols. As she consults with her people, she has come to realize that attempts to conserve the rock art, on spalling sandstone, with artificial preservatives, wrongly interfere with the natural life of the images. Nitsitapiksi (Blackfoot) say that recording on the rimrock is a living practice, that new images should be created by appropriate persons such as war veterans, and older images allowed to follow their natural life. Listening clearly illuminated a reality different from the heritage management principles she was taught in graduate school while simultaneously opening new management and interpretative vistas. Revisions of exclusive management principles and limited interpretative treatments signal a significant endorsement for community engagement and change in the way that native communities are recognized.

Similar issues arise in Sri Lanka, where archaeologists and heritage researchers have identified the importance of listening to native voices around the famous Sigiriya Rock World Heritage Site. Jagath Weerasinghe, collaborating with Peter Schmidt, describes the conventional heritage management given to Sri Lanka’s ancient fortress, Sigiriya Rock. Overlooked by the planners, hundreds of people live and work in the environs around the Rock, as they have for fourteen-hundred years. Their management of water allocation and forests, paddies, and collection of medicinal plants, effective for centuries, is encroached upon by mass tourism, housing developments, forest destruction, and commercialization, including prostitution. Listening to local residents, Weerasinghe and Schmidt have integrated local principles for future heritage management of Sigiriya Rock that include full participation of surrounding villagers. Innovative indigenous ideas about how to better manage Sigiriya and its environs.
are featured along with a renewed interest in maintaining the vitality of local heritage practices.

Audrey Horning takes us in an altogether different direction with her research in Northern Ireland, a project utilizing seventeenth-century archaeological data to address the bitter division of the country between Catholics and Protestants. Each of these, she says, considers itself an oppressed minority. Eighty-eight “peace” walls running through Belfast symbolize the ongoing divisions. Local history attributes the division to England’s establishment of plantations in the north of Ireland, subordinating the peasantry and their lords. Archaeological evidence and close reading of archives, however, destabilize local knowledge in its black-and-white assertions. Horning must listen respectfully to emotionally tinged beliefs, as she presents to both sides the empirical data that paint a picture of accommodations that each has made in the colonial situation. Can archaeology soften, if not perhaps resolve, the Northern Ireland conflict? Listening to both sides, bringing together good-hearted people from each, Horning works within highly polarized, real-world circumstances requiring constant diplomacy to pacify seething resentments. Is this listening too much to ask from archaeology, or perhaps beyond our capacities? Or is trying to do what we might, a moral imperative?

Stephen Mrozowski, similarly to Horning, works with data from seventeenth-century English colonization that oppressed indigenous communities. In his case, it is colonial New England where English missionaries displaced Nipmuc Indian villages, constructing “Praying Indian” settlements of supposedly converted families. Three centuries later, the United States Office of Indian Affairs ruled that the Nipmuc no longer exist as a tribe (the US designation of First Nations). Yet Mrozowski met a local Nipmuc woman, Rae Gould, who told him that there is a Nipmuc community, and that they are appealing the federal dismissal. Pursuing a doctoral program in historical and archaeological research to support her people’s claim, she acted as their Tribal Historical Preservation Officer (THPO). Listening to Gould, Mrozowski read archived documents and archaeological data with enriched understanding, establishing evidence for the Nipmuc Nation’s continuing existence as its citizens adapted to colonial encroachments that are, in fact, still continuing. His project now contributes significant material to the Nipmucs’ claim for federal recognition and the assistance it can deliver.

George Nicholas, like Camina Weasel Moccasin, has been engaged in listening to indigenous communities’ wishes in heritage management. In his case, over 30 years’ experience of collaboration led to the Intellectual Property Issues in Cultural Heritage (IPinCH) project. Expanded to a global reach, it brings archaeologists to communities representing a range of heritage situations, from Inuvialuit in Alaska, through Anishinaabeg in Michigan, to Moriori in New Zealand and beyond. IPinCH members not only have listened to community members explaining what they value in heritage, they have also been able to fund community-driven projects. What has been revealed is that heritage may encompass more than objects and discrete sites; descendants may value information within objects—how they were made and used—to retrieve skills and revive practices. Led by communities, IPinCH heritage projects have broadened our understanding of what “heritage” can be.
Moving to the Pacific, Billy Ó Foghlú describes archaeologists’ difficulties in recognizing human constructions in northern Australia’s landscape. Requesting assistance from a local Aborigine woman who works to explain her people’s reality to visitors, Ó Foghlú listened and learned to see low earth mounds built up (like tells) from usage over time. The Australian mounds result from earth ovens; they are located where people come to camp again and again, and the more ovens are made in them, the richer their earth and the better their functioning as ovens. Broadening his perspective as he listened to the Traditional Owner, Ó Foghlú understood that on a landscape that cannot support agriculture-based states, the earth-oven sites were and are meeting grounds and nodes of interaction for its people, cosmopolitan and socially complex. His archaeology of listening, like that of Mrzowski, has been called upon by the indigenous nation to support their Native Title Land Claim.

Innocent Pikirayi, an archaeologist from Zimbabwe, studies the fabled fortress of Great Zimbabwe. Listening to the toponyms that people shared with his team as they carried out an archaeological survey of the region, he found that his view expanded to see its surrounding mountains and the inflowing streams that signify its history. Boroma, the ononym for the dominating hill, is also the name of the sixteenth-century ruler of Great Zimbabwe, as well as his dynasty and royal family. As chiefs are buried on the hill Boroma, sounds of heavy rain and of cattle bellowing are mysteriously heard. The medieval state, Great Zimbabwe, and Boroma its ruler are outlined on the landscape in the toponyms spoken by its residents. By listening to the landscape and its meanings, the archaeologist begins to understand links among landscape, history, and power.
Across Africa to Tanzania, Peter Schmidt, on first beginning fieldwork in 1969, took the unusual step of spending nearly a year discussing with local people where best to begin an excavation project. Oral histories about King Rugomora’s palace and the sacred shrine tree Kaiaja suggested these would be informative sites. Archaeology proved this, revealing a history of iron smelting and, through explanations by Haya men of knowledge, the rich metaphors embodied in Kaiaja. Decades later, with his continued friendship with Haya communities, Schmidt was invited to participate in a locally initiated research project to recuperate intangible heritage, disappearing oral traditions, and sacred places. As a co-producer in this project, he and his collaborators listened to formerly overlooked female experts who revealed significant information about a female ritual official responsible for rites at Kaiaja shrine—deeply enriching the interpretation of archaeological features at this site. By listening to elderly women, Schmidt and his fellow researchers realized that androcentrism had truncated the meanings of the revered shrine. He also was able to reciprocate through sharing his notes from the early years, when he recorded information on a massacre by German colonial troops: this forgotten episode accounted for skeletons discovered by schoolchildren in a cave. Knowledge about that massacre was not the only local knowledge lost; HIV/AIDS had ravaged Haya villages, killing many men of knowledge, severely eroding chains of transmission. It matters to whom we listen; an archaeologist needs to seek to hear both women and men, ritual-keepers and farmers, pillars of society and those on the edges.

Jonathan Walz, also working in Tanzania, sought out healers who used old caravan routes to make pilgrimages to the sea. Ancestors and other spirits are heard at named places along the route, as the healers collect medicine ingredients there. To heal, practitioners articulate these places during their performances with the medicines; thus the routes remain in memory. These healers, who—like archaeologists—possess a fine-grained understanding of antiquity and its transformative properties, quickly identify alterity in their collections; in other words, they have specific objects in mind and know where to locate them. Walz also found archaeological evidence of the surprising antiquity of the routes, proving that the hinterland and the Indian Ocean coast have been networked for more than a thousand years, being linked well before the Swahili florescence and later colonial period.

We present these cases of archaeologies of listening to our SAA colleagues, as testaments of practice that strengthen as they broaden the empirical base of archaeological interpretations. Ethnographic analogies are good, indeed essential; listening to people who live at our sites, or are descendants, goes beyond analogies to touch the realities of the different lives so important for an anthropological archaeology.

References Cited

Atalay, Sonya

2012 Community-Based Archaeology: Research With, By, and For Indigenous and Local Communities. University of California Press, Berkeley.

Bourdieu, Pierre


Colwell-Chanthaphonh, Chip, and T. J. Ferguson


Miller, Robert J.

2008 Native America, Discovered and Conquered. University of Nebraska Press, Lincoln.

Miller, Robert J., Jacinta Ruru, Larissa Behrendt, and Tracey Lindberg


Schmidt, Peter R.


Schmidt, Peter R., and Stephen Mrozowski (editors)


Schmidt, Peter R., and Innocent Pikirayi (editors)


Schmidt, Peter R.


Simpson, George Gaylord


Turner, Derek


Notes

1. Kathryn Weedman Arthur suggested this phrase during our discussions at Timber Cove, California.

2. Inference to the Best Explanation; the acronym is often used by philosophers of science.
An Ethnoarchaeology of Deep Listening

Is it only through the masculinized actions of striking, hammering, and pressing that otherwise silent stones emanate sound? Entrenched in Western ontology, archaeologists largely perceive that stone is a nonliving being; it is inconceivable that stones can actually speak. A stone tool communicates with us only when we engage our minds to see through what we observe concerning the tool: its location in the horizontal and vertical substrate, the stone’s association with other objects and features, and the stone’s shape, raw material, color, and texture. All these bits of knowledge we reconcile to conjure up an understanding of ourselves living in another time and space. We yearn for the tool to speak in a voice that resonates with a semblance of our present-day selves and our way of knowing the world. As archaeologists we tend to be culture-bound listeners (Kuhl 2004): by this I mean that in our archaeological investigations of the past we tend to perceive a past that is bound by our culture and validates our understanding of the world; in our ethnoarchaeologies, the diversity we claim to seek in present-day materials is silenced and bound in the continued effort to validate our academic theories. A growing number of archaeologists are beginning to listen more carefully, to engage descendant communities and privilege their ways of knowing the world. As archaeologists we tend to be culture-bound listeners (Kuhl 2004): by this I mean that in our archaeological investigations of the past we tend to perceive a past that is bound by our culture and validates our understanding of the world; in our ethnoarchaeologies, the diversity we claim to seek in present-day materials is silenced and bound in the continued effort to validate our academic theories. A growing number of archaeologists are beginning to listen more carefully, to engage descendant communities and privilege their ways of knowing the world.

