

BACKDIRT

ANNUAL REVIEW OF THE COTSEN INSTITUTE OF ARCHAEOLOGY AT UCLA
DECEMBER 2017

A photograph of three people, two women and one man, looking at a large, reddish-brown ancient pottery jar. The woman on the left has long brown hair and is wearing a blue and white striped shirt. The woman on the right has short, bright blue hair and is wearing a green shirt. The man in the center has long brown hair and is wearing a red shirt. They are all looking down at the jar, which is sitting on a white cloth. The background is a stone wall.

Archaeology: More than
the Sum of Its Parts



BACKDIRT

ANNUAL REVIEW OF THE COTSEN INSTITUTE OF ARCHAEOLOGY AT UCLA

Willeke Wendrich
Director of the Institute

Randi Danforth
Publications Director, CIOA Press

Hans Barnard
Editor, *Backdirt*

Robyn Price
Assistant Editor, *Backdirt*

Copyediting
Peg Goldstein

Design
Doug Brotherton

FRONT COVER: Faculty, staff, and students of the Cotsen Institute, Museo Egizio, the Institute for Field Research, and Politecnico di Torino study selected ancient Egyptian artifacts in Museo Egizio.

BACK COVER: The vision of Lloyd Cotsen resulted in the Cotsen Institute of Archaeology, among many other achievements.

ABOVE: The foundation of the Cotsen Institute is the close collaboration of researchers from different departments.

To request a copy or for information on submissions, please
contact the Cotsen Institute of Archaeology Press via email at: ioapubs@ucla.edu
Read *Backdirt* online at: <http://ioa.ss.ucla.edu/content/backdirt> @2017 UC Regents

CONTENTS

BACKDIRT 2017

MESSAGE FROM THE DIRECTOR OF THE INSTITUTE

- 5 Willeke Wendrich

LLOYD E. COTSEN: A FOND REMEMBRANCE

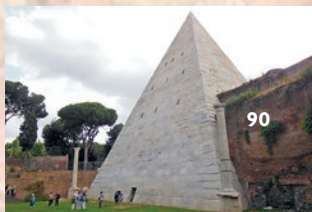
- 7 Ernestine S. Elster

THE INSTITUTE IN THE NEWS

- 16 Ellen Pearlstein President of ANAGPIC and Recipient of Mellon Grant
Hans Barnard
- 17 Giorgio Buccellati Named Doctor Honoris Causa of the
Ambrosian Library and Academy
Hans Barnard
- 17 Ioanna Kakoulli Shares Her Expertise beyond UCLA
Hans Barnard
- 18 Alan Farahani Receives a Chancellor's Award for Postdoctoral Research
Hans Barnard
- 18 Robyn Price Grad Slam Semifinalist
Hans Barnard
- 19 Cotsen Institute of Archaeology Press Author
Wins American Schools of Oriental Research Prize
Randi Danforth

FEATURES

- 20 Academia Is Not a Zero-Sum Game
Hans Barnard
- 23 Preserving Our Ancient Art Galleries: Volunteerism, Collaboration,
and the Rock Art Archive
Wendy All
- 30 A Day in the Life of a Rural Indian Cowherd
Steven Ammerman and Kunil Behera
- 34 Community Archaeology 1984: At the Interface between Practice and Theory
Giorgio Buccellati and Marilyn Kelly-Buccellati
- 39 Turning Points: A New Project in a New Era of Archaeology in the Near East
Aaron A. Burke
- 46 Sustainable Preservation Initiative: Local and Global Collaboration
Paul Burtenshaw and Larry Coben
- 50 The Dragon-Stones of Armenia
S. Peter Cowe



- 56 Growing Together in the Ancient Agriculture and
Paleoethnobotany Laboratory
Alan Farahani
- 58 Summer in Turin, Italy
*Jordan Galczynski, Caroline Arbuckle MacLeod, Danielle Candelora,
Vera Rondano, Robyn Price, and Jeffrey Newman*
- 60 Masis Blur Mobility Project
Anneke Janzen and Kristine Martirosyan-Olshansky
- 62 Engaging, Collaborating, and Investing for the Future:
The Ifugao Indigenous Peoples Education Center and Community
Heritage Galleries
Marlon Martin and Stephen Acabado
- 66 Guidelines for Facilitating Work between American Indian
Communities and Museums
Ellen Pearlstein
- 68 Museology and Egyptian Material Culture
Vera Rondano
- 70 A Resource Survey in the Qinling Mountains of China
Tao Shi
- 76 Collaborating by the Riverbank: Intersections of Memory and Tangible,
Intangible, and Virtual Heritage on Pimu (Santa Catalina Island)
Wendy Teeter, Lynn Dodd, and Sedonna Goeman-Shulsky
- 84 Revisiting the Huoshaogou Cemetery
Chenghao Wen
- 88 Our Trip to Italy with the Director's Council, June 2017
Adina Savin and Benson Harer

SELECTED CLASSES

- 93 Cutting Edge in Archaeology: A UCLA Extension/
Cotsen Institute of Archaeology Course
Alan Farahani
- 94 ARCHEOL C220: Special Topics in Archaeology:
Stable Isotope Analysis in Archaeology
Anneke Janzen
- 95 Archaeology, Ethnography, and Ethnoarchaeology as Tools
for Studying Contemporary Social Issues
Sonali Gupta-Agarwal
- 96 Honors Collegium HNRS147: The Anthropocene:
An Archaeological Perspective
Hans Barnard

REPORTS FROM THE CHAIRS

- 98 Report from the Chair of the Archaeology
Interdepartmental Degree Program
John K. Papadopoulos
- 100 Message from the Chair in the UCLA/Getty
Interdepartmental Program in Conservation of Archaeological
and Ethnographic Materials
William G. Roy
- 104 Graduate Student Achievements *Robyn Price*
- 106 Incoming Graduate Students *Willeke Wendrich*

CONTENTS

CONTINUED

COTSEN COMMUNITY EVENTS

- 109 Pizza Talks 2016–2017
Vera Rondano, Maddie Yakal, Gazmend Elezi, Queeny Lapeña, Alison Crandall, and A. J. Meyer
- 112 Friday Seminars 2016–2017
Karime Castillo, Anna Bishop, Danielle Candelora, Reuven Sinensky, Georgi Kyorlenski, and Adam DiBattista
- 114 Public Events at the Cotsen Institute of Archaeology
Sonali Gupta-Agarwal
- 115 Open House 2017: Connections
Sonali Gupta-Agarwal
- 116 Friends of Archaeology Events
Jill Siltan
- 117 The Online Ethnoarchaeology Research Group
Sonali Gupta-Agarwal

IN THE SPOTLIGHT

- 118 An Interview with Traveler and Donor Dorothy Jewell
Robyn Price
- 121 An Interview with Associate Professor Stella Nair
Robyn Price
- 126 An Interview with Former Director Merrick Posnansky
Robyn Price
- 131 Ivor Noël Hume OBE (1927–2017)
Merrick Posnansky

FROM THE PUBLISHER'S DESK

- 133 Notes from the Editor in Chief
Aaron A. Burke
- 134 From the Publisher's Desk
Randi Danforth

ACKNOWLEDGEMENTS

- 138 List of Donors
Lisa Mohan

Message from the Director of the Institute

IN THIS MESSAGE I want to take the opportunity to look both back and forward. In the past year we paid tribute to Chip Stanish, David Scott, and Jeanne Arnold, who retired, and to Lloyd Cotsen, whom we will have to miss forever. The legacy of these individuals is an intellectually strong, financially sound research institute that has much to offer its students, faculty, and staff.

Our eponymous benefactor is honored elsewhere in this issue. David Scott celebrated his retirement by giving the prestigious Patricia McCarron McGinn Lecture, with a presentation entitled “Surrogates and Copies: From Veronese to Duchamp.” To support faculty and staff of the UCLA/Getty Interdepartmental Program in the Conservation of Archaeological and Ethnographic Materials (CAEM), William G. Roy agreed to serve as acting chair until the program is back to full strength. William (Bill) obtained a PhD in sociology from the University of Michigan in 1977 and is now emeritus professor after spending his professional life at UCLA’s Department of Sociology. Previously he studied large corporations and the human experience of time. His current research focuses on how musical genres work as social categories.

Thanks to the generosity of Charlie Steinmetz, a longtime supporter of the institute, and the vision of Executive Vice Chancellor and Provost Scott Waugh, Alan Farahani will be able to continue developing our Early Agriculture and Paleoethnobotany Laboratory. In January 2017 Alan received a Chancellor’s Award for Postdoctoral Research for his work at UCLA. In addition to the Early Agriculture and Paleoethnobotany Laboratory, we have also seen the establishment



Cotsen Institute Director Willeke Wendrich

of the Digital Laboratory. With the ceramic, Andean, and ethnoarchaeology working groups, such thematic laboratories form nuclei of research activity, involving faculty and both graduate and undergraduate students.

Anneke Janzen, our Cotsen Postdoctoral Fellow, accepted a two-year postdoctoral research position at the Max Planck Institute for the Science of Human History in Jena, Germany, where she plans to continue her study on human and animal mobility. Former director Jim Sackett moved the European Laboratory (A419) into a smaller writing office (A322).

We had quite a few celebratory public events, including the award ceremony of the second triannual Cotsen Prize to Jane Buikstra; public lectures on Ethiopia, Museo Egizio (Turin), and Athenian naval bases; the annual Open House in collaboration with the Fowler Museum; and, most importantly, the graduation of six of our students at the end of the academic year.

Kimberly Squire, our fund manager, found a new position with the City of Los Angeles. We welcomed a new staff member in the person of Shaharoh Chism, who will be taking over several tasks of office manager Tanja Hrast and will replace Amber Cordts-Cole, who

Message from the Director of the Institute

CONTINUED

retired as administrative assistant of CAEM. Our full administrative staff now consists of Teresa Sanchez, chief administrative officer; Tanja Hrast, program coordinator; Shaharoh Chism, office coordinator and support for CAEM; Matthew Swanson, student affairs officer; Randi Danforth, director of publications; Deidre Whitmore, Digital Laboratory manager; Jill Siltan, president of the Friends of Archaeology; and Sonali Gupta-Agarwal, director of public programs. Our wonderful staff has been cross-training, so the transition to each new situation can be met with confidence.

In the coming year we will continue development of our digital data open access initiative in close collaboration with UCLA's Digital Library. The year also promises to bring continued development of our working spaces and a consideration of how best to employ the limited amount of square footage we have. New laboratories will preferably serve a communal purpose, with every member of the institute welcome to make use of them. We hope to set up an Architecture Laboratory and an Experimental Archaeology Laboratory.

Finally, we start the new academic year with a redecorated seminar room A222, home to our Pizza Talks and Friday Seminars. Every Wednesday from 11 to 11:30 we will have an informal pre-pizza parlor in A222, where anyone can bring up agenda points. These meetings aim to be a hub of information and to facilitate an open exchange of ideas. The agenda and notes will be available through UCLA's Box.

The foundation of the Cotsen Institute is the close collaboration of researchers from different departments and faculty. For our graduate students, the institute provides an environment in which to explore different disciplines and various archaeological traditions, not only by doing an out-of-area exam but literally by traveling out of their areas and participating in one of the many archaeological projects

around the world in which the institute is involved. The theme of this year's Open House and *Backdirt* is "communities," with an emphasis on cooperation and collaboration in the broadest sense of these terms. This is something we are all very much involved in, but is important to explicitly recognize, value, and strengthen it. The Cotsen Institute is a proud initiator of collaborative efforts, with local communities in the regions where we do research, with research communities within UCLA, and with communities across the world.



Willeke Wendrich
Joan Silsbee Chair of
African Cultural Archaeology

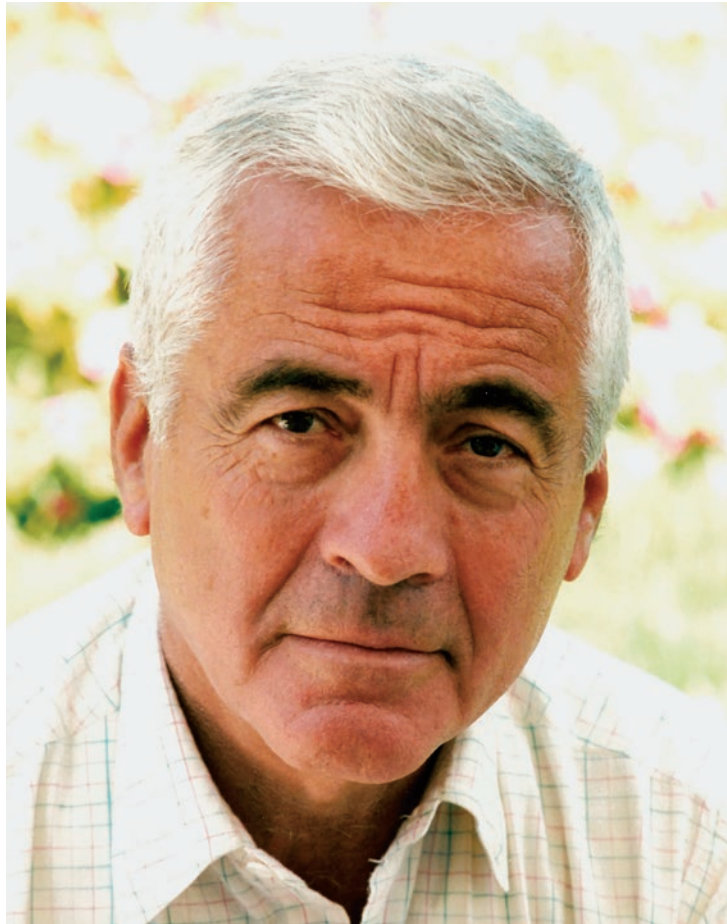


Figure 1.
Lloyd E. Cotsen
(1928–2017).

Lloyd E. Cotsen: A Fond Remembrance

Ernestine S. Elster

WRITING A MEMORIAL ABOUT an old friend is a mixed blessing. Fond memories fill your mind and heart, especially so with Lloyd. My late husband, Sandy, and I were close to him for many years. Lloyd's was a life filled with accomplishment, friendship, commitment, and curiosity, not only in archaeology but also in business, philanthropy, education, and publication. It is challenging to consider the many worlds he explored, all with a great eye and a collecting spirit. Indeed, my thanks at the onset go to Margit Sperling Cotsen, who married Lloyd in 1995; Corinna Cotsen, Lloyd's oldest child; Jolie Godoy, his personal assistant; Ivy Trent, his librarian since 1990; Lyssa Stapleton, his collections curator since 1997; and archaeologists Charles Stanish, Richard Leventhal, Jack Davis, and Giorgio Buccellati, without whom this

It was not simply an interest in archaeology

could not have been written. Their personal comments and e-mails, and generous sharing of photos, were truly indispensable.

Directly after Lloyd's death in May 2017, director Willeke Wendrich wrote on the website of the Cotsen Institute:

The Institute of Archaeology proudly carries his name and we often refer to ourselves as "the Cotsen family," a closely knit community of archaeological faculty, staff and students. We owe so much to his personal involvement and his generosity, which includes his financial largesse, but most of all his love for archaeology and his critical support of the Institute. The students who have never had a chance to meet him should know that this was a man who paired business acumen with wisdom and a great sense of humor. (<http://www.ioa.ucla.edu/content/tribute-lloyd-e-cotsen>)

This thoughtful tribute was followed by an archaeological biography I wrote (Elster 1998), from which I have borrowed freely.

ARCHAEOLOGY

Archaeology entered Lloyd's life after his graduation from Princeton University in 1950, after his discharge as a naval officer in the Korean War, and after he married JoAnne Stolaroff in 1953. While a student of the Graduate School of Architecture at Princeton, he responded to a telephone request for a volunteer at an excavation overseas, and in the summer of 1954, he and JoAnne traveled to Greece. His title was field architect at the archaeological project in Lerna on the Peloponnese Peninsula. Thus began his lifelong passion for archaeology and for Greece.

At the prehistoric site of Lerna, a small museum exhibits artifacts and renderings of architectural features at the site; the latter are signed "L. E. Cotsen, 1954." Examining these professional drawings during a visit to Lerna in 1965, Sandy and I had the first inkling of the depth of Lloyd's involvement in archaeology. He and JoAnne were our friends of long standing, and we took for granted that he was an important

part of the Neutrogena Corporation with an interest in archaeology. Our understanding was only partially correct. He was integral to Neutrogena and ultimately responsible for the enormous marketing success of its products. Concomitantly, since the date of the drawings, he had been in the archaeological trenches summer after summer alongside archaeological colleagues. It was only when the digging concluded at one of his favorite sites in Greece that he cut back on this annual active involvement. It was not simply an interest in archaeology but a fervent participation.

When first excavated, Lerna was one of a handful of sites on the Greek mainland with remarkably preserved architecture representing a long sequence, from the Neolithic through the Bronze Age. The excavation was under the direction of a highly respected archaeologist, Jack Caskey of the University of Cincinnati, who had worked with the legendary C. W. Blegen. In *Hesperia*, Caskey published an annual preliminary report:

Excavations at Lerna: 1956. The general program of digging . . . has now reached its concluding stage. . . . Mr. Cotsen, who spent the year in Greece . . . served as architect and surveyor and coordinated the many architectural plans, transferring hundreds of individual drawings to a series of large sheets that show all the remains by consecutive levels. . . . Mrs. Cotsen cleaned and cared for the objects found day by day . . . and painted the plaster restorations of all the pots inventoried during the first four seasons. (Caskey 1957:142)

During Lloyd's first field season, Caskey realized his potential and offered him the opportunity of graduate study as a fellow of the American School of Classical Studies in Athens (ASCSA). Over the next few years, Lloyd and JoAnne lived and breathed archaeology in Athens and business and marketing in Cambridge at the Graduate School of Business Administration at Harvard University. ASCSA and summers in the field were expansive experiences for Lloyd. They provided him with an understanding of how archaeology worked, its challenges in the field and the laboratory. All the while he grew to love Greece and developed a network of friends and colleagues, and an ongoing link with ASCSA, undiminished through time.

Lloyd graduated from Harvard in 1957, and at that juncture, his father-in-law, Manny Stolaroff, invited him to join his company, the forerunner of Neutrogena. Lloyd accepted, with time off every sum-



Figure 2. Lloyd at the drafting table in Greece.

mer for excavations in Greece. Along the way Lloyd and JoAnne became parents and began collecting children's books.¹ He grew into a captain of industry—president of Neutrogena in 1967, chief executive officer in 1973, and chairman in 1991—and a philanthropist of enormous vision and creativity. Over many field seasons in Greece, as the story goes, Lloyd would arrive on site, size up the situation, and imme-

diately set about pouring oil on any troubled waters, relying on his own inimitable brand of enthusiasm and humor. He was back in the field, his architect's tools unpacked, his beard growing by the day, and ready for the challenge of stratigraphy and time's inevitable destruction. The magic of the field transformed him from merchandising genius to working field archaeologist.

1. He was the proud father of Corinna, Tobey, Eric, and Noah (tragically deceased in 1979) and had eight grandchildren.



Figure 3. Lloyd Cotsen emerging from a manhole at Lerna. (Courtesy of the Department of Classics, University of Cincinnati, negative KA 481.31)

Jack Davis met Lloyd in 1974 at the excavations at Kea, one of the Cyclades in the Aegean Sea. Writing of their experiences, he included an especially cogent comment from Emily Vermeule that spoke to Lloyd's special talent:

He has always been a passionate archeologist, discerning with three-dimensional vision into the earth (Davis 2003:39). Old hands began talking about the imminent arrival of Lloyd Cotsen . . . tantamount to the advent of Santa Claus. Like St. Nick, he could be expected to arrive with presents for all. . . . On the archaeological side of the ledger, I had already heard tales of the other magic Lloyd could work: how as architect at Lerna he had painstakingly connected on paper individual cobbles mapped over several seasons, and found that they described a circle bordering a mound heaped over the ruins of the "House of Tiles." (Davis 2003:33)

Observing from within the strengths and pitfalls of archaeological projects, Lloyd developed a keen awareness for that characteristic problem of field archaeology: the publication of excavation reports. He generously provided means to solve the problem, for the projects at both Lerna and Kea. We at the Cotsen Institute have benefited from his interest in publications. The JoAnne Stolaroff Cotsen Prize Imprint, named to honor his late wife—who died tragically in 1979—is awarded on occasion to the author(s) of an outstanding forthcoming publication. The award provides support for printing and an honorarium to the author, who is invited to UCLA to present a public lecture or participate in a seminar. Lloyd expressly designed the award to extend beyond the book, so that we and the author could meet, exchange ideas, discuss questions, and expand our archaeological world. Lloyd's philanthropy always had an informed, extended quality. The first imprint, an impressive survey of Kea (Cherry et al. 1991), brought Jack Davis and John Cherry to UCLA. Subsequently, with a named gift, the Marija Gimbutas Memorial Lecture, Lloyd honored a scholar he greatly admired. This brought Colin Renfrew, Marija's good friend and col-

The magic of the field transformed him, From merchandising genius to working field archaeologist

league, to the Cotsen Institute to lecture many times. They had met years earlier at the Kea excavations and shared a passion for Greek archaeology.

Lloyd served on the advisory board of the Institute of Archaeology at UCLA after its inception under its first director, Giorgio Buccellati. He contributed generously to the first capital campaign, which then director Tim Earle undertook to provide for laboratory and office furnishings when the institute moved to the new Fowler Museum. Lloyd was awarded the Silver Trowel, the highest honor the institute can bestow, for his unwavering support. The Institute of Archaeology became the Cotsen Institute of Archaeology during Richard Leventhal's directorship. In an e-mail dated September 27, 2017, he wrote: "It was 1999/2000 when Lloyd promised the first big gift . . . then we renamed the Institute." Charles Stanish, who preceded the current director, Willeke Wendrich, was named director at Leventhal's departure. Stanish's e-mail, also dated September 27, 2017, suggests why Lloyd's great respect for books inspired him to establish his private Cotsen Occasional Press.

I first met [Lloyd] after I was named Acting Director in 2001. He and I put together a strategic plan for the Institute and he was very active in giving me advice on how to implement. . . . We both knew that the era of traditional publishing was coming to an end, but at that time electronic books in academia were still not very widely accepted. He also implicitly understood the enormous psychological draw that a "real" book held with intellectuals. We decided to forge ahead and make the best books we could while other presses adopted more economically efficient but far less attractive books. He absolutely loved books. For him, a published hard book was a permanent addition to the canon of knowledge.

Many archaeological spheres, in addition to his fieldwork at Lerna, Kea, and Pylos, received his skill, creativity, and vision. Marilyn and Giorgio Buccel-



Figure 4. Marija Gimbutas and Lloyd Cotsen at the event where he received the Silver Trowel.

lati's site in Syria received working visits from Lloyd, as did Marija Gimbutas's Scaloria Cave in Italy. In 1991 Lloyd and I planned, with Giorgio and Marilyn's collaboration, a joint excavation of a kurgan with the late Alexander Djavakishvili, director of the Archaeological Museum in Tbilisi, Georgia. In the spring of 1992, I learned that our funding from the National Research Center in Washington, D.C., was approved. In the end, however, it was not to be. Georgia was racked with political unrest, and we could not accept the grant. In 1995 Buccellati was planning a trip to investigate the landscape and people of the steppe during the winter, expecting to observe similarities to accounts of ancient agriculturalists. He invited his son Iko and Lloyd to join him. The trio departed in February, well before spring crops covered the land. They encountered many obstacles, including rain, snow, and of course mud. Lloyd's participation in this expedition was a perfect example of his ineffable, unquenchable interest in archaeology, for this was a kind of ethnoar-



Figure 5. Bob Ahmanson, Lloyd Cotsen, Ernestine Elster, and Richard Leventhal at the event where Lloyd received the Silver Trowel (in his jacket pocket).

chaeology he had never undertaken in Greece, never mind in winter weather. In an e-mail dated September 28, 2017, Giorgio described their journey:

Beginning in Mozan in the northeast, then Terqa downstream on the Euphrates and all the way to the Iraqi border (just where they are fighting today), and from there back across the steppe over Palmyra and all the way to the Mediterranean. . . . Lloyd was in charge of color photography (we had no video),² and Iko of black-and-white. . . . It lasted a month, and it was really wonderful.³

HONORS

Lloyd was recognized by election to the American Academy of Arts and Sciences in 2009. He earned honorary degrees from Pepperdine University in

1993 and the University of Cincinnati in 1994. Three publications were dedicated to him; by Buccellati and Kelly-Buccellati (1998), Papadopoulos and Leventhal (2003), and most recently Stanish (2017). The Archaeological Institute of America, for which he was active over the years as trustee and president of the Southern California Society, honored him a few years ago. Interested in post-antique Greek history, he served as chairman of the board of overseers of the Gennadius Library in Athens from 1995 until 2010, generously supporting development of its historic building. Before his death, he was awarded two prestigious Greek honors, the Order of the Phoenix and the Gennadius Library Prize. The latter was accepted on his behalf by his children Eric and Corinna in May 2017 during a ceremony in New York.

PHILANTHROPY, COLLECTIONS, AND PUBLICATIONS

Lloyd was a member of the ASCSA board of trustees from 1977 until 2010, part of that time as president. His additional work for ASCSA went on longer. He offered rare diplomacy in sorting out the vexatious problems of aging excavation reports and provided financial support for a number of archaeologists at various institutions, thus helping to bring languishing

2. Lloyd was a talented photographer. Margit Cotsen organized a surprise exhibit of his photographs at TAG Gallery in Los Angeles to celebrate his birthday in 2004.