Twenty years ago when I began to study lithic practices of the Boreda of southern Ethiopia, I was a culture-bound listener and practitioner of ethnoarchaeology. My goals mimicked methodologies of the era in that I observed Boreda lithic practices and behaviors to test “universally” held Western archaeological theories and academic approaches concerning style, function, and agency (Weedman 2006).

Universalizing knowledge and practice endangers the context and realities in which technologies actually exist, as well as our capacity to learn and grow our knowledge of technology. Eventually, bit by bit, I learned from the Boreda that learning is a longitudinal process that requires decades, even a lifetime, of working with a particular community. Ethnoarchaeologists need to build rapport and status and, most of all, be willing to completely humble themselves and acknowledge community members as the experts and teachers. Only those willing to listen have the potential to achieve cultural and historical competency and access to a society’s deepest ontologies or theories of reality. Technological practices and ideas must be situated in historical and ethnographic references related to the deepest level of a society’s ontology. Science practiced with the goal of subsuming other aspects of reality is “methodological imperialism” (Gonzalez 2012). Without seeking deeper ontological perspectives, we will never break free of our own ways of knowing the world, produce new knowledge, and truly respect people’s intellectual ability to create valuable theories of reality about their world (Smith 1999).

For many Boreda knappers, stones are living entities that demand proper care and attention and emanate a light or tome when they are ready to be birthed. When I asked a Boreda knapper (Figure 1) how he knows a good stone to select, he said that he can hear the stone when he tekata, the Boreda word for snapping or cutting—literally it means to protect a stone; the stone speaks Odetsa, an argot, secret ritualized language of the Boreda leatherworkers, and the term means to speak in a way that will force others to listen. The Boreda indigenous theory of being recognizes all entities—humans, earth, rain, stones, snakes, trees—as vital, living, sentient beings with an essence or life force.

For many Boreda, stones speak and exhibit change and a life cycle and as such they require proper care by knappers who apprentice themselves for at least 10 years of listening, observing, learning, and practicing in the presence of experts. As a living entity, stone should be birthed with the assistance of women; instead, male leatherworkers birth stone. Men appropriate women’s roles as midwives, and thus male knapping-leatherworkers and their families hold a low status and are segregated spatially and socially in Boreda society. The Boreda indigenous ontology creates a standpoint that is completely contrary to the long-held Western one that associates knapping with an inert object manipulated by a male knapper.

We need to move beyond presenting ethnoarchaeologies that obscure other ways of knowing by recategorizing them in our own ontologies, as doing so contributes to substantial loss of knowledge and undermines a people’s intellectual contributions for understanding the world, processes, and practices. Listening creates space for connecting people to the past, present, and future. It is a conscious skill that requires understanding the silences and sounds that come through long-term engagement in participatory research. When people feel heard and connected, a path to relieve their dissonance with foreign “science” is opened; a responsible
listener mitigates power and privilege. A responsible listener understands that there is always more to learn.

References

Atalay, Sonya
2012 Community-Based Archaeology: Research with, by and for Indigenous and Local Communities. University of California Press, Berkeley.

Gonzalez, Wenceslao J.

Kuhl, Patricia K.

Smith, Linda Tuhiwai

Watkins, Joe
2000 Indigenous Archaeology: American Indian Values and Scientific Practice. AltaMira, Walnut Creek, CA.

Weedman, Kathryn J.

—I Kathryn Weedman Arthur, Associate Professor, University of South Florida St. Petersburg

Listening to the Late-Nineteenth Century Jesup North Pacific Expedition to the British Columbia Plateau

I have worked doing archaeology in the Pacific Northwest Interior Plateau of British Columbia since the 1970s. Throughout various informal discussions, I have encountered reluctance on the part of some people to embrace archaeology as a worthwhile endeavor, and I have been curious about this general lack of enthusiasm for my profession. Archaeologists, after all, are among the few individuals outside of indigenous communities who are genuinely committed to understanding, respecting, and protecting aboriginal culture. In 1999, I searched the field records of Harlan I. Smith at the American Museum of Natural History. The first archaeologist to work in British Columbia, Smith was on the Coast and in the Interior Plateau for three field seasons (1897–1899), under the direction of Franz Boas. Trying to listen to potential unheard voices—Smith's informants—I gained a broader understanding of indigenous Plateau peoples' reluctance about archaeology (Carlson 2005; see also Thom 2000, 2001).

Archaeology in North America’s Pacific Northwest region largely began with pioneering fieldwork in British Columbia during Franz Boas’ Jesup North Pacific Expedition (1897–1902), focusing there on two culture areas, Northwest Coast and Interior Plateau. The expedition involved ethnographic, linguistic, biological, and archaeological data collection from indigenous peoples. Boas hired Harlan I. Smith to direct the archaeological fieldwork, and their methods of field practice and subsequent publications influenced the development of the discipline of anthropology in North America (Carlson 2005; Freed 2012; Thom 2000, 2001). Certain aspects of this early “Boasian tradition” set the stage for how indigenous peoples in British Columbia view archaeology even today. Letters that Smith wrote to Boas provide an unedited, informal account of archaeology’s beginnings in British Columbia, describing its challenges to the early practice of “scientific” archaeology in North America. They also provide insight into working relations with aboriginal communities, who were themselves introduced to archaeology at this time.

Harlan I. Smith focused his three years of fieldwork in the Interior Plateau in the Thompson River Valley between Kamloops and Lytton, but also worked along the Lillooet River, and on the lower Fraser River at the coast, with Secwepemc (Shuswap), Nlaka’pamux (Thompson), St’a:’lmc (Lillooet), and Halkomelem (Coast Salish). In 1899, his third field sea-
son, Smith traveled to the Nicola Valley and brought copies of his monograph “Archaeology of Lytton” (Smith 1899) with him to show drawings of artifacts to elders from several communities, for interpretation. Smith wrote from the field to Boas that “I have shown the Lytton Memoir to Indians and have gotten nearly all doubtful points explained.” These interpretations were then published in Smith’s later Thompson River (1900) Memoir, as Appendix II. Smith wrote that the interpretive information was obtained from “Baptiste, an old Indian shaman living in the valley; Michel, an intelligent old Indian of Lytton; Salicte, chief at Nicola Lake; and the brothers of the last named” (Smith 1900:440). For example, he showed them a particular artifact which,

This Baptiste considered to represent an unfinished pipe. The theory seems plausible, although the pipe would have been very small. Michel of Lyton thought it represented a small hammer, to be hafted in a little handle and used by a slave or servant to crush food for a rich and toothless old person. (Smith 1900:440)

Another example was an artifact that,

Baptiste and Mr. Teit agree was undoubtedly used for such purposes as chipping arrow-points, carving wood, and cutting out steatite pipes. They were not impressed with the opinion of Michel of Lyton, that it was used for cutting nephrite. (Smith 1900:440–441)

Listening to sometimes differing or conflicting interpretations about material culture by individual community members creates a layer of complexity to the listening process that Smith could only present as an appendix to a collateral volume.

Whereas “listening” to the chiefs and elders about their interpretations of various artifacts of material culture was part of Harlan Smith’s work, he also heard community concerns around the excavation and removal of burials. At Kamloops in 1897, he met with both the Chief of the Band, Chief Louie, and the local missionary, Father Le Jeune. In a postcard to Boas, Smith writes:

Dr. Boas, Indians here object to my taking bones away—They are friendly & will allow me to dig graves & take all but the bones. I have seen [the Indian] agent, and Indians are on the fence. We hope they will change their minds & allow bones to go to N.Y. for study not for joke as they fear. (H. I. Smith to F. Boas, unpublished letter, 1897, American Museum of Natural History, New York)

The next letter in the files is from the town of Lytton where Smith describes how the issue of removing bones was resolved there with the help of the priest:

Both here [Lytton] and at Kamloops the site of work is on Indian reserves—at both places I was welcome to take stone, shell etc. but refused human bones. At Kamloops they, after holding a big council where my side was presented by the Priest [Le Jeune], telling them I came to get things to use to teach the people in N.Y. decided to let me have a few bones to teach with but I must cover up all I did not take so no bad white men would take them to make fun of the Indians. (H. I. Smith to F. Boas, unpublished letter, 1897, American Museum of Natural History, New York)

In the 1899 fieldwork at Lillooet on the Fraser River, Smith wrote to Boas about obtaining 16 skeletons, informing him of the secretive nature of his collecting: “By taking skeletons out on backs we got them out without Indians realizing the bulk & so free from objections but when the Indians return from fishing it would not be pleasant to be here” (Smith 1899).

Later in the season, Smith wrote again to Boas on various matters, including re-visiting the problem of recovering the skeletons in the Lillooet Valley:

...I consider that no trouble will arise from my work up the Lillooet, and yet as the work was done while only a few Indians were there, those who were absent and have since returned, might object. Those that were present did not comfort me much, and I feel that I would rather let the matter be digested by them before taking up more extensive archaeological studies which must of necessity to careful work and preservation of specimens be done more openly. The skeletons I collected there and at other places are evidence that I am not trying to get out of running some risks on small insurance. (H. I. Smith to F. Boas, unpublished letter, September 16, 1899, American Museum of Natural History, New York).

During the process of transforming field records into “scientific” publications, local views and interpretations disappeared in the final authoritative texts. The published material is largely descriptive, fitting the emerging dispassionate scientific discourse of the time, intended to persuasively classify and describe the natural world with accuracy, formality, and authority (Figure 1); “listening” to communities was not acknowledged within that process. Whether
Smith sent copies of the published Memoirs to the chiefs of the villages isn’t known; his 1913 monograph notes only that, “Over one hundred copies [of the Memoirs] were given to leading libraries and learned societies in all the great countries of the world” (Smith 1913:4).

The Jesup Expedition has had a lasting legacy, as indigenous peoples of the Plateau still regard archaeology with suspicion and concern, despite the best efforts of modern archaeologists to convince them otherwise. Ironically, Harlan I. Smith listened intently to aboriginal people in the communities where he worked, despite his lack of linguistic facility, but his listening was subordinated to the authoritative memoirs published for learned scholars.