3. See Buccellati and Kelly-Buccellati 1998 as an introduction to the region they explored.

works to scholarly hands. He provided the Archaeological Institute of America and ASCSA scholarships and fellowships, usually without fanfare, for talented students here and abroad. As a member of the board of trustees of the Ahmanson Foundation, he encouraged applications of an archaeological nature while at the same time challenging unrealistic goals. Over the years, Lloyd served in various capacities, always effectively, for many cultural institutions in Los Angeles.⁴ An important example is his support of the Skirball Museum, which includes an auditorium and Noah's Ark, an interactive exhibit for children built and designed in memory of his youngest son, Noah, who had died tragically in 1979. Consistently interested in education, he formed the Cotsen Foundation for Academic Research around the time of his retirement from Neutrogena. In 2001 he established the Art of Teaching, a program which demonstrates that tossing a stone in water will produce ever-expanding ripples. He believed that one magical teacher in elementary school could affect a child's learning forever. It all starts with one teacher—a magician—who acts as mentor to a younger teacher. The program grew from four school districts in Southern California to more than three dozen up and down the state. It is a prime example of the ripple effect and how Lloyd Cotsen's imagination affected his philanthropy. The Art of Teaching deserves an article all its own.⁵

Lloyd enjoyed a lifetime of collecting, beginning during the 1950s after his stint as a naval officer in the Korean War, when he purchased his first antique Chinese mirrors and his first basket. Informed by his curiosity and fine eye, and later interwoven with his philanthropy, he also collected textiles, children's books, and folk art. JoAnne and he both loved folk art. The pieces they collected were eventually donated to the Museum of International Folk Art in Santa Fe, New Mexico, and housed in a wing of the museum specifically built for the extraordinary collection. The collections developed incrementally and undoubtedly inspired Lloyd to publish his collections as he felt they should be presented, with scholarship, professional photography, and beautiful book designs.⁶ The books are always hardcover and often boxed. Several are in

4. He served on the Los Angeles Music Center managing committee and the boards of the Los Angeles Craft and Folk Art Museum, Huntington Museum and Gardens, and Getty Museum. For full list of his board positions, see the obituaries in the *Los Angeles Times* (May 12, 2017, page B6) and the *New York Times* (May 18, 2017, page B17).

5. See cotsen.org/the-art-of-teaching-program/.

6. See www.oakknoll.com/advSearchResults.php?action=search&orderBy=relevance&category_id=0&keywordsField=cotsen+occasional+press.

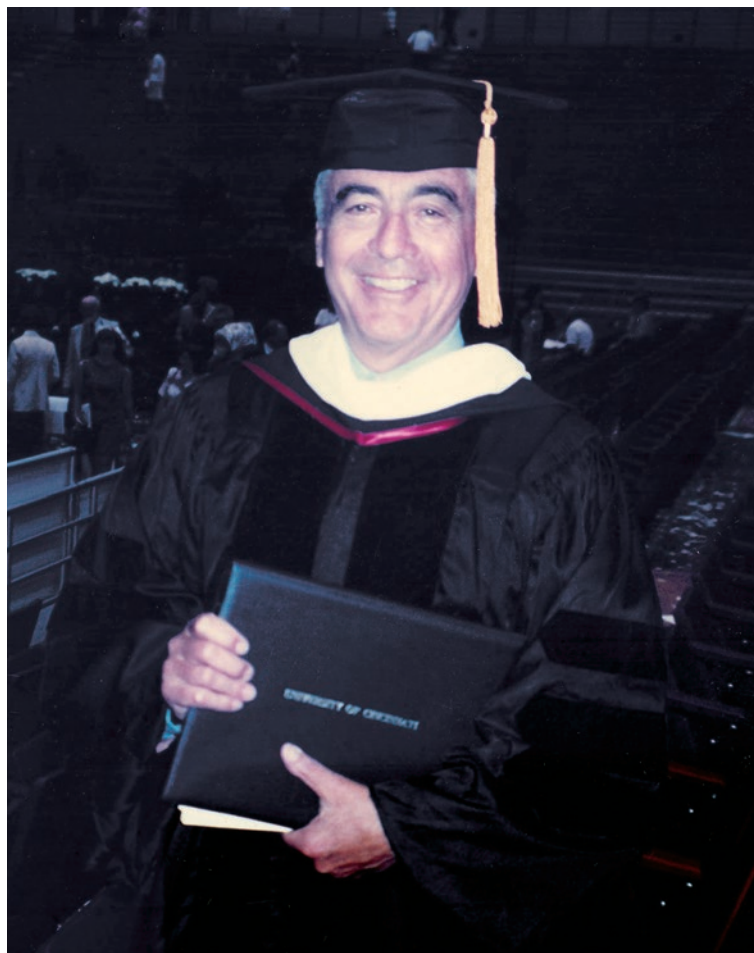


Figure 6. Lloyd at a University of Cincinnati ceremony conferring his honorary degree.

extra-large format. All are remarkable examples of historical, comprehensive, and illustrated study. *Japanese Bamboo Baskets: Masterworks of Form and Texture from the Collection of Lloyd Cotsen* was published in 1999. Lloyd's introduction reads:

This book is the culmination of a long journey that started in San Francisco, where I had my first "love affair" with a Japanese bamboo basket . . . my first "battered" basket. . . . In some ways it had the feeling of Japanese raku ware but in bamboo—spontaneous, swirling, but never out of control . . . that memory is strong and so is my love of Japanese baskets. . . . This book is dedicated to my late wife, JoAnne Cotsen, who was involved in my first purchase. (Cotsen 1999:10, 27).



Figure 7. A selection of Cotsen Occasional Press publications. (Photograph by Abhishek Goel)

Japanese Bamboo Baskets received the annual prize of the American Institute of Graphic Arts for its beautiful design. Lloyd donated the handsome and extensive basket collection to the Asian Art Museum of San Francisco, where it is currently on display. He established a prize awarded in 2000 and 2002 to the most outstanding Japanese bamboo artist and her or his most promising student. Both were invited to Los Angeles to meet and talk about their work with artists, educators, and gallery owners. Lloyd's hope was that this artistry-cum-craft would continue. He believed that recognition is important. The book, exhibition, and project are highly appreciated in Japan as well.

In 2009 the Cotsen Occasional Press and the Cotsen Institute of Archaeology Press co-published *The Lloyd Cotsen Study Collection of Chinese Bronze Mirrors: Volume 1, Studies; Volume 2, Catalogue*. Both volumes were edited by Lothar von Falkenhausen. Lloyd wrote in the acknowledgements: "To my wife, Margit Sperling Cotsen, whose insight and inspiration guide me through all the worlds of wonder" (Cotsen

2009:9). The mirrors were exhibited at the Huntington Library and subsequently donated to the Shanghai Museum. Lloyd explained that the treasures had come from China and should rightfully return there. That was more than generous; it is a model for treating artifacts without context. Send them home!

Lloyd and JoAnne both respected and believed in books, libraries, and education. Once parents, they added children's books to their home library. Selections changed over time as the children grew older. After JoAnne's tragic death, Lloyd decided to develop the collection in her memory. He became fascinated by children's books written centuries ago to help small persons learn to read and behave. By 1997 he had acquired many treasures, such as a Beatrix Potter first edition. With professional librarian Ivy Trent, on board since 1990, Lloyd chose

to present Princeton University with the collection. The Cotsen Occasional Press had begun publication of some of these treasures. A specially designed wing of the Firestone Library at Princeton now houses the Cotsen Children's Library. Speaking with Ivy Trent on October 8, 2017, I learned that it is the largest collection of its kind in the country, with some 100,000 books and ephemera. Volume 3 of the catalog of the Cotsen Children's Book Collection at Princeton is currently in production. In an e-mail dated October 9, 2017, Trent wrote:

Lloyd . . . had a great love of knowledge and of the book as a medium for conveying information. He was a visual animal and had a great eye. . . One of the traits that characterize books from the Cotsen Occasional Press in contrast to commercial publications was that Lloyd, first, wanted to illustrate all the items and, second, to realize the author's vision for the book. As a result COP books are comprehensive, copiously illustrated, and often very large, as when they facsimile an item in its original format. Not an economical approach to publishing.

Lloyd wanted to be remembered as a publisher

Traveling with him, to Japan to meet basket artists and to antiquarian book sales all over the world, his wife Margit became a full partner in Lloyd's magnificent obsession. She chose to publish one of the handsomest, most charming of the Cotsen Occasional Press children's book publications, *The Beatrix Potter Collection of Lloyd Cotsen, Published on the Occasion of his 75th Birthday*. In the foreword, Margit wrote:

"And so, to my husband, I dedicate this book out of love and appreciation for letting me share his pleasure and wonderment at Beatrix Potter and her creations." (Cotsen 2004).

His last publication *The Box Project: Works from the Lloyd Cotsen Collection* was paired with a concurrent exhibition at UCLA's Fowler Museum, Lyssa Stapleton, Lloyd's collections curator wrote:

"This remarkable group of works consisting of thirty-nine commissioned pieces by thirty-six international artists was assembled between 2004 and 2013 by Lloyd Cotsen and his then curator, Mary Hunt Kahlenberg, who passed away in October 2011." (Stapleton 2016:7).

Lloyd's publishing oeuvre is a marvelous, unique, inspired legacy. Margit recently told me that Lloyd wanted to be remembered as a publisher above all, and he will be. But Lloyd's was a multifaceted life, and it is clear how much he concentrated on continuous substantive, creative involvement. A thoughtful dedication from Lloyd, in the Cotsen Occasional Press publication *Practice Makes Perfect and the Training of Scribes in Byzantine Egypt*, encapsulates his thinking:

"To the students of ancient languages whose studies continue to unlock their secrets whether committed to rock, clay, wood, wax, parchment, or papyrus." (Cotsen 2011:vi).

All his informed and extended philanthropies in archaeology and education and his creative and generous spirit are woven together in what he has left behind. His works, so lasting, honor him, as do we all.

REFERENCES CITED

- Buccellati, Giorgio and Marilyn Kelly-Buccellati (editors). 1998. *Urkish and the Hurrians: Studies in Honor of Lloyd Cotsen*. Malibu: Undena Publications.
- Caskey, John L. 1957. Excavations at Lerna: 1956. *Hesperia: Journal of the American School of Classical Studies at Athens* 26(2):142-162.
- Cherry, John F., Jack L. Davis, and Eleni Manziourani. 1991. *Landscape Archaeology as Long-Term History: Northern Keos in the Cycladic Islands from the Earliest Settlement until Modern Times*. Monumenta 16. A JoAnne Stolaroff Cotsen Prize Imprint. Los Angeles: Institute of Archaeology, UCLA.
- Cotsen, Lloyd E. 1999. *Japanese Bamboo Baskets: The Visual and the Visceral*. In *Masterworks Japanese Bamboo Baskets of Form and Texture from the Collection of Lloyd Cotsen*, pp. 10-27. Los Angeles: Cotsen Occasional Press.
- Cotsen, Lloyd E. 2009. Acknowledgement. In *The Lloyd Cotsen Study Collection of Chinese Bronze Mirrors*. 2 vols. Lothar von Falkenhausen (editor), p. 9. Los Angeles: Cotsen Occasional Press and Cotsen Institute of Archaeology.
- Cotsen, Lloyd E.. 2011. Dedication. In *Practice makes Perfect P.Cotsen – Princeton I and the Training of Scribes in Byzantine Egypt*. Scott Bucking (editor), p. vi. Los Angeles: Cotsen Occasional Press.
- Cotsen, Margit Sperling. 2004. *The Beatrix Potter Collection of Lloyd Cotsen: Published on the Occasion of his 75th Birthday*. Los Angeles: Cotsen Occasional Press.
- Davis, Jack. 2003. Lloyd Cotsen in Greece: Some Reminiscences from the Field. In *Theory and Practice in Mediterranean Archaeology: Old World and New World Perspectives*. John K. Papadopoulos and Richard M. Leventhal (editors), pp. 33-41. Los Angeles: Cotsen Institute of Archaeology.
- Elster, Ernestine S. 1998. Lloyd Cotsen: A Brief Archaeological Biography. In *Urkish and the Hurrians: Studies in Honor of Lloyd Cotsen*. Giorgio Buccellati and Marilyn Kelly-Buccellati (editors), pp. 7-10. Malibu: Undena Publications.
- Papadopoulos, John K., and Richard M. Leventhal. 2003. *Theory and Practice in Mediterranean Archaeology: Old World and New World Perspectives*. Cotsen Advanced Seminar 1 in Honor of Lloyd Cotsen. Los Angeles: Cotsen Institute of Archaeology.
- Stanish, Charles. 2017. *The Evolution of Human Co-operation: Ritual and Social Complexity in Stateless Societies*. Cambridge: Cambridge University Press.
- Stapleton, Lyssa C. 2016. Working Inside the Box. In *The Box Project Works from the Lloyd Cotsen Collection*. Lyssa C. Stapleton, Matilda McQuaid, Bruce W. Pepich, and Jenelle Porter (editors), pp 7-11. Los Angeles: Cotsen Occasional Press. Los Angeles.

Ellen Pearlstein President of ANAGPIC and Recipient of Mellon Grant

Ellen Pearlstein was appointed president of the Association of North American Graduate Programs in Conservation. The association aims to strengthen and advance graduate-level education and training in art and heritage conservation. It meets regularly to provide a venue for the presentation and exchange of graduate student work and research. Its website, with student papers and posters, is updated regularly.

Together with Laleña Arenas Vellanoweth, Pearlstein received a grant from the Andrew W. Mellon Foundation to help increase diversity in the study and practice of conservation of cultural collections. The grant will support a four-year pilot program designed to provide materials and outreach to undergraduate students from fields such as studio art, art history, archaeology, anthropology, and physical sciences who are presently underrepresented in conservation; to develop workshops for interested students; and to fund undergraduate internships at museum conservation laboratories. Mentoring is another significant part of the program.

Up to fifteen students will participate in weeklong workshops, offered in the summers of 2018 and 2019. Designed to introduce students to the conservation



field, workshops will include a combination of theoretical discussions, practical exercises, and visits to museums and conservation laboratories in the greater Los Angeles area. Selected workshop participants will be offered internships in the summers of 2019 and 2020. These will provide an intensive practical conservation experience, required for applying to graduate programs in conservation.

Giorgio Buccellati Named Doctor Honoris Causa of the Ambrosian Library and Academy

Giorgio Buccellati, founding director of the Cotsen Institute, has been awarded a doctorate honoris causa at the venerable Ambrosian Library and Academy in Milan, Italy. This distinction is awarded as recognition of Giorgio's scholarly work and is given to very few scholars.

The Ambrosian Library was founded in 1608 by Cardinal Federico Borromeo. It was conceived as a center for study and culture and was one of the first libraries open to the general public. The library specializes in classical, historical, literary, and religious volumes directed at the study of the past. It is run by a board of fellows presided over by a prefect—who oversees cultural activities—and a board of trustees, which is responsible for administration. Former fellows and prefects include famous scholars such as historian Giuseppe Ripamonti, philologist Ludovico



Antonio Muratori, paleographer Antonio Maria Ceriani, and Achille Ratti, the later Pope Pius XI.

The library owns a large orientalist collection, numerous palimpsests—including the only surviving fragments of Plautus's *Vidularia*, dating to the fifth century—and rare incunabula, including an edition of Boccaccio's *Decameron*, printed by Christopher Valdarfer in Venice in 1471. The Ambrosian Library has fostered various subsidiaries, such as the Pinacoteca (1618), the Accademia del Disegno (1620), and the Collegio degli Alunni (1625).

Ioanna Kakoulli Shares Her Expertise beyond UCLA

Ioanna Kakoulli—until recently the Lore and Gerald Cunard Chair in the UCLA/Getty Interdepartmental Program in Conservation of Archaeological and Ethnographic Materials—served as the inaugural visiting professor of archaeological materials in the Department of Materials Science and Engineering at Massachusetts Institute of Technology during the first semester of 2017. Later that year she trained special agents and customs and border patrol officers in the Los Angeles area on issues related to looted antiquities, in collaboration with the State Department and the Cultural Property, Art and Antiquities Program of the Department of Homeland Security.



THE INSTITUTE IN THE NEWS



Alan Farahani (right) receives the award from Interim Vice Chancellor of Research Anne Karagozian.

Alan Farahani Receives a Chancellor's Award for Postdoctoral Research

At the beginning of 2017, Alan Farahani, postdoctoral scholar at the Cotsen Institute, received a Chancellor's Award for Postdoctoral Research. During the 2016–2017 academic year, the institute was able to hire Alan thanks to the generosity of longtime supporter Charlie Steinmetz. Thanks to the vision of Executive Vice Chancellor and Provost Scott Waugh, Alan will be able to continue developing our Early Agriculture and Paleoethnobotany Laboratory.



Robyn Price Grad Slam Semifinalist

Robyn Price, graduate student in archaeology and this year's assistant editor of *Backdirt*, reached the Grad Slam semifinal with a presentation entitled "An Archaeology of Scent: Unearthing the Human Experience." The Grad Slam is a University of California–wide annual contest in which MA and PhD students present their research in three minutes or less. In addition to this scholarly success, Robyn was elected to the Equity, Diversity and Inclusion Student Advisory Board.



View of level 4 Round Building, in the foreground, and additional level 4 architecture in left background. The mud brick structures radiate around the Round Building, with grain storage silos both inside and outside of that central structure.

Cotsen Institute of Archaeology Press Author Wins American Schools of Oriental Research Prize

I am very happy to announce that one of our authors, Glenn M. Schwartz, has just been awarded the G. Ernest Wright Award of the American Schools of Oriental Research for his book *Rural Archaeology in Early Urban Northern Mesopotamia: Excavations at Tell al-Raqa'i*, published by the Cotsen Institute of Archaeology Press in 2015. The annual award recognizes the author of the most substantial volume dealing with archaeological material, excavation reports, and material culture from the ancient Near East and eastern Mediterranean.

The publication and documentation of data and research in the archaeology of Syria and Iraq is more important than ever in view of the recent destruction of sites and cultural material in this region. *Rural Archaeology in Early Urban Northern Mesopotamia* presents the results of the extensive excavation of a small, rural village from the period of emerging cities in upper Mesopotamia (modern northeast Syria) in the early to middle third millennium BC.

This volume has been well praised for its emphasis on a small village and what its study can tell us. Schwartz deftly examines aspects of human community, showing how early social complexity developed. Small settlements in the Near East have remained in the shadows of great urban centers with their complex architecture and troves of artifacts, and especially their written records. The research presented here



A stylized bovid stone figurine with a pair of concentric circles on flank and shoulder, and horns. Pierced from the top to the bottom through the animal's back, it may have been a pendant or a bead, and used as a protective amulet for a child.

represents part of a move to rectify that imbalance.

A reviewer identified one of the author's most important contributions: "consideration within a matrix of the research and publication on all the other Khabur rescue sites excavated by various teams during the 1980s–1990s." Today, the meaning of rescue sites has an added urgency.

Glenn M. Schwartz is the Whiting Professor of Archaeology and chair of the Department of Near Eastern Studies at Johns Hopkins University.

— Randi Danforth

Academia Is Not a Zero-Sum Game

Hans Barnard

THE THEME OF THIS ISSUE of *Backdirt* is cooperation, collaboration, and outreach in the broadest possible sense of these terms. Academia in general and archaeology in particular flourish within strong communities of practice in which knowledge, data, and wealth are shared generously. It is a mistake to think that these are available in fixed, limited quantities. Efficient and effective cooperation and collaboration will instead generate more and more of these commodities and quite literally result in an outcome that is much more than the sum of its original parts.

Archaeology is fundamentally a multidisciplinary field of study: archaeologists habitually combine archaeological and anthropological research methods with elements adapted from geology, history, ethnography, and geography, as well as biology, material sciences, physics, statistics, (forensic) medicine, and (bio)chemistry. Archaeological theory is mostly anthropological theory but also includes elements of (evolutionary) biology, (art) history, physics, and philosophy. Archaeological fieldwork usually requires the close collaboration—often 24/7 for weeks at the time—of expatriate and local archaeologists, graduate and undergraduate students, government officials, conservators and other specialists, workers, volunteers, and sponsors. These particularities make the

discipline the most scientific within the humanities and the most humanistic within the sciences. Archaeology can thus be successful only with close cooperation between all these participants and may serve as paradigm for the insight that collaboration will lead to results larger than the sum of their parts.

Collaboration with colleagues, students, and staff can be satisfying, fun, and enriching, but there are also more fundamental reasons why cooperation will lead to goals that would otherwise be impossible to reach. Academia is mostly not a zero-sum game, meaning there can be winners all around with no obvious losers, provided that each participant is willing to cooperate. True, in the filling of a tenure-track position, there can be only one successful candidate, with all the others receiving nothing for their efforts. Most other aspects of academic life, however, thrive with cooperation between all involved—be they faculty, staff, students, or volunteers—and wither with adversity among them.

The archetypical zero-sum game is a coin toss; the victory of one player automatically means the loss of the other. Poker is an example of the same principle applied to more than two players. The sometimes significant amounts picked up by the winner come directly out of the pockets of the other players. The





sum of what they lose and what the winner receives equals zero; hence the term zero-sum game.

The archetypical example of a non-zero-sum game is the so-called Prisoner's Dilemma. Suppose there are two prisoners, each in their own holding cell. They are suspected of committing some serious crime together but are being interrogated individually, with no possibility to communicate. Each can choose to plead guilty or to betray the other while pleading not guilty. If both plead guilty, they will each receive a three-year prison sentence. If both plead not guilty, they will each go to jail for 10 years, as the police have additional evidence and the judge will not look kindly upon efforts to deceive the court. However, if one pleads not guilty while the other pleads guilty, the former will go free while the latter will stay in prison for five years. The best choice would be for each prisoner to plead guilty and accept a three-year prison sentence. What will likely happen, however, is that both will take the risk and plead not guilty, hoping the other will confess. They will thus both be locked up for 10 years, 7 more than would be the case had they cooperated.

An example of a non-zero-sum game with more than two participants is the Diner's Dilemma. If a group of friends goes out for dinner and agrees in advance to split the bill evenly among them, they are

There can be winners all around with no obvious losers

likely to each spend more than originally planned. Each dining friend is likely to infer that the cost of ordering a pricy dish will be divided among the group while ordering a cheap dish will result in a relatively large amount to be paid if others order more expensive food. The result is that each ends up paying more than he or she had intended before they agreed to split the bill.

Such non-zero-sum games are obviously not games in the common sense of the word. They instead serve as simplified examples for more complex situations in real life and are used as such by economists, psychologists, and sociologists. Their main implication is that cooperation in one form or another can dramatically change the outcome for all involved. As such, cooperation is at the basis of human society, as mathematically illustrated by economists Paul Samuelson and



Laurence Kotlikoff. Adult humans take care of the next generation when its members are young and vulnerable to ensure that they will grow up to take care of their elders when these become old and frail. The better a society takes care of its children, the better these will be able, and most likely also willing, to take care of their seniors. This transgenerational Ponzi-scheme, which is partly genetically embedded by evolution, is the foundation of human civilization. In academia, where old professors never die, we need to take the best possible care of our students and encourage them not to pay us back, but rather pay forward to the next generation.

These insights emphatically apply to an organization like the Cotsen Institute, which largely depends on academic prestige and donations from institutions as well as private donors. The success of each individual affiliate will reflect positively on the organization as a whole and increase the chances of further success, including that of all other affiliates. Obstructing another's progress, on the other hand, will negatively influence those chances, because nobody likes to invest time, effort, or money in an organization suffering from perceived or actual internal discord.

If a donor intends to supply the funds to establish an endowment to study a specific subject in a specific

area or time period, it makes little sense to criticize her or his intentions impulsively. Funding that does not go to one does not automatically go to another, and certainly not to those sounding a critical note. It may well be completely withdrawn instead. The energy expended to engage in such disputes is better invested in a separate search for funding and the possible outcome of two grants rather than none. Similarly, if a colleague applies for a salary increase for a specific and legitimate reason, it is not judicious to argue or vote against that out of spite. Quite the contrary, if the overall pay level within an organization goes up, it will only increase one's own chances of getting a raise. As John F. Kennedy kept reminding us, "A rising tide lifts all boats." A stronger institution will benefit all involved. We can all think of colleagues whom we would be less willing to collaborate with, as well as colleagues who appear less willing to cooperate with us. The best long-term strategy to deal with this is to swallow one's pride, like the prisoners in their holding cells, and remember the words of Dr. Martin Luther King Jr. in "Letter from Birmingham Jail": "We are caught in an inescapable network of mutuality, tied in a single garment of destiny. Whatever affects one directly, affects all indirectly."



Preserving Our Ancient Art Galleries: Volunteerism, Collaboration, and the Rock Art Archive

Wendy All

NAMIBIA CONTAINS SOME OF the best African rock art, and in April 2017 I visited two rock art sites. After clearing customs at Hosea Kutako International Airport, my hosts and I set out by van toward our lodgings in Windhoek, the capital of Namibia. The landscape looked remarkably like the Mojave Desert, where I participated in field surveys with Jo Anne Van Tilburg and the UCLA Rock Art Archive. Suddenly our driver skidded to a stop to allow a troop of baboons to cross the road—a reminder that we were in southwestern Africa and not in California. Dramatic moments like this characterized the international rock art colloquium led by Neville Agnew of the Getty Conservation Institute, held April 21–May 1, 2017, in Namibia. The title of the colloquium was “Art on the Rocks: A Global Heritage.” Its stated purpose was to bring attention to endangered rock art treasures, the ancient art galleries that document our human story.