References

—Catherine C. Carlson, Senior Research Fellow, School of Humanities and Creative Arts, Flinders University, and Senior Archaeology Manager, Inlailawatash Limited Partnership, British Columbia

Continuing Writings on Stone
O ki, nitaaniko Ikkinainihkii. Niisto Akainaakii kii Akaipookaa. I was raised on the Blood Reserve in Alberta, Canada. I come from the Many Children clan and my father has always said we are mountain people. I am very fortunate in that I was raised hearing Blackfoot spoken in the home and being told the oral traditions of Siksikaisitapii. My father has always shown an interest in archaeology and would often talk to me about what he had read in a book and how it complemented, or contradicted, the traditional knowledge he knew. He would often bring my siblings and me to sacred sites on the landscape and stress how important it is for us to know who we are and where we come from.

I remember the first time he brought me to Áísínai’pi to see Ksiksikomiiipiksii, the Thunderbird pictograph. We arrived at the park through the main entrance and immediately I was awestruck by the landscape Isttipatapiipiyapi created: the strangely shaped hoodoos, Kaatoys (Sweetgrass Hills) dominating the southern horizon, and the steep sandstone cliffs on which the history of my people has been recorded for millennia. By this time the park already had a long tradition of allowing Blackfoot descendants to enter the restricted area and consult with the rock art. As I watched my father interact with the lead interpreter, it was clear to me that park employ-
ees did not see themselves as being courteous enough to give permission to enter; instead they viewed it as Nitsitapiiksi being courteous enough to let the park know when they would be accessing the site.

I had no way of knowing at the time that I would one day work as an interpreter at Áísínai'pi and would be sharing the knowledge I learned from my parents and Elders. When I first began as an intern at the park in 2015, I was given the task of managing the Writing-on-Stone / Áísínai'pi Rock Art Monitoring Program. The program requires visitation of all rock art sites to determine the amount of natural and human impact, and whether this affects the integrity of the images (Figure 1). When a site is visited, an Archaeological Site Inventory Form is updated, coordinates are collected/confirmed, baseline tracings are annotated, and a photographic record is taken.

Writing-on-Stone / Áísínai’pi is credited as having the largest concentration of rock art in the northwestern plains (Keyser 1977). The site sits within the Milk River formation, which is described as a very weak, closely jointed and fractured, Cretaceous-aged sandstone composed mainly of quartz grains weakly cemented in a clay matrix (Campbell 1991). This means the fragile sandstone is constantly at risk of erosion, causing the loss of valuable rock art images. Park management conducts annual meetings with the Mookaakin Cultural Heritage Society, a group of Elders from the Blood Reserve who offer advice and guidance on site management.

I was fortunate enough to be a part of these meetings where the Elders made it very clear that the rock art is meant to erode away naturally; it is not considered practical to try and preserve the rock art through invasive means such as Conservare OH (Brink 2007).

These conversations made me realize that if nothing is done, eventually the images at Áísínai’pi will no longer be there to help guide future generations of Nitsitapiiksi. Knowing that conservation of existing sites is not entirely culturally appropriate, I came to the conclusion that the only way to ensure the survival of rock art is to encourage and promote the continuation of making rock art. This view is also shared by some Elders of the Blackfoot community (Brink and Blood 2008). One member of the Blood Tribe, who is a War Veteran, making him an Elder in his own right, expressed his desire to one day travel to Áísínai’pi and carve a record of his war deeds that took place over forty years ago. This individual does not see this as an act of vandalism or disrespect to the site; on the contrary, he sees it as an inherent right and a continuation of the record of a whole people.

Since the summer of 2015, I have been crafting Ceremonial Access Protocols to be used by the staff of Writing-on-Stone Provincial Park. This document outlines the appropriate steps for staff to take when a Blackfoot person requests to hold a ceremony within the park boundary. Besides sweat lodges, bundle openings, vision quests, and collecting plants, the document also addresses possible requests for making rock formations/effigies and making new rock art. The document explicitly states that the integrity of existing rock art images will not be compromised. The person making the request will be guided to an area void of rock art.

Since the summer of 2015, I have been crafting Ceremonial Access Protocols to be used by the staff of Writing-on-Stone Provincial Park. This document outlines the appropriate steps for staff to take when a Blackfoot person requests to hold a ceremony within the park boundary. Besides sweat lodges, bundle openings, vision quests, and collecting plants, the document also addresses possible requests for making rock formations/effigies and making new rock art. The document explicitly states that the integrity of existing rock art images will not be compromised. The person making the request will be guided to an area void of rock art.

Since the summer of 2015, I have been crafting Ceremonial Access Protocols to be used by the staff of Writing-on-Stone Provincial Park. This document outlines the appropriate steps for staff to take when a Blackfoot person requests to hold a ceremony within the park boundary. Besides sweat lodges, bundle openings, vision quests, and collecting plants, the document also addresses possible requests for making rock formations/effigies and making new rock art. The document explicitly states that the integrity of existing rock art images will not be compromised. The person making the request will be guided to an area void of rock art.

Since the summer of 2015, I have been crafting Ceremonial Access Protocols to be used by the staff of Writing-on-Stone Provincial Park. This document outlines the appropriate steps for staff to take when a Blackfoot person requests to hold a ceremony within the park boundary. Besides sweat lodges, bundle openings, vision quests, and collecting plants, the document also addresses possible requests for making rock formations/effigies and making new rock art. The document explicitly states that the integrity of existing rock art images will not be compromised. The person making the request will be guided to an area void of rock art.

Since the summer of 2015, I have been crafting Ceremonial Access Protocols to be used by the staff of Writing-on-Stone Provincial Park. This document outlines the appropriate steps for staff to take when a Blackfoot person requests to hold a ceremony within the park boundary. Besides sweat lodges, bundle openings, vision quests, and collecting plants, the document also addresses possible requests for making rock formations/effigies and making new rock art. The document explicitly states that the integrity of existing rock art images will not be compromised. The person making the request will be guided to an area void of rock art.

Since the summer of 2015, I have been crafting Ceremonial Access Protocols to be used by the staff of Writing-on-Stone Provincial Park. This document outlines the appropriate steps for staff to take when a Blackfoot person requests to hold a ceremony within the park boundary. Besides sweat lodges, bundle openings, vision quests, and collecting plants, the document also addresses possible requests for making rock formations/effigies and making new rock art. The document explicitly states that the integrity of existing rock art images will not be compromised. The person making the request will be guided to an area void of rock art.
where they can leave their image. If the artist is willing, the park will gather personal information about the individual as well as information regarding their image (GPS coordinates, the image that was created, and the meaning/story behind the image).

Understandably, as with all things new, the making of contemporary rock art has caused some apprehension within the local archaeological community. According to current provincial policies, if Siksikaisitapiksi practiced the traditional act of making rock art, they could be fined and/or face incarceration. At this time of writing, March 2017, the document is being reviewed by multiple ministries of the Alberta Government, a slow and arduous process. I knew this would not be an easy task when I first pursued the possibility, yet I could not see that as an excuse not to attempt it. The topic of making contemporary rock art will not go away anytime soon because Siksikaisitapiii and the culture are not going away (Figure 2).

References

—Camina Weasel Moccasin, Manager, Writing-on-Stone/Áísínai’pi Rock Art Monitoring Program, Alberta, Canada

Sigiriya Rock: Global Heritage Commodified, Local Heritage Forgotten

Sigiriya is one of the most important archaeological sites in Sri Lanka, a hugely popular attraction that draws both local and international visitors. This fifth-century palace and its gardens entered the annals of archaeology in the late nineteenth century, and its preservation and management have remained at the forefront of Sri Lanka’s archaeological agenda to this day.

Sigiriya is one of the most majestic and complex World Heritage Sites in Asia. Located in central Sri Lanka, the primary fifth-century site is an extraordinary example of town planning, garden designing, architecture, hydraulic engineering, and wall-painting traditions. The apex of the site is a royal palace located on the summit of a monolith rising about 165 meters above the surrounding plain. The royal complex consists of the palace, water gardens, and ritual and administrative buildings that are buttressed by a series of massive earth ramparts, wide moats, and entrance gateways. The Royal Pleasure Gardens are considered to be the earliest surviving landscaped gardens in Asia and are serviced by an ingenious system of hydraulic engineering. The wall paintings on the western façade of the rock are the finest ancient murals in Sri Lanka.

Sigiriya was designated as a World Cultural Heritage Site under UNESCO guidelines in 1982. Since then, the Central Cultural Fund of Sri Lanka has been carrying out archaeological inquiries and heritage management for the site. Sigiriya’s nomination and designation as a World Heritage Site was a process controlled and restricted to professional archaeologists and heritage experts. It is a powerful example of the Authorized Heritage Discourse in action, with experts holding all the power over its management, development, and interpretation.

Sigiriya’s inscription came at a time when there was a rush to designate sites and when management plans required by UNESCO were either poorly implemented or not implemented at all. This haste has carried with it both advantages and disadvantages. On the one hand, the economic advantages of designation are enormous—high numbers of foreign visitors, along with high admission fees for them, have been a bonanza for the Central Cultural Fund. Yet little infrastructural investment has been earmarked to enhance the visitor experience, and little effort made to enforce the originally demarked buffer zones. More serious is the failure to
implement a mandated management plan; in addition to uncontrolled growth of development activities around the site, this has led to commercial intrusions into the site as well as unrestricted commercial development in surrounding villages, a crisis that local citizens find alarming.

These trends are contrary to the objectives of the original development plan, which highlighted the importance of aligning archaeology with contemporary living culture and the heritage values of Sigiriya stakeholders in both urban and rural environments. Specific plans to link surrounding communities and their economic aspirations, as well as their heritage traditions, with Sigiriya World Heritage Site have long been forgotten, at significant cost. There are many reasons for this oversight, but it mainly derives from the way we think about heritage management—managing heritage as the prerogative of the heritage experts, with the associated communities and other stakeholders acting as passive recipients of the experts’ “scientific” decisions and procedures.

Inclusion—the premise upon which this current management plan is built—is not manifest in any engagement with an integrated approach involving villagers, local leaders, village youth, heritage practitioners, craft-specialists, hoteliers, guest house owners, vendors, guides, tourist helpers, monks of village temples, and government officials. Since Sigiriya was inscribed, stakeholders have been mostly ignored. Inclusiveness later became a mandate of UNESCO guidelines for World Heritage Sites, requiring that cultural, social, economic, and demographic components be engaged, not just the inscribed site. Those mandates were not applied to Sigiriya.