Worldwide, rock art—which includes petroglyphs and pictographs, some as much as 40,000 years old (Taçon et al. 2014)—is endangered by politics and policies, the environment, lack of resources, vandalism, and ignorance. Until recently, rock art was marginalized in mainstream archaeology, partially due to the difficulty of dating petroglyphs in particular.

Suddenly our driver skidded to a stop

Paintings in caves and shelters are usually protected from the elements and often contain organic materials, allowing radiocarbon dating. Petroglyphs, pecked or carved into rock faces and often exposed to the elements, prove more challenging. Recent dating methods consider petroglyphs in context with other ethnographic evidence.

The mission of the Getty colloquium was to explore ways to elevate rock art to a higher level of awareness in public and political spheres, with a focus upon its preservation. At Agnew’s direction, my assignment was to present the successful volunteer program of the UCLA Rock Art Archive, directed by Jo Anne Van Tilburg, by sharing lessons learned and inspiring others to create similar programs. The Rock Art Archive and its volunteers have pursued and achieved numerous goals. We received the Governor’s Conservation Award in 2001 for the Captured Visions project, which documented seismic and other environmental changes impacting the petroglyphs at Little Lake Ranch which led to the publication of *Rock Art*

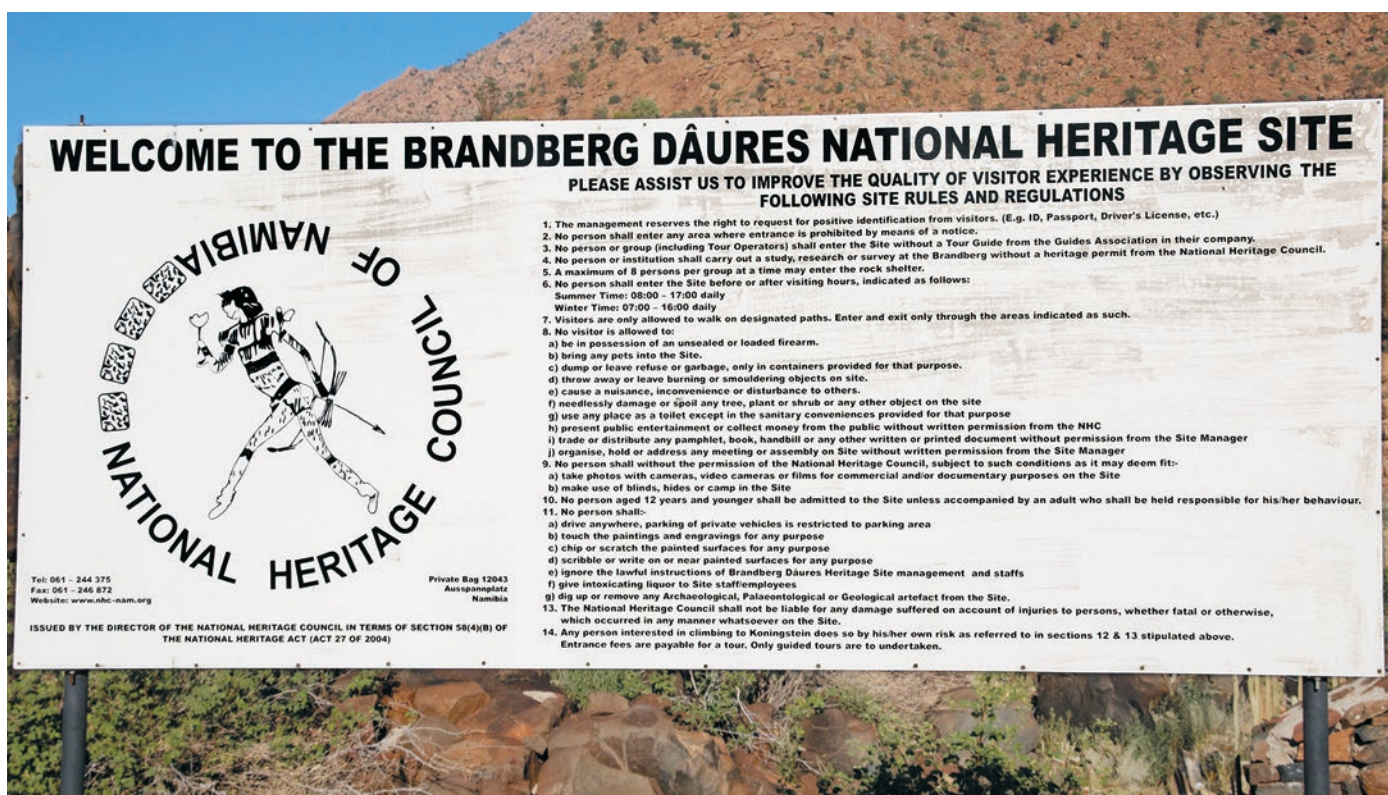


Figure 1. Location of Brandberg and the White Lady of Brandberg panel entrance sign. (Image courtesy of the Bradshaw Foundation)

at Little Lake: *An Ancient Crossroads in the California Desert* (Van Tilburg et al. 2012). Several volunteers have entered graduate programs based on their experience with the archive. My involvement with the volunteer program resulted in an invitation to attend the colloquium in Namibia. The volunteer program has truly developed into something much greater than the sum of its parts.

The Getty Group, as we came to be called by our Namibian hosts, was an international gathering inspired by the publication of *Rock Art: A Cultural Treasure at Risk* (Agnew et al. 2015). The publication identifies “four pillars of rock art conservation policy

and practice”: (1) public and political awareness; (2) effective management systems; (3) physical and cultural conservation practice; and (4) community involvement and benefits. All authors of the publication were present, and each day of the colloquium was dedicated to a different pillar. These discussions alternated with visits to rock art sites. What made the gathering unique was the array of additional invited participants, including archaeologists who specialize in rock art and those with a passion to increase the public awareness and understanding of rock art.

The latter included the Bradshaw Foundation,¹ which provides extensive online learning resources focused on ancient rock art and the artistic achievement of early humans; the producer of the 3D movie *The Final Passage: Chauvet-Pont d’Arc Cave*; the director-curator of the Altamira Cave replica; and myself, a volunteer at the UCLA Rock Art Archive since 1998. While my degrees are in linguistics and in advertising and illustration, and I make my living as a designer and writer, rock art has always had a visceral pull for me. Attending Jo Anne’s classes in 1997 through UCLA Extension was an extraordinary opportunity to learn about and document rock art in the California desert, where some petroglyphs are 8,000 years old. The experience was compelling and led to me to volunteer at the archive.

The first day of the colloquium was held in

1. www.bradshawfoundation.com

Windhoek. The next day we began our trek toward two rock art sites in the Erongo region, also known as Damaraland, about 300 km to the northwest. The Brandberg (“Burning Mountain”), named for the reflection of the sun on its pink granite surfaces, is the highest mountain in Namibia (Figure 1). Surrounded by windswept clouds, it loomed orange-violet across the Namib plain. It grew ever larger as our caravan made its way toward White Lady Lodge, whose sign proclaimed it to be “Home of the Desert Elephants.” Named for the most famous rock art site in southern Africa, the White Lady of Brandberg, the lodge is an oasis with everything except Wi-Fi. All devices had to be charged in the main lodge, which houses the only accessible source of electricity (Figure 2). The rooms and chalets are solar powered. We were disappointed to hear that elephants had been last sighted about 20 km away, but we were treated to blazing sunrises against the Brandberg, sweet-smelling mopane wood campfires, and every night the Milky Way. In this picturesque setting, we continued the colloquium.

My presentation was part of Pillar 4: community involvement and benefits. It touched upon the history of the Rock Art Archive and stressed that building a successful volunteer program is not a formula as much as a recipe requiring the right ingredients, good chemistry, and a great chef. Lessons learned formed my outline: How do you attract volunteers? How to you lead, motivate, and keep volunteers? How do you reward and recognize volunteers? They are, after all, “citizen scientists.” UCLA Extension classes and other programs created by Jo Anne Van Tilburg have attracted volunteers with a wide array of skills, which were recognized, encouraged, and put to work in both the field and the laboratory. Leadership by a professional archaeologist is critical. Jo Anne directed us toward mutually agreed-upon goals, but she had final authority. In addition, we recognized that being a volunteer can be a reward in itself and provide a variety of

experiences, including a sense of community. Each of us had the opportunity to find something that resonated with our interests and to make a contribution to something larger. We received recognition in the form of credit for publications, personal satisfaction, finding new friends with common interests, and other

A successful volunteer program is not a formula as much as a recipe

perks, such as a trip to Namibia. There was one last “secret ingredient” that I shared in my presentation. At all public outreach events, we ask people interested in news about the Rock Art Archive to sign a guest book. One never knows where new volunteers will come from, and when the time comes for fund-raising, it helps to have a mailing list. Not only has the volunteer program proven to be greater than the sum of its parts, it was gratifying to share our methods as they aligned with the goals of the Getty colloquium.



Figure 2. The only accessible source of electricity at the White Lady Lodge was this charging station. Everything else was solar powered.



Figure 3. Detail of the White Lady of Brandberg panel. (Image courtesy of the Bradshaw Foundation)

The day after my presentation, we visited Dâures National Heritage Site, home of the White Lady of Brandberg (Figure 3). Although the most famous African panel, likely due to its poetic name and the history of its interpretation, it is only one of many rock paintings and rockshelters in Tsisab Gorge and the upper Brandberg. Since its discovery by German topographer Reinhard Maack in 1917, it has been a source of controversy. Maack saw the White Lady pictograph as depicting “a procession of people, animals and mythical creatures.” He made a sketch while noting in his diary that “the Egyptian Mediterranean style of all the figures is surprising,” a comment that sparked speculation, myth, and debate for more than half a century. In 1929 Henri Breuil, a French archaeologist specializing in Paleolithic art, saw Maack’s sketch while visiting South Africa, but he was not able to visit the panel until 1947. He made new copies of the painted images and, based on his observations, declared the central figure to be a young woman of Minoan or Cretan origin, whose presence he explained by an ancient Mediterranean visit to this region of Africa. The legend of the White Lady of Brandberg was born.

Today scholars agree that the White Lady is actually a male figure. Both Maack and Breuil failed

to notice the figure’s penis. Researchers have also dismissed any European connection. The figure is now generally thought to be a San (Bushmen) painting of a young male hunter, dating back at least 2,000 years. The panel is in a secluded grotto, a 45-minute walk from the visitor’s center. Because of the heat, it is suggested that everyone carry at least a liter of water.

Visitors threw water and soft drinks on the pale images

However, visitors are not allowed to bring bottles or backpacks into the rockshelter, which is protected by a rain drip guard and a fence (Figure 4). As late as the 1960s, visitors threw water and soft drinks on the pale images to enhance them for photographs, damaging the delicate features—a further reminder of how proper site management and public awareness can make a difference.

Our Damara guide said that more than 1,000 rockshelters preserve paintings in the upper Brand-

berg. She had been to a number of them but knew of others only from local informants. We followed her deeper into the gorge, scrambled over boulders, and leaped across marshy growth and the fragrant evidence of elephants to view more, though none were as elaborate as the White Lady panel. Our guide led us to a rockshelter with enough room for our group of two dozen. As we took a break from the heat, to our delight she performed songs in her particular dialect of the Khoekhoegowab language, which includes four different click consonants. Her sonorant tones and clicks reverberated inside the chamber with its damp mineral smells, reinforcing the power of the area as a sacred space. She then demonstrated the different click consonants for us.

“When our babies learn to talk, they don’t use clicks until they are about two years old,” she said, “but we can understand their baby talk.”

“What if one of us tried to speak your language without the clicks?” a member of our group asked.

“I would not understand you, not even like baby talk. You must use clicks.”

It was sad to leave the colorful Brandberg after our four-night stay, but we looked forward to Wi-Fi at our next destination. We drove many kilometers over washboard roads to Twyfelfontein Lodge. Twyfelfontein (“Doubtful Spring”) is a relatively new name for a very old freshwater spring, known as /Ui-//aes to the Damara people who lived there. Nestled in a cleft of a red rock outcrop, the main lodge fulfilled my fantasy of a thatched-roof African tree house, and the carving station at the dinner buffet was exotic (Figure 5).

“Is that chicken you’re carving?”

“No, it’s crocodile; tastes like chicken.” (It tasted more like swordfish to me.)



Figure 4. Site management at the White Lady of Brandberg site. Note the rain guard strip above and gravel below to keep dust at a minimum.



Figure 5. The dining area inside the main lodge at Twyfelfontein.

The next morning we visited Twyfelfontein, a UNESCO World Heritage Site. It was enlightening to compare it to the White Lady of Brandberg site. Although both had a visitor's center made of natural materials at the entrance, the one at Twyfelfontein was designed to blend in with the landscape, as if sprouted from fertile red sandstone crossbred with iron. At the site, one of the largest collections of rock engravings or petroglyphs in Africa, unobtrusive flights of steps

We all want to leave our mark

allow visitors to move easily among the artwork, while metal platforms afford a view of some unreachable panels. Hundreds of images are crowded together on huge boulders covering the hillside. Mingled among zoomorphic motifs and famous images such as Lion Man and Dancing Kudu are engravings of human hands, animal footprints, and entire panels of abstracts, cupules, and pictographs surviving in rock-shelters. The rock art at Twyfelfontein was produced during the dry season, when a shortage of water and food forced people to congregate near the spring. Twyfelfontein saw its greatest flowering during the last 5,000 years, a period of increasing aridity, during which hunter-gatherer communities developed and



Figure 6. The author contemplates rock art at Twyfelfontein. (Photograph by Peter Robinson)

engaged in a wide range of survival strategies.

In contemplating it all, I realized how time spent with the Rock Art Archive had enhanced my appreciation (Figure 6). There is little difference between who we are today and those long-ago artists. We all want to leave our mark, to let the world know, "I was here" and "what I attempt to communicate is important." Our guide next drew our attention to fresh elephant



Figure 7. Elephants on the grounds of Twyfelfontein Country Lodge. (Photograph by Noel Hidalgo Tan)

footprints in the red sand along the pathway—footprints the size of dinner plates with ridges, each with its own signature, like human fingerprints. She said the elephants had come through earlier that morning. We had missed them again. Wired and tired, we returned to the lodge. Something was going on. As we entered the property, our caravan slowed to figure out why so many other vehicles were stopped, why jeeps and vans hovered, their doors and windows open. Elephants! A family of about eight adults and two calves was walking away from the main lodge, stopping at one point to take a dust bath. The calves flung dust over their backs and then at each other. They twirled around, almost dancing, within the safety of the herd. We threw our van door open, cameras snapping, zoom lenses telescoping. Our van moved as quietly as possible to follow the animals (Figure 7). The most unexpected part was their silence; these gigantic beasts moved without sound. All we heard, other than idling engines, camera clicks, and our gasps of delight, was the red dust cascading through the wind as it hit the ground. As I write about my Namibia experience, no one thing stands out, as so many moments were

outstanding. To paraphrase John Steinbeck, there is something about Africa that bites deep. “It is a dream place that isn’t quite real when you are there and becomes beckoningly real after you have gone.”

REFERENCES CITED AND FURTHER READING

- Agnew, N., J. Deacon, N. Hall, T. Little, S. Sullivan, and P. S. C. Taçon. 2015. *Rock Art: A Cultural Treasure at Risk*. Los Angeles: Getty Conservation Institute.
- Pager, S. A. 1999. *A Visit to the White Lady of the Brandberg*. Windhoek, Namibia: Benuela Publishers.
- . 1985. *A Walk through Prehistoric Twyfelfontein*. Windhoek, Namibia: Typoprint.
- Taçon, P. S. C., N. H. Tan, S. O’Connor, J. Xueping, L. Gang, D. Curnoe, D. Bulbeck, B. Hakim, I. Sumantri, H. Than, I. Sokrithy, S. Chia, K. Khun-Neay, and S. Kong. 2014. The Global Implications of the Early Surviving Rock Art of Greater Southeast Asia. *Antiquity* 88:1050–1064.
- Van Tilburg, J. A., G. Hull, and J. C. Bretney. 2012. *Rock Art at Little Lake: An Ancient Crossroads in the California Desert*. Los Angeles: Cotsen Institute of Archaeology Press.



A Day in the Life of a Rural Indian Cowherd

Steven Ammerman and Kunil Behera

ARCHAEOLOGICAL INVESTIGATIONS on the coastal plain of Odisha State in eastern India have recently shed light on the emergence of urbanization corresponding to the Early Historic period of the subcontinent (third century BC to fourth century AD). An international team from UCLA and Decan College in Pune, India, has worked on excavating large-scale urban sites such as Sisupalgarh, as well as smaller town-size sites such as Talapada, with the goal of understanding the network between different types of sites that emerged during this period of intensified urbanization. A key factor of this network is the relationship between the human inhabitants in the region and the animals in their ecosystems, an interaction that has had major repercussions in both ancient and modern times.

We stayed in Talapada during the winter 2017 field season. The modern village of Talapada, which gives its name to the archaeological site, is located about 40 km southwest of Bhubaneswar, the capital of the state. It is a small village with an economy that relies primarily on rice agriculture. Animals are an inescapable part of daily life. Monkeys bound up and down mango trees and scramble across the roofs of houses; dogs trot along the dirt streets that are the main thoroughfares in the village and look on hopefully as people toss out scraps; the footprints of the

occasional venturing elephant are sometimes in plain view; and, most of all, cattle are omnipresent and are the most abundant livestock animals in the village. As in most of India, cattle are not used for meat at Talapada. Rather, they are sources of tractive power, mostly provided by bullocks, and of dairy products, provided by calving females. Most families at Talapada contract the services of a professional cowherd (Figure 1).

With the observed abundance of cattle in mind, we made arrangements to shadow the only cowherd who serves the village. Our goal was to answer several research questions: For what are the animals used? What are the requirements for these uses of animals and what do people do to address these requirements? How do the necessities created by these uses structure the social relationships that people have with their animals and with each other?

The following day, at around 10 in the morning, we joined the cowherd when he stopped to collect the cows belonging to the family with whom we were staying (Figure 2). He and his wife, each starting from a different end of the village, had already gone around most of the town gathering the cattle. The resulting herd, numbering about 100 animals, consisted mostly of cows and calves, with the bullocks remaining with their owners to perform physical labor while being fed



Figure 1. The cowherd gathers cows in Talapada. (Photograph by Monica Smith)



Figure 2. The authors about to set out. (Photograph by Monica Smith)



Figure 3. Cattle going out to the fields. (Photograph by Steven Ammerman)

agricultural by-products. As the cowherd explained, it is not necessary for the cows to be kept at home because they are milked a fixed number of times per day and thus do not need to be around their owners at all times. Bulls, very few in number, roam freely, technically under the ownership of the local temple.

After meeting the cowherd's wife and her group of cattle at the cricket field on the outskirts of town, we proceeded with the animals to the rice fields outside of town. At the time of our observations, the rice had already been collected and the fields were covered in stubble (Figure 3). The animals fed as they walked, occasionally stopping to drink, but as the cowherd explained, the brunt of the feeding is placed on a single set of fields each day. Importantly, an effort is made to distribute the burdens and benefits of having the cows graze on someone's property by rotating the location to which the cows are taken each day. This is significant in terms of social interactions. We

observed that the animals preferentially fed on new plant growth coming up between the stubble, which helps control the growth of weeds in the fields during the off-season.

A subsequent stop back at the cricket field underscored the importance of cattle to the population of Talapada by revealing a system that allows the cowherd and his family to have a high economic position within the village. At the cricket field, the cows chewed their cuds and napped, and the calves supplemented their grazing by drinking their mothers' milk. Although the cowherd is compensated in crops and cash, a very significant advantage to his position derives from the fact that any dung the cows produce at this rounding place becomes his property to collect and commercialize as he wishes (Figure 4). This, in the case of this particular cowherd, has resulted in the personal ownership of 10 heads of cattle as well as a herd of goats, large numbers by village standards.

Dung is an important resource for use as both fertilizer and fuel, and it can be sold to families who do not have their own livestock.

At around three in the afternoon, the cowherd once again ushered the herd into the fields to graze, taking them to a different location than in the morning. After a few hours, the herd was walked through the village and each animal returned to its owner's home. Demonstrating the degree of appreciation people have for their cattle, owners carefully inspected them for any ticks or burrs picked up while grazing.

Our observations took place in January, the coolest and driest part of the year. According to the cowherd, herding the cattle during the extremely hot and dry weather prevailing from March to May would cause too much physical stress on the animals. Thus they are kept close to home and foddered to the degree that availability permits it. Also, during the monsoon season the fields are not available for grazing, to protect

the crops. The cattle are instead left to graze freely on the abundant plant life of the season.

All these observations illustrate points that need to be addressed when considering the past. The topic of animal husbandry as a source of community is clear in the execution of organized practices for shared economic benefits. Also, economic ramifications resulting from herding practices are apparent in the economically comfortable status of the cowherd. While the specifics of herding practices may have changed between the Early Historic period and the present, our observations at Talapada highlight points of interaction between humans and animals that generate practices and shape how people live, both in the past and the present. Information like this is vital for complementing more technical archaeological analyses.



Figure 4. Cattle in the cricket field; note the pile of dung on the right. (Photograph by Steven Ammerman)



Community Archaeology 1984: At the Interface between Practice and Theory

Giorgio Buccellati and Marilyn Kelly-Buccellati

THE “1984” IN OUR TITLE does not refer to George Orwell’s novel. It was simply the year we began excavations at Tell Mozan, Syria, which proved to be ancient Urkesh. The reason for including it here is to stress the significance of chronology. From the very beginning of our work in 1984, we engaged in what is now called community archaeology. We did not set out to undertake a specific program in that direction. We relied on plain common sense as we developed an approach that was very simple and practical.

The trajectory of this approach is interesting in two regards. On the one hand, starting from a very practical set of needs, we came to reflect more and more on the theoretical implications and presuppositions of our work. On the other hand, and more importantly, our whole effort was put to a severe test by the war in Syria beginning in 2011, and in this test we found an unexpected validation of our basic procedures and goals. We will not review here the specifics of these procedures, as we wrote about them in detail in the 2015 issue of *Backdirt*¹. Suffice it to say that since the beginning of the conflict, our four main areas of activity have continued unabated, just

as we described them in 2015 and in some cases with considerable enhancement. These areas are:

1. Conservation: The exposed architecture continues to be in perfect condition, thanks to the simple but very effective conservation system we developed at the start of excavations in 1984, entirely based on local resources and know-how.
2. Site presentation: Our extensive signage system has been fully reactivated with around 200 signs explaining the site to visitors. In addition, in December 2016 we published an 80-page booklet in English, Arabic, and Kurdish. We get a considerable number of visitors at the site, all from the surrounding region.
3. Research: Three of our local assistants continue to work on the data in our archives and on the ceramics stored in the expedition house. Together with the local university, we host seminars where students can work on our material, both at the university and at our site, which is the only excavation site effectively available for such purposes.
4. Economic development: We support local women who produce traditional handicrafts (clothes, dolls, jewelry), which they can sell locally or ship to us.

1. For a recent update, see G. Buccellati, “From Urkesh to Mozan: The Itinerary of a Project in Wartime,” forthcoming in a volume edited by Tomasz Waliszewski.



Figure 1. Tourists visit Tell Mozan in April 2015.

A close look at three photographs taken at Tell Mozan is instructive. In succession, we see a group of what we might call lay visitors (the parasols give it away); a group of local university students at the conclusion of a study trip; and a class on surveying, part of a two-day workshop we sponsored for 25 university students. These are different groups engaged in different activities, spending either free or educational time at the site. The dates also tell a tale. These visits all took place at the height of the war. This shows the coherence of a program that has remained fully active for more than six years. During this time, we maintained a very close and direct engagement, even though we could not be physically present at the site. While the war did not affect the site directly, it came close enough—about 60 km (40 miles) away. The main problems at other archaeological sites in the area have been the weather and looting rather than the direct impact of the war. That the architecture at Tell Mozan is in perfect condition, that no vandalism has occurred, and that the signage system still elicits widespread interest is indicative of the success of our efforts. The site's impact on the community throughout this period is the best validation of what community archaeology has come to mean in a very concrete sense.

It is not just the direct consequences of a full-blown war that must be considered. A sense of fatigue

Our whole effort was put to a severe test by the war

and the reordering of priorities in life would normally affect any interest in visiting mere ruins. These photographs show that our communities are really nourished by archaeology and find in it far more than passing entertainment. They find a source of hope.

We can draw larger implications from this. To the extent that fanaticism and terrorism feed on a need for values and propose a perverse measure of ideology, our response should point in the direction of what we believe to be true values. Archaeology, if rooted in a sense of community, can indeed do this. It is clear that none of the young men and women in these photographs will ever join the so-called Islamic State or any of the comparable fundamentalist groups that are wreaking havoc in their country. Here the term *community* finds a larger meaning than the one typically associated with it. It emerges as the reservoir of shared ideals that give strength in moments of crisis, and of extreme crisis at that.



Figure 2. Local university students pose on the monumental staircase during a study trip to Tell Mozan in April 2016.

Of course, we have never been taught to think in terms of community archaeology. Nor did we consciously set out to develop a method. Yet in practice we did. As mentioned above, the steps we took led us to reflect on the work we were doing and in this sense to give shape to the general principles that inspired us as we conducted our project. In articulating them here, we do not refer to an established body of research. We simply describe a personal experience.