To better understand which local values have been overwhelmed by a central bureaucracy and the laissez-faire approach of Sri Lanka managers in service of enhancing the presentation of heritage (e.g., excavations and restoration), we conducted interviews during March of 2016 among villagers living on the margins of Sigiriya. While many local people derive their livelihoods from tourism and from employment at the site, they nonetheless remain seriously marginalized in terms of its management and the interpretation of Sigiriya values. Local people poignantly express this alienation, viewing the site as “a rock” that has little relevance to their heritage. One elder observed, “Sigiriya is much more than the rock. It is the rock and everything around it.” As we listened to villagers talk about their lives, their visions, and their heritage, we more profoundly came to comprehend the heritage contributions of those living in greater Sigiriya.

Listening to snakebite healers (Figure 1), to healers of eye injuries, to basket weavers and carvers, we learned of their alienation from the central administrative and interpretative apparatus, but also their strong optimism about helping to solve some of their contemporary heritage problems. Snakebite healers serve one of the most important community functions, given the very high incidence of snakebite. Still highly valued, though meagerly compensated, they see their offspring attracted to other lives and thus seriously worry about their abilities to pass on their heritage knowledge. A wise healer of eye injury and former postman mused that the real heritage of Sigiriya was the very land on which they lived and carried out their daily lives—the village settlement, paddies, and forests with their extraordinary array of reservoirs and irrigation systems developed some 1,400 years ago. They continue to manage this complex system of water allocation, and moreover express deep concern about the knowledge systems being adequately passed on to future generations. Collectively, they see informed heritage tours of their landscape and its innovative technology as a form of substantive ecotourism with deep historical depth.

Other discussions centered on the improvement of policymaking and administration, with strong feelings about a local council charged with advising and participating in the Sigiriya management council. As we listened to these local heritage discourses, we learned that many see the decay of their cultural heritage and historic landscapes, as evidenced by the following: 1) inappropriate new developments disrespecting cultural heritage; 2) destruction of historic forest areas and heritage landscapes due to unregulated economic
ventures; 3) invasion of mass tourism displacing local inhabitants; and 4) congestion and visual contamination of historic areas by inappropriate structures inside villages, particularly those lodging visitors but also harboring prostitution.

People wanted accelerated participation and adoption of a more comprehensive heritage umbrella for Sigiriya. They saw healing knowledge, in particular, as a possible vehicle for public education of students and visitors, a way of integrating the Sigiriya botanical gardens with local knowledge-keepers, and a means of training a younger generation in their healing heritage. These diverse heritage perspectives—some with significant economic and cultural implications—are to be central principles in future management of the greater Sigiriya Heritage Site. Thus, listening changes our heritage management philosophy; it grows knowledge from diversity, accepting the wisdom and guidance of indigenous knowledge and leaving behind practices that have marginalized and alienated local life.

—Jagath Weerasinghe, Senior Lecturer, Post-Graduate Institute of Archeology, University of Kelaniya, Sri Lanka.

Peter R. Schmidt, Professor of Anthropology, University of Florida–Gainesville

**Ethics, Empirical Honesty, and Listening for the Future: Embedding an Archaeology of Listening in Conflict Transformation**

An archaeology of listening is relevant for all archaeological practice, not only in settings where Western-trained archaeologists are working with indigenous communities in postcolonial settings. An archaeology of listening is not only about changing postcolonial equations and challenging the hegemony of Western science. An archaeology of listening is not an uncritical archaeology: It is more fundamentally about respect, including listening to those we may not personally wish to hear.

Sometimes what we hear from one community or one group or one person contradicts what we hear from another. In such situations, choices are made, choices which must, one way or another, balance a responsibility to the lives of people in the past, in the present, and perhaps most crucially, in the future. An archaeology of listening is not just about listening, and hearing, but also acting. We act upon what we hear and understand, which often requires difficult ethical choices. Self-reflection, and honesty with ourselves and with those with whom we work, are essential.

My work in Northern Ireland addresses issues of ethics and empirical honesty, testing the potential for archaeology to be socially valuable for conflict-easing and transformation. In Northern Ireland there is a critical balance of power between two communities in conflict. The vast majority of conflict situations involve asymmetrical power relations, making it easier for archaeologists concerned with righting historic wrongs to select a ‘side’—particularly when focused upon challenging Western values and addressing historical legacies. This is not so clear-cut in Northern Ireland where there are two demographically equivalent factions, each of which self-identifies as an oppressed minority, and each of which uses historical events to bolster that identity and, by extension, reify present-day division. This aspect of the Northern Ireland conflict creates particular challenges and raises questions highly relevant to developing the practice of an archaeology of listening, expanding from places and spaces where situations may seem more straightforward.

The centrality of archaeological evidence, its power, is crucial in discussions about listening. An archaeology of listening is not a repudiation of Western historical and scientific tradition. We must listen to the empirical data as much as we listen to informants and peers, and ensure that as we take on the responsibility of telling stories, that those stories are grounded in evidence, an honesty about adhering to and upholding aspects of Western historical science. At the same time, as we recognise that we make choices, those choices must be rooted in a pragmatic approach that seeks to do no...
harm in the present and aspires to contribute to a better future.

Negotiating the politics of the present while staying true to the evidence of the past is the central challenge of responsible, ethically engaged archaeological practice. Drawing from ongoing efforts to engage archaeology as an integral part of peace building in post-Troubles Northern Ireland (Figure 1), I came to recognize both the risks and the rewards of collaborative cross-community practice. Positioning archaeology as an element bridging Northern Ireland’s sectarian divide requires an ability to not only listen, but also to hear and respect the strength of personal and community narratives, even when those narratives may be founded upon fundamental misunderstandings or misrepresentations of the past. Engaging people in the present with archaeological evidence from the contested seventeenth-century plantation period, when Britain extended colonial control over the north of Ireland, carries considerable risk; destabilising long-held narratives can render our community collaborators anxious and sometimes angry. Working with trained facilitators and peace negotiators—people who have been professionally trained to listen and to hear and encourage others to do the same—is emerging as a productive approach to utilizing an empirically honest archaeology within conflict transformation. Archaeological practice that prioritizes listening can work towards the creation and maintenance of a stable, shared society.

—Audrey Hornung, Professor of Anthropology, College of William and Mary, USA, and Professor of Archaeology and Fellow, Senator George J. Mitchell Institute for Global Peace, Security and Justice, Queen’s University Belfast, Northern Ireland

Listening and Learning: The Benefits of Collaborative Archaeology

The original aim of the Hassanamesit Woods Project was to find archaeological evidence of the seventeenth-century community of Hassanamisco. This was one of the seven “Praying Indian” communities supposedly established by English missionary John Eliot. What we found was a later manifestation of that community dating to the mid-eighteenth to mid-nineteenth century. The Nipmuc households that were the focus of our research were the ancestors of today’s Nipmuc community, including tribal elders, tribal council members, and, most critically, the Tribal Historic Preservation Officer (THPO) at the time, Rae Gould. Through a rather organic process, the archaeology of Hassanamesit Woods was joined with the research that Rae was carrying out at the current Hassanamisco Reservation in Grafton. As a descendent of that community, Rae was uniquely situated to examine the deep connections between today’s Nipmuc community and its long history in the area (Gould 2010; 2013a, 2013b). While there were formal elements of our collaboration, it was a more casual comment that she made that held even deeper implications for the research aims of the project. While we were working on a joint presentation, she asked why I continued to say that the seventeenth-century “Praying Indian” communities of Massachusetts and Connecticut had been “established” by John Eliot. That was, and generally remains, the view of most historians and archaeologists. Her question raised two important points. First, it questioned the veracity of the English portraits of “Praying Indian” towns and why it was advantageous for Eliot to claim that these new communities represented a clear break with the long-standing Native communities present when the English first arrived.

Her second point was more profound: Just what constitutes community? I was looking at “community” in the same way that the English had, assuming, incorrectly, that the space these communities inhabited was new to the Nipmuc families who had lived in the area for generations. I had privileged the written English descriptions of what continued to be indigenous space. The Bureau of Indian Affairs has taken a similar position in giving greater legal veracity to written evidence over that of oral history or archaeology. So in a single question, Rae moved me to pause and reflect about my own biases and assumptions. As a result, the questions driving our research changed, but only in a subtle manner and one that was very much in keeping with rather traditional archaeological practice. In addition to finding solid evidence of the survivance of indigenous cultural practices along with the adoption of some forms of English material culture and technology, the overall interpretation of our research at the Sarah Burnee/Sarah Boston farmstead (circa 1750–1840; see Mrozowski and Law Pezzarossi 2015) is that the site served as a community gathering place that remained highly stable...
for more than 100 years (Figure 1). When combined with the work carried out at the Nipmuc Reservations by Rae Gould, it was possible to argue that the Hassanamisco Nipmuc used their homes as social and political gathering places that involved communal events. This was based on sound chronological evidence that showed the movement of the political center from one property to the current reservation during the middle of the nineteenth century. Our empirical evidence of continuous occupations not only supports the Nipmuc claim of political continuity—something archaeology does quite well by employing standard archaeological methods and interpretation—but also addresses deeper historical questions of cultural resiliency vis-à-vis notions of survivance.

Such discussions raised as a part of collaboration had a salutary impact on the questions we posed and our interpretation of our results. Concerted efforts by archaeologists during the 1980s to discover contact-era Indian communities had proven fruitless, forcing some to ask why these well-documented communities had such low archaeological visibility. Combining results from the Christian Indian communities of Magunkaquoq and Hassanamisco, research has provided a wealth of detail about Nipmuc daily life as well as strong evidence of cultural dynamism and continuity. Reimagining the seventeenth-century “Praying Indian” towns as much older communities presented a picture that countered the notion of historical rupture that had influenced my own perceptions of that past. It led me to realize the falsehood embedded in the idea of prehistory as constituting a period severed from the more recent past and the need for its abandonment (see Schmidt and Mrozowski 2013). The highly productive scholarly collaboration between Rae Gould, as Nipmuc THPO, and Hassanamesit Woods Project members illuminated local Nipmuc residence patterns, enabled a new Nipmuc appeal for federal recognition, and paved the way for a book, to be published by University Press of Florida, that chronicles both the history of the project and its resulting new narrative of the Hassanamisco community and Nipmuc history (see also Gould 2010, 2013a, 2013b; Mrozowski et al. 2009; Mrozowski et al. 2015; Mrozowski and Law Pezzarossi 2015).

References

Gould, Rae
Mrozowski, Stephen A., Holly Herbst, David Brown, and Katherine L. Priddy
Mrozowski, Stephen A., D. Rae Gould, and Heather Law Pezzarossi
Mrozowski, Stephen A., and Heather Law Pezzarossi (editors)
Lessons Learned from Listening

"Archaeology" is how we learn what happened in the past, while "heritage" is that set of values given to objects, places, and information derived from archaeology and other means. If we seek to achieve an ethical, responsible, and representative archaeology, then we need to tune our ears to what is going on with archaeology's relationship with community-oriented heritage research and preservation.

The values that descendant communities place on heritage objects and places have historically been eclipsed by science-oriented approaches to the archaeological record. This has promoted a scientific agenda that has shortchanged the descendant communities (especially Indigenous ones) whose heritage it is. Yet understanding local values is vital to making decisions about the protection of both their tangible and intangible heritage, and the knowledge derived from it. Learning to listen to the community must therefore be a part of the archaeologist's tool kit. While so-called traditional knowledge may be quite different from scientific knowledge in some regards, it is not necessarily incompatible. Indeed it has a unique and indispensable role in valuing heritage and deciding on the best care for heritage objects and places.

Generally it is the intangible aspects of heritage that are most important to descendant communities, in terms of well-being, identity, spirituality, and history. For Indigenous peoples in particular, there may be no difference between the place and the stories and knowledge that location holds, nor between an object and the historical continuity it may reflect or the social obligations it may convey. Not considering local voices and perspectives tends to perpetuate Western expectations (and misunderstandings) about heritage and what it means, rather than learning new things about decidedly non-Western ways of life, both past and present. Without engaging with community members, both archaeological inquiry and heritage management policies remain incomplete, if not skewed to outsiders' interests. Care and “management” of other people's heritage (including determination of significance) thus imposes great responsibility on archaeologists.

To illustrate the value of what can be learned from Indigenous community members, I turn to efforts undertaken by the Intellectual Property Issues in Cultural Heritage, or IPinCH, project (www.sfu.ca/ipinch), an international project that I directed (2008–2016) (Figure 1). The mission of IPinCH was to work to develop or implement equitable practices in heritage protection and information sharing, to improve government heritage policies by education or intervention, to counter commercialization of heritage, and to develop educational resources for researchers, Indigenous groups, policy makers, and the public. In order to help develop a fuller understanding of local conceptions of heritage ownership and rights, IPinCH funded 14 community-directed projects in Canada, the United States, Australia, New Zealand, Kyrgyzstan, and elsewhere. In each case, community values and needs were foregrounded in a locally based research process; studies were identified by and co-designed with the community, which benefited directly; and the community reviewed research products and data to determine what information could be shared, and retained full control of each project. For example:

- In northwestern Canada, community-based research was conducted to identify the nature of heritage from the perspectives of four participating Yukon First Nations: the Champagne and Aishihik First Nations, the Carcross/Tagish First Nation, the T'aa'gan Council, and the T'fondék Hwêch'in First Nation. Goals included 1) documenting how “heritage value” is defined by Yukon First Nations Elders, heritage workers, youth, and other members; 2) determining who (individuals, families, clans, governments, organizations) has stewardship responsibility for the different aspects of Yukon First Nations heritage; and 3) identifying the values, norms, laws, or practices that may affect heritage resources as well as management practices by self-governing Yukon First Nations (Carcross/Tagish First Nation et al. 2016:2). Information was obtained through interviews, small focus-group discussions, and a workshop with individuals and cultural workers within the Yukon First Nation communities, along with youth and Elders.

- The Penobscot Indian Nation of Maine, working with partners at the University of Massachusetts–Amherst, developed tribal protocols, tools, and organizational structures to address intellectual property issues related to archaeology and heritage-based places. Key outcomes included 1) a proposed tribal infrastructure for managing...
Penobscot intellectual property and a certification process for certifying archaeologists to work on tribal lands; 2) a process to better educate or help researchers understand Penobscot culture and intellectual property issues; and 3) an institutionalized management plan for Penobscot archaeological information (Newson et al. 2014).

• The “Grassroots Resource Preservation and Management in Kyrgyzstan” project, led by Aida Abdykanova and Anne Pyburn, developed a set of heritage preservation and education projects designed by citizens of the Kyrgyz Republic. These included 1) creating a management plan for an internationally significant heritage site that is an ancient architectural masterpiece as well as spiritually significant; 2) preserving oral traditions unknown to the younger generations of Kyrgyz by reconnecting youth to their heritage and inspiring them to be better stewards by means of teaching workshops, tool kits, and videos; and 3) developing plans to develop and promote cultural tourism in ways that promote but also protect important heritage places. Each project emanated from local interests and desires.

Other initiatives focused on preserving local values within cultural tourism, developing protocols for research on human remains, repatriating information (not objects) from museum collections, capturing the history of tribal efforts to preserve intellectual property, developing a co-management plan for an important spiritual place, and developing a cultural knowledge database for recording Elders’ traditional knowledge in an Indigenous methodological and ethical framework. Many projects involved both youth and Elders.

Each of the communities involved with these and the other IPinCH-funded initiatives identified different issues, strategies, and solutions regarding heritage concerns. This underscores the fact that “heritage” is complex and multifaceted, as well as culturally and sometimes politically contingent—there is more than a trace of historical particularism to consider here. Reformulating ethnographic and archaeological research goals to foreground community needs thus requires both a fuller and deeper understanding of “heritage” (including its intangible elements), and an ability to identify more effective and satisfying heritage management methods. Doing so ensures that descendant communities benefit from research on their heritage, while also contributing to a more relevant and responsible archaeology. As Kyrgyz team co-leader Aida Abdykanova notes, “the process of communication with local communities is one of the essential values... I have to value and understand the concept of cultural heritage, in order to share your knowledge and conviction” (Abdykanova et al. 2016:46).

Figure 1: George Nicholas, center right, and Joe Watkins, back to camera, blue shirt, listening to heritage concerns shared by Nibutani Ainu community members as part of a Nibutani-IPinCH initiative planning meeting, Biratori, Japan, 2013. Photo courtesy of Hideki Yoshihara and Nibutani Ainu Culture Conservation Office.

References
Abdykanova, Aida, Kubitbek Tabaldiev, Asipa Zhumbaeva, and K. Anne Pyburn

Carcross/Tagish First Nation, Champagne and Aishihik First Nations, Ta’an Kwach’an Council, Tr’ondëk Hw’il First Nation, Sheila Greer, and Catherine Bell

Newson, Bonnie, the Penobscot Nation Intellectual Property Working Group, Julie Woods, and H. Martin Wobst

— George Nicholas, Professor of Archaeology, Simon Fraser University, Burnaby, British Columbia
Listening to Experts: The Directions Indigenous Experience Has Taken Us in the Study of Earth Mounds in Northern Australia

Earth mounds in northern Australia are one of the few archaeological site types that can survive in the regions they are specific to—wetlands, margins of swamps, alluvial plains. Interpretation of earth mounds should be a prime objective for archaeologists in northern Australia. However, they have proven difficult to interpret from a traditional Western archaeological standpoint, and from within a traditional Western reality, for two reasons:

1. Earth mounds yield few artifacts, have little stratigraphy, and can be difficult to distinguish from natural features in the landscape (Figure 1).
2. Any information about earth mounds that has been obtained archaeologically is very difficult to interpret from within a Western reality.

An archaeology of listening changes these difficulties. If you want to learn about people and communities who were once deeply connected to a landscape, it can help to listen to the people and communities who are still deeply connected to that landscape. The phrase “listening to experts” refers to these people and communities (here, local Indigenous communities) who live in and are connected to these places. Australian Traditional Owners today are custodians of a living body of knowledge, firmly supported by an ethnographic corpus, that has been carried down through periods of immense conflict and change. Listening to them introduces us to informed reasoning backed by expert opinions from those who experience these landscapes and their traditions every day.

By consulting with local Traditional Owners, I began to obtain the necessary education about what could be investigated, as well as confirmed or discounted, as evidence. Listening does not provide a blueprint of the past; rather, it highlights the questions that need to be asked about the past.

Listening expanded my archaeological investigation of earth mound sites. By working with Traditional Owners, including Patsy ‘Raichiwanga’ Raglar (Figure 2), who maintain some of the earth mounds, I was educated on what to look for via specific techniques (archaeomagnetic analysis, X-ray diffraction, etc.) that allowed me to differentiate these sites from natural features and understand what was different about them. They were, I learned, “kitchen-sinks” of the past, i.e., broadly based nonspecific, multipurpose activity areas, centered around a primary activity (in this case earth oven cooking). Kitchen-sinks can be a fundamental component of utilitarian sites like garden sheds as well as ritually significant, sacred sites like cathedrals. In the same vein, earth mounds could serve as primarily utilitarian activity sites, like small, briefly used, wet season food-processing places, or, as large complex multigenerational ritual sites, such as liminal sites associated with human cremation, philosophies of death, and rites of passage tied to social memory.

Development of these sites was incremental. Initially, layers of protective organic material, like paperbark and/or aromatic vegetation, would be laid over heat retainers and glowing embers in an earth oven, along with the food to be baked, followed by more layers of organic material. The oven would then be completely covered and sealed with soil and left to bake until the food was ready to eat (Ó Foghlú 2017; Ó Foghlú forthcoming). Using a site repeatedly instigates the mass build-up of dark charcoal-rich soil, which both surrounds and becomes the site. This build-up makes the soil softer to dig and more heat-retentive after every use. Multiple earth ovens can be employed on the mound as it develops, and surface fires become easier to ignite and manage in this charcoal-rich environment. The active site becomes a raised clearing in a landscape often dominated by concealing bushland, with a surface ideal for erecting complex shelters. The development and utilization of earth mounds can be dated to around 2,200 years ago in some parts of northern Australia, continuing through colonial times and up to the present day, through periods of immense conflict and change (Ó Foghlú 2017; Ó Foghlú forthcoming).
Although earth mounds do not fit within the Western concept of a complex construction, they are not the result of careless, unplanned discard. The past and present landscapes of which they are a component would not meet the criteria of an urban area, yet many of these places would have been complex, cosmopolitan hubs of interaction and exchange (see Ó Foghlú et al. 2016). Sometimes movement can occur as part of a greater collective, or in groups smaller than the norm. Traditional Owners’ “country,” as a concept, does not fit squarely within the Western conceptions of territories, borders, and boundaries; it comes from a different but equally valid place of understanding.