THE LEGACY OF THE TERRITORY

There is a special dimension in the relationship to the territory that uniquely affects the people who live in it. Their sense of the environment does not compare to our sense of it, as we are guests for a limited period of time. Theirs is truly a legacy of which we are not heirs. In this regard, then, community archaeology means that community members embrace us and offer us a share of the insight derived from their loyalty

to this territory. Their identification is not with just the material remains of the past but with the matrix within which these remains are embedded. There is no direct continuity with the people who lived there. In our case, at any rate, it is very much a broken tradition, because no one has lived at the site for the last 3,000 years. But there is the continuity of the land, of the territory as a resource and as a landscape. It is the continuity of the response people give to conditions that affect us today as they affected the ancients.

Superimposed on the broken traditions there are new, living traditions that are rooted in the same territory and that respond to the same triggers. This extends beyond the geography of the territory. It reaches customs and habits that are dependent on the available resources. We see here the common presupposition of what we have come to call ethnoarchaeology, where *ethno* refers not to an ethnic identity but rather to the folk or vernacular aspect of culture. If

these customs and habits help us in seeking an explanation for ancient phenomena, it is by way of analogy; but an analogy that rests on solid ground. For while there may be no continuity in the community as a subject, there is continuity in the setting within which the community of today, like the one of the past, operates.

COMMUNITIES

The notion of community refers generically and vaguely to people connected with an excavation site. But different individuals, different communities, have varying degrees of interest, which potentially even conflict with each other. Nor is there an obvious organizational table that spells out from the beginning for the archaeologists what the various alignments are. In our case, we had the villages around the site, with competing interests among them. There were the towns and cities in the immediate vicinity, where the site was generally viewed with a distant interest. There were the authorities, at different levels, who had specific responsibilities regarding the site and therefore our presence in it. There were the visitors from elsewhere in Syria and from abroad, who traveled some distance because our site is out of the way of normal itineraries. These were all communities of one type or another, and we had to be responsive to all.

Our approach was to nurture a basic respect for all. And this respect, being authentic, was invariably met with an equal form of respect. On occasion, we had to take positions that were counter to the interests of one community or the other; for example, recommending against granting building permits or excavating and moving contemporary burials. The common ground we could offer was the value of the territory as the repository of history, a history that properly belonged to them and into which they were admitting us as guests. It was as if we could offer them one more community, that of the past. And in this new community they could find, as we could, a common ground for a deeper sharing of interests.

SYMMETRY AND ASYMMETRY

With our staff, we were in fact a parallel community ourselves. Recognizing this was important: maintaining our identity was the best way to relate to the identities of the other communities. Integration does not, anywhere, mean the flattening of identity. Rather one is reciprocally strengthened through the affirmation of the values proper to each. Never trying to be more local than the locals, we came in fact to be fully local in a properly symmetrical way. It is, we may say, the symmetry of asymmetry: by recognizing the

asymmetrical nature of the relationship in a variety of single details, we could enjoy the symmetry of the relationship when it came to fundamentals.

As archaeologists we have an obligation to local communities, but upstream of that also to scholarship and even to legal requirements. For instance, we could not abdicate control over the treatment of antiquities. Taking a strong stand in this regard—which in one case meant opposing a local notable who had assembled a private collection—meant that these other communities came to absorb fully the conviction that protecting the territory was a shared respon-

Being the guardians is not so much a duty as a privilege

sibility. To this we attribute the total lack of vandalism at our site during these six years of war. The communities have come to share in the belief that being the guardians of the site is, in effect, not so much a duty as a privilege.

THE PROCESS OF EDUCATION

This takes us to the last point, one that gave us a lot to ponder, simple though it may seem at first. We felt an obligation to educate the communities with which we were in contact, at their different levels. But how could we not project an image of superiority, of neo-colonialism; one we wanted specifically to avoid? The notion of a symmetrical asymmetry helped us in this regard. Acknowledging an expertise that objectively sets us apart, we also acknowledged, and intensely so, the fact that we shared beliefs in deeper values resulting in a full measure of commonality. The perceived sense of responsibility helped to place in the proper light situations that seemed at first perilously negative.

In one such case, members of one community believed that they were the direct descendants of the population that had inhabited the ancient city of Urkesh, which we were excavating. There were large festivals held at the site, with thousands of people taking part. But there is no factual basis to this claim: the ancient city was abandoned some three millennia ago, and the population that hailed from it, the Hurrians, completely disappeared from history. The explanation we gave was received with disbelief at first. It was the coherence of our message, the effort at presenting all



Figure 3. A class on surveying during a two-day workshop at Tell Mozan, September 2017.

the facts regarding the site with scholarly integrity, that gained the full acceptance of the local community involved.

LET MY CITY BECOME A TELL

The word *tell* refers to a cultural hill, an archaeological site that is immediately recognizable in the modern landscape of Syria and Iraq. The many tells that dot this region are at the root of the territorial legacy we have been discussing. By way of conclusion, we wish to quote a Sumerian text that in some ways also speaks to the issue of community archaeology. The Arabic word *tell* comes from the Akkadian word *tillu*, which in turn derives from the Sumerian *dul*. A Sumerian text (the epic of Enmerkar and Ensuhgirana), which very likely dates to the middle of the third millennium, contains (at line 133) the following remarkable verse: “Iri-mu *dul* hé-a, ġá-e *šika-bi* hé-me-en” (“Let my city become a *tell*, let me become its *sherd*”).

This is spoken by the ruler of Aratta—a city in what is now Iran—who against the advice of his elders decides to wage war against the Sumerian city of Uruk. He takes this course of action, he says, even though it might be the cause of his ruin and that of his city. Let the city become a tell once it is destroyed, and let him end up being no more than a mere pottery sherd within the matrix of the earth. It is a very powerful statement, all the more so if one considers

A sharp sensitivity for the archaeological dimension of life

that we are, at that point in time, only a few centuries after the beginning of cities as a result of the urban revolution. Yet there were already ruined cities that had become mere tells.

There were already, in other words, ruined cities buried under their own collapse. And there was, accordingly, a sharp sensitivity for the archaeological dimension of life. The tells were visible as features of the landscape, but more than that they suggested a continuity of life. They were hills, but at the same time they were the repositories of history. They contained pottery sherds, and a single sherd could be chosen as a metaphor for a spent life. The archaeological dimension is even more apparent in a later Babylonian wisdom text, the so-called *Dialog of Pessimism*, where at some point we read (lines 76–78, in a somewhat free rendering): “Go up any of the ancient tells and walk about, see the skulls of people from ages ago and from yesteryear: can you tell the difference?” The legacy of the territory was already felt then. There was already, we may say, community archaeology.



Turning Points: A New Project in a New Era of Archaeology in the Near East

Aaron A. Burke

FOR THE PAST DECADE I HAVE codirected the Jaffa Cultural Heritage Project, a multidisciplinary archaeological research project focused on exploration of the much-neglected site of Jaffa on the south side of Tel Aviv in Israel (Figure 1). The site, like so many in the Near East, generated an embarrassment of riches, yielding many studies recently featured in several edited volumes (Peilstöcker and Burke 2011; Peilstöcker et al. 2013; Burke et al. 2017a, b). This archaeological research project enjoyed considerable support from UCLA and extramural agencies such as the National Endowment for the Humanities (collaborative grant RZ-51445-12, “Insurgency, Resistance, and Interaction: Archaeological Inquiry into New Kingdom Egyptian Rule in Jaffa”). Analysis of the results will continue for several more years as we prepare the data for publication. While such a project can be considered a success on many levels, the diverse range of studies it yielded challenges a director to focus the research on specific topics and perhaps reveals the greatest problem plaguing mound-based archaeology in the Near East. It is simply stretched too thin on too many fronts.

Traditionally in Near Eastern archaeology, an archaeologist identified a site and set up shop for 5,

10, or even 30 years. Overall research designs were shaped by the cultural history of any given excavation area, with hopes, but not necessarily with any certainty, that the area would yield remains viable for further study. Excavation directors sought to insulate themselves from the difficulties that multi-period sites brought by creating research teams to address inevitable encounters with strata associated with periods that were not of principal interest. Consequently, excavation directors paid a “surcharge” to eventually excavate the strata of their primary interest, often supporting, if grudgingly, the analysis of finds from periods in which they had little training and usually less interest. This effectively describes the long-standing relationship of Near Eastern archaeology with the archaeology of the classical, medieval, and premodern periods at too many sites. It remains true today, even if greater resources and research design narratives are proclaimed. While it is hard to know how much of what has been excavated was excavated under these circumstances, I estimate that as much as three-quarters of typical excavation efforts are regularly dedicated to dealing with remains ancillary to the primary interests of the director. Such circumstances were not foreign to our efforts in Jaffa, although the



Figure 1. Excavations at the Ramesses Gate in Jaffa, 2013.

“surcharge” had been paid by earlier excavators at the site, which permitted our careful consideration of where to invest our time, energy, and resources.

At Jaffa we were fortunate that one period, the end of the Late Bronze Age, featured particularly coherent and well-preserved remains that had been only partially exposed but had not been published and thus were available for intensive analysis. Following a decade of study and excavation, our efforts expose the drawbacks of traditional approaches to Near Eastern archaeological research, as described above, but also the limits of our understanding of the end of the Bronze Age, underscoring the need for a more holistic approach to shed light on the transition between the Late Bronze Age and the early Iron Age in the eastern Mediterranean. In Jaffa, this period was at the center of our study of an Egyptian New Kingdom fortress that stood at the site for about three and a half centuries and was destroyed in the second half of the twelfth century BC. Well-preserved remains and a considerable investment in analyzing these strata have exposed how little we truly know about the decline of

Egyptian rule in Canaan and the ensuing emergence of Iron Age states (Burke et al. 2017b).

Traditional characterizations of the collapse of the Late Bronze Age in this region are well summarized in the recent book *1177 BC: The Year Civilization Collapsed* by Eric Cline. The author describes a perfect storm of calamities: droughts, earthquakes, migrations, and invasions, and the impact of centuries of imperial engagements across the Near East. While the work wonderfully summarizes the question, which has changed little since the mid-twentieth century, it may have the unintended and unfortunate effect of reifying notions of collapse that have been challenged in more recent scholarly literature (McAnany and Yoffee 2010). Furthermore, the book predominantly laments the end of an era of supposed greatness, which takes as its baseline the achievements of the Egyptian and Hittite Empires of the Late Bronze Age, from the perspectives of the empires. The resulting narrative is an effective characterization of the state of the research that, despite a century of intensive study, has departed little from its original roots. It reveals a need for a

local and more nuanced study of this period.

It is in studying this transitional period and the events surrounding it that the lacunae in our understanding become evident: how the agents of its socio-economy changed, and how these changes unfolded. Lacking in most assessments is the scrutiny of long-held assumptions concerning population movements, shifts in settlement patterns, and local chronologies of change. Events such as revolutions, climate change, regime change, the movement of refugees, the work of mercenaries, and migration across the Middle East in our own time have brought the issues of such a transitional period into sharp relief. Each of these subjects, and a number of others, are nearly daily in the news. For the first time since the Second World War, we recognize that these subjects can converge to bring about surprising changes at alarming rates and shocking scales.

What recent events reveal is that absent from most treatments of the Bronze Age–Iron Age transition are stories of resilience, adaptation, and the emergence of new identities and nascent states, which are undeniably the result of the erosion of earlier political and economic regimes and the paradigms of power they embodied. Among the success stories in this vein are

the Philistines of the southern coastal plain of Israel, who have been studied intensively for more than 40 years (Figure 2). Collective, scholarly knowledge of the Philistines has been more recently summarized in a volume by Assaf Yasur-Landau (2010). While there is little to dispute in his presentation of the data, there remains much debate concerning the final analysis, namely the exact date of their arrival, its impetus, and the character of earliest Philistine settlement. Truly lacking from decades of research on the Philistines are rigorous efforts to employ scientific techniques to address these questions, such as radiocarbon dating and organic residue analysis of vessels. For this reason, the arrival of the Philistines from the Aegean remains tentatively based on textual grounds for a terminus post quem of around 1180 (or 1177) BC. There also remains ample room to consider the characterization of the Philistine settlement from the data available. Were they settled Egyptian prisoners of war, invaders, colonists, or a mix of all of these, and must we rely on sparse Egyptian sources for consideration of this? Thus, while Philistines and their identity are among the great success stories of the study of the transition between the Late Bronze Age and the Iron Age, research of them poignantly reveals the overall



Figure 2. Philistines depicted on the walls of the mortuary complex of Pharaoh Ramesses III in Medinet Habu, Egypt.

shortcomings of the investigation of this transitional period.