Listening cannot stop with utilitarian function and physical construction. Just because we have learned how to obtain information from a site does not mean we have learned how to understand it. Sites have biographies. Why some are held in memory as significant, and others less monumental, are matters of histories, some shared and woven together by communities, some only by individuals or families. Earth mound behavior can be difficult to understand from the lens of Western perspectives. Local realities, equally significant, allow these sites to be better interpreted; that is, listening and learning about them allows inference to the best feasible explanation.

All of this—understanding how to obtain information from earth mound sites, and how to interpret that information—would have been impossible without listening. Listening is imperative.

References

Ó Foghlú, Billy


Ó Foghlú, Billy, Daryl Wesley, Sally Brockwell, and Helen Cooke

— Billy Ó Foghlú, PhD Candidate, Archaeology and Natural History, Australian National University

Listening to Great Zimbabwe’s Local Histories and Its Toponyms

What do certain place and other geographical names mean, and of what significance are these to local and regional histories of the Zimbabwe plateau? How do we make sense of some of the dynastic titles apparently far removed from Great Zimbabwe, especially when read in conjunction with written texts? How do we translate these to the context of built form and environment and the production of architecture and settlement at Great Zimbabwe?

Studying Great Zimbabwe, I have been listening to the anthropological critique, foregrounding “the silence of unheard voices and untold stories,” “the unrepresented pasts of local communities,” and also “the silence of anger—the alienation—and desecration of Great Zimbabwe” (Fontein 2006). Listening also to local people and their own historians, I hear the toponyms making Great Zimbabwe’s immediate and broader cultural and natural landscape. Hydronyms (place-names for rivers and other bodies of water) and oronyms (place-names for mountains/hills) locate the still-marginalized local and regional histories that provide complex stories of human movements and interactions within the broader landscape in which Great Zimbabwe is situated. Not
only do these histories tell us about the dynamics within Great Zimbabwe’s immediate landscape, they also provide a broader context for the expansion of the Zimbabwean culture and influence to distant regions of the Zimbabwean plateau. Although the stone-built monumental structures of Great Zimbabwe excited Europeans’ interest, they form only a small focal point in the system of mountains and rivers that marked and nourished the state. These landscapes tell the story of Great Zimbabwe, which the stone structures and the poor stratigraphic context may no longer be able to provide.

Boroma hills near Great Zimbabwe comprise a sacred landscape, where chiefs of the Duma clans are buried (Fontein 2015). These hills are an important source of spring water, which irrigates fields on the eastern side of Great Zimbabwe. According to oral historical sources, Boroma is a ruler, a political dynasty, and a ruling house or family with claims to royalty (Beach 1980, 1994; Mudenge 1988). Within Boroma hills, ‘mysterious things happen,’ ‘strange sounds’ of ‘heavy rain’ or ‘raging torrents’ or of ‘cattle bellowing,’ all pointing towards the existence of water spirits (Fontein 2015). The first references to “Boroma” relate to the Torwa or Butua state during the sixteenth century. Boroma is the only Torwa ruler we know by name, and the one ruling at Great Zimbabwe during this time (Beach 1980:200). What is interesting is that this name is imprinted not only around Great Zimbabwe, but also within the region or regions dominated by the culture once based at Great Zimbabwe. It is therefore not just a place-name, but a name telling the story of Great Zimbabwe and its successors.

The early-twentieth-century research of David Randall-MacIver (1906) is useful here, especially his “Medieval Period” dating of Great Zimbabwe (which should be contrasted with Richard Hall's Prehistoric Rhodesia [1909] denying its historicity). Randall-MacIver did not, however, place Great Zimbabwe in its broader landscape context of significant mountains, streams, and rivers. It was during a survey of Great Zimbabwe’s water resources, conducted by a team from the University of Pretoria and local research institutions, that we became fascinated by a landmark given the name Boroma by the local communities (Pikirayi et al. 2016). Inquiring of local residents and listening to their tales and explanations, we learned that Boroma the hill and its waters are central to their reality, linking directly to the political history of Great Zimbabwe.

References


—Innocent Pikirayi, Professor of Archaeology, University of Pretoria, South Africa
The Vulnerable Archaeologist

The vulnerable archaeologist? Like Behar’s “vulnerable anthropologist” (1996), that would be one who takes initiative to live with, genuinely listen to, and know communities. Such action makes possible alternative histories realized through community expressions and ontologies. Residues of imperial and postcolonial power have damaged northeastern Tanzania and its people. The communities, practices, and landscapes of the region bear the scars of nineteenth-century legacies of slaving, resource extraction, plantation production, and social turmoil. The distribution and intensity of debris reveals specific connective routes: the infrastructure of circulation that linked inland sites out into the Indian Ocean. The practice of slow archaeology reveals scars and how they persist, as well as their underlying stories.

Patience can be an artifact of seemingly perpetual suffering. To “be patient” is to be conscious of long-term struggle, and to require present treatment. In these contexts, time is bundled as ancient and contemporary. During annual pilgrimages to the marine coastline, healers (Figure 1) retrace nineteenth-century caravan routes in northeastern Tanzania. They assemble objects derived from known caravan nodes, old marketplaces, and other locales (often gathered while retracing routes), and “articulate” route itineraries during healing rituals that employ the items. Performance and material, in fact, are mutually constitutive in healing. Ancestors and nature spirits—manifestations of temporal “bundles”—reside at unique places that emit distinct sounds. Healers experience these soundscapes during annual pilgrimages when they gather ingredients for medicines. The possibility of healing through medicines and performances results, in part, from when healers’ words empower and activate their medicines. Primary community healing treats disenchantment developed through compounded traumatic histories. Only by listening and by experiencing healing did I learn how healers treat their community members’ suffering and their estrangement from themselves.

Living and working with healers helped to guide the regional-scale archaeological project I initiated in lowland Tanzania. I employed a strategy that emphasized known caravan routes as well as contemporary uses of the landscape, such as the annual pilgrimages of healers, outlined above, which retrace and negotiate pathways. What was learned is remarkable: The vicinities of present paths along which healers pass, as well as precolonial caravan nodes and routes, also bear more ancient residues of settlement and connectivity with Indian Ocean networks that stretch to the late first millennium AD. For those unaware, the associated finds at places such as Mombo in Korogwe District directly challenge extant narratives about East Africa that characterize ancient hinterland communities as separate from the coast prior to AD 1800. In this hinterland, residues found in language, mythology, oral tradition, and, now, archaeology, indicate long-term and substantial ties among people in the hinterland, at the coast, and plying the ocean.

Vulnerable archaeologists are attentive to people and their circumstances, not divorced from them. Such archaeologists recognize the hermeneutic circle among past, present, and future, expressed in ontologies and people’s everyday lives, including those at the peripheries of power. Archaeologists must be aware of how present communities reveal certain divisions (e.g., “history” versus “prehistory”) that plague our discipline, and instead make alternative deep-time histories, all through a method that has up until now eluded many of us: listening.

Reference

Behar, Ruth

1996 *The Vulnerable Anthropologist: Anthropology that Breaks the Heart*. Beacon, Boston.

—Jonathan Walz, Research Associate, The Field Museum, Chicago, IL
Archaeologies of Listening: Listening and Waiting, Excavating Later

When I began my research among the Haya of northwestern Tanzania 48 years ago, I listened to scores of oral testimonies, with my ear attuned to oral traditions linked to sacred sites and other physical places of cultural importance. I was trained in an anthropological archaeology that regarded the act of listening to local narratives to be as important as conducting excavations. Using this as a primary investigatory approach, I waited for 10 months until my Haya mentors suggested a particular agenda to begin conducting archaeological excavations at King Rugomora’s (c. 1650–1675) palace and Kaiija shrine tree, a shrine associated with iron production. From their knowledge and clear vision about the archaeological possibilities of their oral traditions arose an indigenous hypothesis affirmed by empirical evidence that we obtained from excavation: the ancient (2,000-plus years old) iron production discussed in oral traditions occurred precisely where their deep-time memories indicated. This major discovery about the antiquity of oral traditions was later explained by the continuous performance of important rituals at the Kaiija shrine site; in the following section, I will further discuss these findings from a recent village initiative that explored oral-tradition research. These revelations were also accompanied by groundbreaking evidence for innovations in iron smelting and the rich metaphorical structure of the ancient shrine where excavations confirmed local knowledge (Schmidt 1978). As I now reflect on this experience, I see many affinities to what we now consider participatory community research (e.g., Atalay 2012; Colwell-Chanthaphonh and Ferguson 2008). I was guided and led to one of Africa’s most important shrines by local elders who also formulated the research question by suggesting that archaeology be conducted in the precinct where iron production was said to have occurred. What I did fit well with local cultural sensibilities and was in keeping with my apprenticeship to the most knowledgeable keepers of oral accounts, allowing me to reach a deeper understanding of Haya history (Schmidt 1978).

Listening to Women

Those of us who reside in communities for extended periods of time and who enlist as partners with local knowledge-keepers have learned that community archaeology affords insights and understandings of the past otherwise inaccessible to most archaeologists. These principles once again became vital protocols four decades after my initial research, when I was invited to rejoin the Katuruka village community where King Rugomora’s palace and Kaiija shrine were located. Driven by their need to recuperate heritage severely eroded by the loss of accomplished knowledge-keepers through the ravages of HIV/AIDS, elders took the initiative to record and preserve their oral traditions, a form of heritage knowledge that they highly valued (Schmidt 2014). From the start of their efforts, female elders emerged as some of the most prominent keepers of oral knowledge (Figure 1), a major break from previous norms of androcentric control over heritage knowledge. New narratives, previously kept subaltern by androcentric perspectives—both local and foreign—brought forth significant information about a female ritual official at the burial estate of King Rugomora (the former palace). Though I had periodically stayed in and conducted research in the village over a 15-year period, I had never heard a story about a female ritual official at King Rugomora’s burial estate. I had several times asked who had occupied the vacant palace house, but had been rebuffed by male storytellers. A quarter of a century later, listening closely to elderly women revealed to me that this heretofore unrecognized female ritual authority held significant political and religious power in the region (Schmidt 2014). She assumed the office in 1900 as a virgin bride to the dead king, who then would visit her as a snake during each New Moon ceremony to renew their vows and to mate—a ritual process linked to the renewal of his kingdom. Driven underground by dominant male discourses, these now emergent subaltern accounts significantly revise our interpretation of one of Africa’s most important ancient shrines, dating more than two millennia into the past.

Re-Listening to Oral Traditions about a Colonial Massacre

The erosion of intangible heritage in western Tanzania is best illustrated by an event that arose during my association with the Katuruka village research initiative. Shortly after the project started, we were called by a local primary school to examine human skulls and long bones found by students engaged in a biology assignment. We found many human remains lodged in a nearby rockshelter called Mazinga Cave. Some skulls bore evidence of death by heavy-caliber bullets. No explanation was forthcoming from elders in neighboring villages. While German military rule resulted in several deaths, no archival reference could be found, nor was there mention of any nearby colonial incident in the historiography of the region. Then I remembered that in 1969, I had recorded several oral accounts with highly specific details about a major massacre of local people by the German military government, circa 1901 (Schmidt 2017). These accounts were part of my initial inquiry into local heritage in 1969,
when I roamed the region talking with elders for 10 months. My memory jogged, I retrieved the accounts from my records, shocked at their specificity and credibility. Heritage knowledge about this genocidal event had been severely eroded, a victim of the HIV/AIDS pandemic that broke chains of transmission. Now there is a small exhibit at the local primary school that places the remains into historical context and restores pride in the way that heritage was once maintained so meticulously in the region. Had it not been for my listening closely to elders in 1969, there would have been no way to explain how these remains ended up in what people once considered an appropriate setting for those killed in battle (a taboo requires such bodies be placed in holes in the bush or in caves).

These three vignettes are linked to my initial period of listening for nearly a year before initiating archaeological fieldwork. Through my participation in the Katuruka initiative, I have had the good fortune to juxtapose the 1969 accounts against more detailed ritual knowledge about the Kajja shrine and King Rugomora’s burial estate, opening new vistas of understanding about a significant African archaeological site. The discovery of human remains at Mazinga Cave would have forever remained a mystery had it not been for listening to elders in 1969. Most important is that listening then and now provides me precious means to reciprocate Haya generosity in sharing so much of their reality over the course of nearly a half-century.

References
Atalay, Sonya 2012 Community-Based Archaeology: Research with, by, and for Indigenous and Local Communities. University of California Press, Berkeley.

—Peter R. Schmidt, Professor of Anthropology, University of Florida–Gainesville

Figure 1: Haya women listening to an elder. Photo by Peter R. Schmidt.
CALL FOR AWARD NOMINATIONS

The Society for American Archaeology calls for nominations for its awards to be presented at the 2018 Annual Meeting in Washington, DC. These awards are presented for important contributions in many different areas of archaeology. If you wish to nominate someone for one of the awards, please review the award’s descriptions, requirements, and deadlines. This information is posted on the award’s PDF Fact Sheet on the SAA website (follow links to About the Society/Awards page, or go directly to the page at http://saa.org/AbouttheSociety/Awards/tabid/123/Default.aspx). Each awardee is recognized by the SAA through a plaque presented during the business meeting held at the Annual Meeting, a citation in The SAA Archaeological Record, and acknowledgment on the awards page of the SAA website. Recipients of certain awards also receive monetary or other compensation. Please check the award’s online Fact Sheet for details, and contact the chair of each committee with questions.

Here is a list of the award deadlines, followed by a brief summary of each award.
1) Award for Excellence in Archaeological Analysis / January 10, 2018
2) Book Award / November 15, 2017
3) Crabtree Award / January 2, 2018
4) Award for Excellence in Cultural Resource Management / December 31, 2017
5) Award for Excellence in Curation, Collections Management, and Collections-based Research and Education / December 31, 2017
6) Dissertation Award / October 21, 2017
7) Fryxell Award for Interdisciplinary Research for 2018 / March 1, 2018
8) Gene S. Stuart Award / December 31, 2017
9) Institute for Field Research Undergraduate Student Awards / March 1, 2018
10) Award for Excellence in Latin American and Caribbean Archaeology / January 2, 2018
11) Lifetime Achievement Award / January 6, 2018
12) Award for Excellence in Public Education / November 1, 2017
13) Student Paper Award / March 1, 2018
14) Student Poster Award / March 1, 2018
15) Geoarchaeology Awards (includes Goldberg Award and Kellogg Fellowship) / November 1, 2017
16) Dienje Kenyon Memorial Fellowship / December 15, 2017
17) Fred Plog Memorial Fellowship / November 1, 2017

1) Award for Excellence in Archaeological Analysis
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 2018 Award for Excellence in Archaeological Analysis will be presented in the CERAMIC ANALYSIS category.
Nomination deadline: January 10, 2018
Committee chair: Andrew I. Duff, e-mail: duff@wsu.edu

2) Book Award
This award honors two recently published books (from 2015 onward), one in the scholarly category for a book that has major impact on archaeological research, and the other in the popular category for a book written for the general public.
Nomination deadline: November 15, 2017
Committee chair: Nan Gonlin, e-mail: nan.gonlin@bellevuecollege.edu

3) Crabtree Award
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.
Nomination deadline: January 2, 2018
Committee chair: Michael J. Shott, e-mail: shott@uakron.edu

4) Award for Excellence in Cultural Resource Management
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 2018 Award for Excellence in Cultural Resource Management will be presented in the PRESERVATION category. Candidates may
**CALL FOR AWARD NOMINATIONS**

include individuals employed by federal, state, tribal, or local government agencies, museums, educational institutions, and similar institutions who have developed and or implemented public policy, regulations, and ordinances that further cultural resource site protection and historic preservation on a local or regional basis.

Nomination deadline: December 31, 2017  
Committee chair: Kimball M. Banks, e-mail: kimballbanks@gmail.com

### 5) Award for Excellence in Curation, Collections Management, and Collections-based Research and Education

This award recognizes outstanding efforts and advancements in the curation, management, and use of archaeological collections for research, publication, and/or public education. This award subsumes four themes presented on a cyclical basis. The 2018 Award for Excellence in Curation, Collections Management, and Collections-based Research and Education will be presented in the COLLECTIONS-BASED EDUCATION category.

Nomination deadline: December 31, 2017  
Committee chair: Richard Busch, e-mail: rbusch@dmns.org

### 6) Dissertation Award

This award recognizes a recent graduate whose dissertation is original, well-written, and outstanding.

Nomination deadline: October 21, 2017  
Committee chair: Marilyn Masson, e-mail: mmasson@albany.edu

### 7) Fryxell Award for Interdisciplinary Research for 2019

This award recognizes the interdisciplinary excellence of a scientist whose research has contributed significantly to American archaeology. The 2019 award will be presented in the physical sciences category.

The Fryxell Committee works a year in advance and the next year’s winner is notified immediately after the Annual Meeting (i.e., the 2019 recipient will be notified in April of 2018). When the Awards Call for Nominations opens for the 2018 meeting, the Fryxell Committee will be accepting nominations for 2019.

Nomination deadline: March 1, 2018  
Committee chair: Christopher M. Stevenson, e-mail: cmstevenson23805@gmail.com

### 8) Gene S. Stuart Award

An award of $1,000 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.

Nomination deadline: December 31, 2017  
Committee chair: Zachary Nelson, e-mail: zachary73@gmail.com

### 9) Institute for Field Research Undergraduate Student Awards

These awards recognize an outstanding student paper and poster, each with a $1,000 prize provided by the Institute for Field Research.

Nomination deadline: March 1, 2018  
Committee chair: Scott Van Keuren, e-mail: scott.vankeuren@uvm.edu

### 10) Award for Excellence in Latin American and Caribbean Archaeology

This award recognizes an individual who has made a lasting and significant contribution to archaeology in Latin America or the Caribbean.

Nomination deadline: January 2, 2018  
Committee chair: Calogero M. Santoro, e-mail: calogero_santoro@yahoo.com

### 11) Lifetime Achievement Award

This award recognizes the truly extraordinary, lasting, and positive accomplishments of an archaeologist.

Nomination deadline: January 6, 2018  
Committee chair: Jerry Sabloff, e-mail: jsabloff@santafe.edu

### 12) Award for Excellence in Public Education

This award recognizes excellence in the sharing of archaeological information with the general public and is designed to encourage outstanding achievements in public engagement. The 2018 award will be presented in the Curriculum category; the award will emphasize how nominees used print and/or online media to educate and increase public awareness. This category recognizes outstanding programs or products that reflect collaborative initiatives that engage diverse communities. Potential applicants and nominees who feel their work is eligible should contact the committee in early November to solicit guidance. The committee will consider outstanding nominations in other categories for future awards. The committee also recognizes that some programs or projects may be eligible for more than one category. Upon request, the committee will provide suggested examples of programs or projects eligible for the award category in a given year.

Nomination deadline: January 1, 2018  
Acting Committee chair: Jayur Mehta, e-mail: jayur@illinois.edu
CALL FOR AWARD NOMINATIONS

13) Student Paper Award

This award (valued at more than $1,000 worth of books and other prizes) recognizes the best student presentation of original research in a paper session at the SAA Annual Meeting.

Submission deadline: March 1, 2018
Committee chair: Natalie Munro, e-mail: Natalie.Munro@uconn.edu

14) Student Poster Award

This award recognizes the best student presentation of original research in a poster session at the SAA Annual Meeting.

Submission deadline: March 1, 2018
Committee chair: Gabriel Wrobel, e-mail: wrobelg@msu.edu

15) Geoarchaeology Awards (includes Goldberg Award and Kellogg Fellowship)

These awards ($500) provide support for thesis research for a graduate student at the MA/MS level in the earth sciences and archaeology; in addition, these awards provide support ($500) for dissertation research for a graduate student at the PhD level in the earth sciences and archaeology.

Submission deadline: November 1, 2017
Committee chair: Cynthia M. Fadem, e-mail: cfadem@gmail.com

16) Dienje Kenyon Memorial Fellowship

In honor of the late Dienje M. E. Kenyon, a fellowship is offered to support a female archaeologist in the early stages of graduate zooarchaeology training. Kenyon’s specialty. An award of $1,000 will be made. To qualify for the award, applicants must be enrolled in an MA or PhD program focusing on archaeology. Strong preference will be given to applicants in the early stage of research project development and/or data collection, under the mentorship of a zooarchaeologist.

Submission deadline: December 15, 2017
Committee chair: Christyann M. Darwent, e-mail: cmdarwent@ucdavis.edu

17) Fred Plog Memorial Fellowship

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. In the case of a tie, the award is split equally between the fellows.

Submission deadline: November 1, 2017
Committee chair: Deborah Huntley, e-mail: dhuntley@archaeologysouthwest.org

School for Advanced Research
INNOVATIVE SOCIAL SCIENCE & NATIVE AMERICAN ART

Linda S. Cordell Prize

Nominations Sought for the
Linda S. Cordell Prize

This award recognizes innovative books in archaeology or anthropological archaeology that best exemplify excellence in writing, significantly advance archaeological method, theory, or interpretation, and inform other subfields of anthropology or related disciplines.

Deadline for the 2019 prize is January 15, 2018

Visit sarweb.org for more information on this program, including eligibility criteria and nomination guidelines.

Coming Soon from The SAA Press
Out of the Cold: Archaeology on the Arctic Rim of North America
by Owen K. Mason and T. Max Friesen

The Arctic rim of North America presents one of the most daunting environments for humans. Cold and austere, it is lacking in plants but rich in marine mammals—primarily the ringed seal, walrus, and bowhead whale. In this book, the authors track the history of cultural innovations in the Arctic and Subarctic for the past 12,000 years, including the development of sophisticated architecture, watercraft, fur clothing, hunting technology, and worldviews. Climate change is linked to many of the successes and failures of its inhabitants; warming or cooling periods led to periods of resource abundance or collapse, and in several instances to long-distance migrations. At its western and eastern margins, the Arctic also witnessed the impact of the world systems of Asia and Europe, as the effects of the Norse and later Europeans engaged the east; while in the west, commodities from East Asia and finally the Russians impacted the Bering Strait.
Journal of Archaeological Science
Editors: Th. Rehren, R. Torrence
The Journal of Archaeological Science is aimed at archaeologists and scientists with particular interests in advancing the development and application of scientific techniques and methodologies to all areas of archaeology. The journal provides an international forum for archaeologists and scientists from widely different scientific backgrounds who share a common interest in developing and applying scientific methods to inform major debates through improving the quality and reliability of scientific information derived from archaeological research.
Find out more by visiting: elsevier.com/locate/jas

Archaeological Research in Asia
Editor-in-Chief: R.L. Bettinger
Archaeological Research in Asia presents high quality scholarly research conducted in between the Bosporus and the Pacific on a broad range of archaeological subjects. It publishes work on the full temporal range of archaeological inquiry with a special emphasis on time periods underrepresented in other venues.
Find out more by visiting: elsevier.com/locate/ara

For more information about journals in our portfolio visit: elsevier.com/archaeology
@ElsevierArchaeo
Where the Land Meets the Sea
Fourteen Millennia of Human History at Huaca Prieta, Peru
EDITED BY TOM D. DILLEHAY

This landmark, interdisciplinary volume on the excavation of one of the longest-occupied yet most enigmatic sites in human history sheds new light on how civilization began among farmers and fishermen some fourteen thousand years ago.

“It will be an essential source for all Andean scholars and a companion to classic works such as Junius Bird’s Huaca Prieta volumes.” —Paul Goldstein, University of California, San Diego

Release Date | August 2017
832 pages | 8.5 x 11 inches | 9 color and 98 b&w photos, 33 b&w illus., 16 b&w maps, 26 b&w charts/graphs
$75.00 hardcover, e-book

Inka History in Knots
Reading Khipus as Primary Sources
BY GARY URTON

The world’s leading authority on Inka khipus presents a comprehensive overview of the types of information recorded in these knotted strings, demonstrating how they can serve as primary documents for a history of the Inka empire.

“My overall impression is one of astonishment and admiration at the insights that Urton has been able to gain through his copious knowledge and meticulous approach. No one else in the world is as well-informed or -positioned to write on this subject.” —Terence N. D’Altroy, Columbia University

Release Date | April 2017
319 pages | 6 x 9 inches | 13 color and 48 b&w photos, 12 b&w illus., 10 b&w maps, 1 color chart/graph, 14 b&w charts/graphs, 3 b&w tables
$27.95 paperback, e-book

www.utexaspress.com | 800.252.3206
The Alliance for Weedon Island Archaeological Research and Education, Inc. (AWIARE) is accepting applications for research at Weedon Island Preserve in Pinellas County, Florida. The 3,200-acre preserve is home to the Weedon Island archaeological site (8PI1), listed on the National Register of Historic Places, as well as other sites related to the Manasota, Weedon Island, and Safety Harbor cultures. Use of the AWIARE Research Station is open to qualified researchers and graduate students who wish to conduct archaeological research related to Weedon Island and related topics. Multidisciplinary projects that address questions of human-environment interactions (e.g., sea-level change, climate change, human ecology) are encouraged. Applicants must complete an application form that describes their research, explains how it conforms to the mission and objectives of AWIARE, and indicates the source of funding for the project. AWIARE does not provide funding, scholarships, or fellowships at this time. Use of the Research Station for research and living accommodations is provided free of charge. Applicants must be legal residents of the United States and be associated with an educational organization or institution. Independent researchers or those pursuing advanced degrees also may apply. Research may include fieldwork, laboratory analysis, or archival research. For more information, contact Dr. John Arthur, AWIARE, 1500 Weedon Dr. NE, St. Petersburg, FL 33702 or by e-mail (awiare1@gmail.com).

Revised and Updated Policy and Style Guide for SAA Publications Now Available. In June 2017, the Society for American Archaeology (SAA) released a fully revised and updated publication policy and style guide in English and Spanish: “Editorial Policy, Information for Authors, and Style Guide for American Antiquity, Latin American Antiquity, and Advances in Archaeological Practice”/“Normas Editoriales, Información para los Autores y Guía Estilística para American Antiquity, Latin American Antiquity y Advances en Arqueológico Practice.” The new guide provides updated submission requirements and policies, as well as procedures as they relate to our new publishing partner, Cambridge University Press. In the new guide, you will also find more robust guidance for citing various electronic sources (websites, blogs, etc.), updated protocols for certain formatting issues (e.g., use of % in text, removal of periods in BP/BC/AD, use of leading zeros), the requirement to document data availability, and more. The submission and style requirements are effective immediately and apply to all of SAA’s publications, so please be sure to carefully review the new guide before you submit a manuscript. Download your copy of the revised and updated policy and style guide from the publications area of the SAA website (http://www.saa.org). It is also available through the Editorial Manager® submission system for each of the SAA journals and the Cambridge Core links for each of the journals. If you have questions about the policy and style guide, please don’t hesitate to contact the Manager of Publications at SAA (Marnie Colton, marnie_colton@saa.org), or the Chair of the SAA Publications Committee (Teresita Majewski, tmajewski@sricrm.com).

**NEWS & NOTES**

**SEPTEMBER 28**

Online Seminar: CRM in Latin America (12:00 p.m.–1:00 p.m. EST)
*This course will be presented in Spanish. For SAA Members Only.*

**OCTOBER 12**

Online Seminar: Archaeological Curation and Collections Management: What You Need to Know but Never Learned in School (2:00 p.m.–4:00 p.m. EST)

**OCTOBER 26**

Online Seminar: Archaeological Application of Terrestrial Laser Scanning (2:00 p.m.–4:00 p.m. EST)

**NOVEMBER 2**

Online Seminar: Teaching Curation: A Guide to Developing a New, Stand-Alone Course or Integrating Curation into an Existing One (2:00 p.m.–3:00 p.m. EST). *For SAA Members Only.*

**NOVEMBER 15**

Online Seminar: The 3D Printed Past (2:00 p.m.–3:00 p.m. EST). *For SAA Members Only.*

SAA Annual Meeting: Deadline for Nonmember Participants to Join SAA

*To learn more about SAA’s Online Seminar Series and lectures, visit www.saa.org and click on the SAA Online Seminar Series banner.*

**APRIL 11–15, 2018**

SAA 83rd Annual Meeting, Washington, DC
TEOTIHUACAN: CITY OF WATER, CITY OF FIRE

Edited by Matthew Robb

444 pages, 350 color images, Hardcover, 9.75 x 12 in., $75.00

Founded in the first century BCE near a set of natural springs in an otherwise dry northeastern corner of the Valley of Mexico, the ancient metropolis of Teotihuacan was on a symbolic level a city of elements. *Teotihuacan: City of Water, City of Fire* examines new discoveries from the three main pyramids at the site—the Sun Pyramid, the Moon Pyramid, and the Feathered Serpent Pyramid—which have fundamentally changed our understanding of the city’s history. With illustrations of over 200 artifacts and artworks from the UNESCO World Heritage Site, this historic exhibition and accompanying catalogue examine objects drawn from major collections in Mexico, some recently excavated—many on view in the U.S. for the first time.

Published in association with the Fine Arts Museums of San Francisco.

EXHIBITION DATES:
de Young, San Francisco, September 30, 2017–February 11, 2018
Los Angeles County Museum of Art (LACMA), March–June 2018
SOCIETY FOR AMERICAN ARCHAEOLOGY

Online Seminar Series
RESERVE YOUR SEAT IN A SEMINAR TODAY

UPCOMING COURSES INCLUDE
- Charging the Hill: A Survival Guide
- Archaeological Application of Terrestrial Laser Scanning
- The 3D Printed Past

LEARN MORE AT WWW.SAA.ORG

THE SAA PRESS ARCHIVE

The archive features electronic versions of select out-of-print titles and is an exclusive membership benefit!

To access, sign in to the Members Section and click "The SAA Press Archives" link
We Want You! Volunteers Needed for the Annual Meeting!

SAA is seeking enthusiastic volunteers for the 83rd Annual Meeting in Washington, DC, who are not only interested in archaeology but who are also looking to save money and have fun.

To continue to give volunteers flexibility, SAA will again require only 8 hours of volunteer time! The complimentary meeting registration is the exclusive benefit for your time.

Training for the April 11-15 meeting will be provided via detailed manuals along with on-the-job training. Training manuals and the volunteer schedule will be sent out via e-mail on Monday, March 12, 2018. 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 Solai Sanchez at SAA: 1111 14th Street NW, Suite 800, Washington, DC 20005, Phone +1(202) 559-7382, Fax +1(202) 789-0284, or e-mail solai_sanchez@saa.org

Applications will be accepted on a first-come, first-served basis until February 1, 2018.