It was with such considerations in mind that, following up on the results of our excavations in Jaffa, I contemplated how archaeological research can interrogate, in a new way, the transitional years between the end of the Late Bronze Age and the early Iron Age (1200–1000 BC), particularly in the southern Levant, where archaeological research has been conducted for nearly a century and where there is ample documentation for the emergence of early Iron Age states such as Israel. The last real strides in this direction were also achieved nearly 40 years ago, when archaeological surveys of the West Bank added significantly to our understanding of settlement in the highlands (Finkelstein et al. 1997). This provided a major supplement to conclusions that up to that point were largely the result of the excavation of individual sites, such as Megiddo, Tell Beit Mirsim, and Shiloh. Nevertheless, owing to the limits of access to the West Bank, archaeological research on the Iron I, as it is known, effectively plateaued. Few new ideas entered the debate, and thinking on the subject remains largely where it was in 1988 when *The Archaeology of Israelite Settlement* was published by Israel Finkelstein, one of the scholars at the center of the study of the earlier archaeological surveys. Consequently, modern archaeological techniques such as radiocarbon dating, botanical analysis, and organic residue analysis among others have played no role in refining our understanding of this period and its settlements.

Despite a wide array of sources, including excavations, surveys, and historical texts, and the advent of new analytical techniques and methods, our understanding of the early Iron Age remains fundamentally stagnant. One cause is the effect of repeated but largely untested truisms. Among these is the notion that the sedentarization of pastoralists was the phenomenon at the core of emergent Israelite identity during this period. Central to this has been uncritical acceptance of the notion that because Israel has been characterized as a pastoralist society in biblical studies, the appearance of small settlements during the early Iron Age, in the wake of Late Bronze Age collapse, might be attributed to the resettlement of pastoral nomads. However, this model is built on faulty, anachronistic parallels made with the Ottoman period and a retrojection of the modern, largely deforested landscape of the Palestinian highlands into the Iron Age (Rosen 2017:1–6). Over the past two decades in ancient Near Eastern studies has emerged a wider recognition of the classification of so-called agropas-

toral communities, which survive by investing in both agriculture *and* pastoralism, as well as other means of subsistence. Recent work in Jordan has offered examples of similar, contemporaneous subsistence strategies (Porter 2013), and such examples are far more appropriate for understanding rural communities in the highlands of ancient Israel. Furthermore, terraces, once thought to be the result of early Iron Age efforts by Israelites to cultivate land in the highlands, are now identified as late Roman and Byzantine, having nothing to do with frontier, highland settlement by Israelites (Gibson et al. 1991; Gadot et al. 2016). Lastly, there is an increasing realization that certain phenomena previously labeled as nomadic in nature, may reflect refugee resettlement. Consequently, the entire characterization of the motivations, nature, and agents of early Iron Age settlement appears to be flawed.

Much of the problem in arriving at a clearer picture of this transition in the southern Levant is surely the dominant role that the Hebrew Bible has played in shaping expectations, and thus interpretations, for the archaeological record. As historical sources, books such as Judges and 1–2 Samuel have much to offer for our understandings of socioeconomic regimes and political conditions in what we might call post-collapse Canaan. However, the biblical texts make no thorough effort to provide a seamless narrative of the history of Canaan, and they inform the reader only about traditions that precede Judges. The attention of the audience is turned away from Canaan to an exodus from Egypt and a unified conquest of Canaan during the very period when the dramatic events at the end of the Late Bronze Age were unfolding. Scholars are compelled to reconcile, therefore, the data of the archaeological record for Late Bronze Age Canaan and the biblical narratives of early Iron Age Israel with only a limited role for the biblical texts as a historical source, beginning with the book of Judges.

So if one is interested in this transition, why focus a project on the southern Levant? The answer is quite simple: ample data. The southern Levant offers a breadth, range, depth, and access to data that no other region in the eastern Mediterranean can offer. The archaeological record of western Syria (and Lebanon) is notoriously scant for sites and history for the early Iron Age. Antiquities authorities in Egypt are overly restrictive in permitting modern, scientific analysis. Cyprus offers a very small case study and is plagued by the uniqueness of its archaeological assemblage in the Late Bronze Age and limited data for the early Iron Age. Turkey, while a vast landscape of sites, is plagued by a limited understanding of its coastal



Figure 3. David Ilan and Lyndelle Webster examine plans in Area B at Tel Dan, Israel, in preparation for the 2018 season.

communities and large, unexplored tracts of territory between Troy and the Hittite capital of Hattusha. The southern Levant—Israel, Jordan, and the Palestinian territories—offers a rich assemblage of sites across a diverse range of geographic environs, from coastal plains to highlands and inland valleys. The region was also connected by its coast to Mediterranean communities and by overland routes to Mesopotamia, Syria, Arabia, and Egypt. Lastly, as both historical and archaeological sources reveal, Canaan during the Late Bronze Age, while predominantly under Egyptian control, was no stranger to foreign influences, whether of the Hittites, Hurrians, or Sea Peoples, and thus reveals that Canaanite society was a social petri dish for the ancient Near East, representing a range of interactions and potential socioeconomic outcomes. Thus, given the current state of Near Eastern studies, one can hardly expect a better nexus than the southern Levant for exploring the varied responses of local communities to change at the end of the Bronze Age.

Added to these benefits is the potential of the southern Levant for the high-resolution scientific analysis of artifacts that is necessary to the success of this research program. It is in this endeavor that the Turning Points research program, which I established with David Ilan of Hebrew University College in Jeru-

salem, seeks to create an opportunity for a renewal of research into the Late Bronze Age–Iron Age transition by answering questions of chronology, agency, and causality behind the reorganization of communities. In contrast to the mound-based archaeological research strategies discussed earlier, this new research project seeks to facilitate the coordinated collection of data across a number of sites for a range of different investigations. Foremost among these is the systematic radiocarbon dating of sites within this period. While later Iron Age sites have been the focus of recent efforts to assess chronology, early Iron Age sites almost entirely lack radiocarbon dates and are primarily dated by relative means, as they are sandwiched between periods with more recent radiocarbon assays. Neither ceramic- nor artifact-based chronologies can offer, however, more than relative temporal control, and their improvements are predicated on the resolution afforded by radiocarbon dating and, in particular, by Bayesian analysis of sample sequences from a single site (Bronk Ramsey 2009).

Archaeological sequences from ongoing and renewed excavations offer the opportunity to undertake a sampling strategy, specifically targeting the research interests outlined above, at multiple sites across the southern Levant as part of a broad research

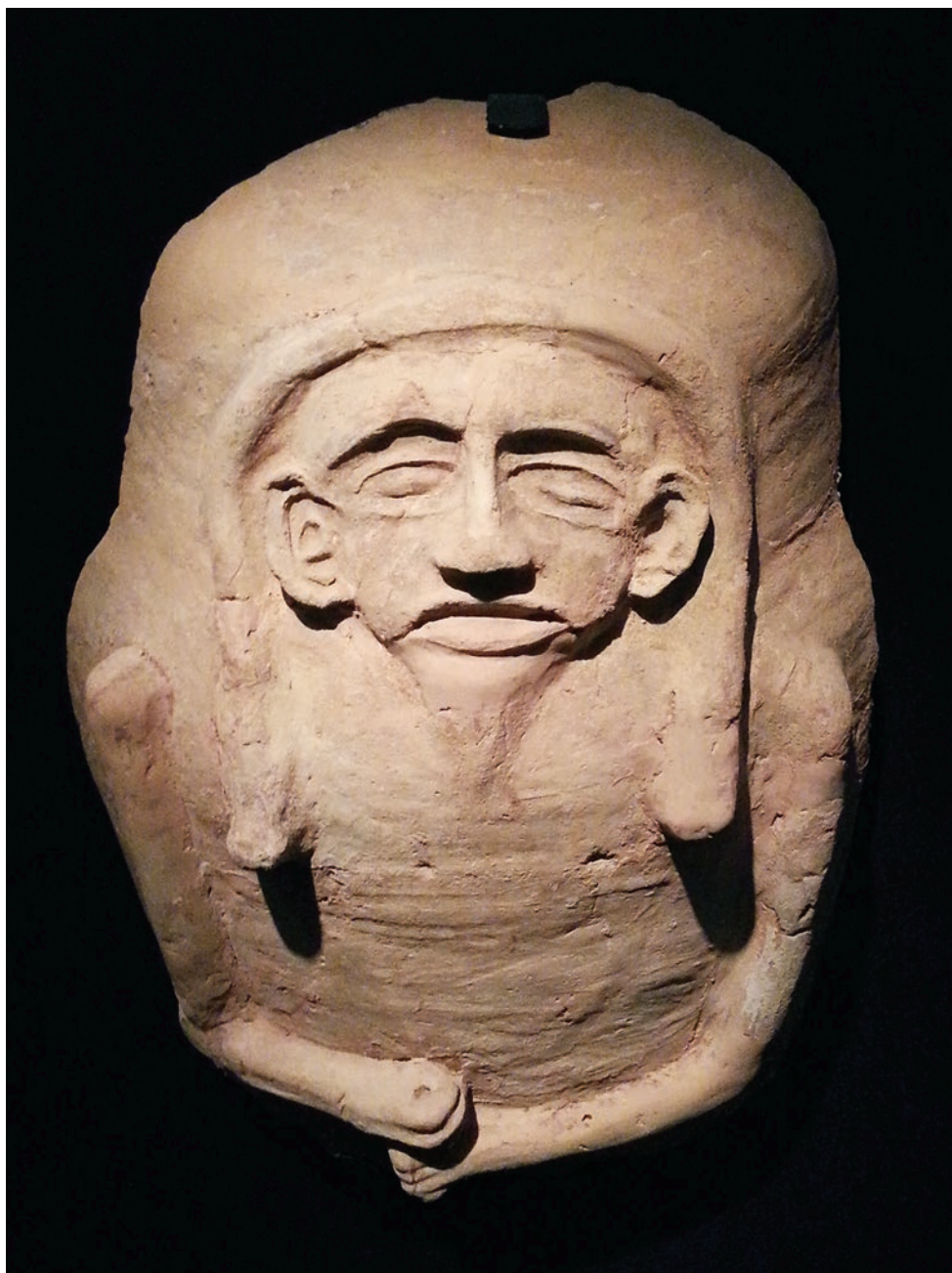


Figure 4. An Egyptian anthropoid sarcophagus lid from Israel.

partnership. In 2018 I will join the excavations of Tel Dan in northern Israel, together with several graduate students from UCLA. The site has been excavated by David Ilan and Yifat Thareani since 2005, and previously hosted excavations by Avraham Biran from 1966 to 1999. In Area B at Dan (Figure 3), excavation of an Iron I to Late Bronze Age sequence has been the subject of recent and forthcoming publications (Ben-Dov 2011; Ilan forthcoming). These, however, address only the excavations conducted until 1999, when the types of analysis now possible were not available. Our efforts afford an opportunity, therefore, to extend high-resolution analysis to early Iron Age contexts and to begin to address the dating and further characterization of such communities. Consequently, sieving

for short-lived botanical and micro-fauna samples, and collection of pottery for residue and petrographic analysis, are among the immediate priorities of this collaboration, which will amplify recent collection efforts by Jonathan Greer, the faunal specialist (and Associate Director) for the project. The objective is understanding consumption practices among the diverse communities at the site, including early Israelites and possibly Egyptians and Sea Peoples.

During the course of the upcoming season, archaeological survey in the Upper Galilee in Israel will identify a site to be explored beginning in 2019 as part of a UCLA–Hebrew Union College collaboration. Settlement in this region provides a proxy for highland settlement in the West Bank and study of the chronology of this settlement pattern, as well as the various subsistence and lifestyle strategies that these communities pursued during the transition between the Late Bronze and Iron ages. With chronological data provided by radiocarbon samples and through artifact assemblages, we will seek to clarify the relationship between highland and lowland settlement patterns, which has been central to the study of

the early Iron Age but especially for the study of early Israel. Ceramic production is of particular importance given the limited resources of highland communities and may provide one avenue for understanding how sites related to one another.

Beyond Tel Dan, several ongoing projects have also agreed to collaborate during their excavation of related Late Bronze and early Iron Age contexts. These collaborations will include several broader studies of the period. In early 2019 the project will host a conference at UCLA addressing agency in the early Iron Age. Compared to the ethnicity-centered approaches dominating traditional discussions of identity in this period, an agency-based approach offers a particularly fruitful avenue for investigating

continuity and change among various practitioners or agents, such as warriors, scribes, farmers, and priests. Future projects may also permit collaboration across modern political boundaries where topics touch upon related subjects. For example, issues surrounding the departure of Egyptians invite a number of questions concerning the sustained influences, if not presence, of Egyptians in Canaan thereafter. So further study of anthropoid sarcophagi, an Egyptian coffin type from Canaan at the end of the Late Bronze Age (Figure 4), may provide insights into identity, the function of these coffins within local funerary practices, and the local adaptation, if not adoption, of foreign practices during this transitional period.

One of the primary objectives of Turning Points is to shift the focus of archaeological research from a site- or region-specific spatial enterprise—an approach that has dominated archaeological research in the Near East for more than a century—toward question-oriented, multidisciplinary, collaborative research on a larger regional scale. Site-based research remains the dominant paradigm of archaeological research, founded on the premise that individual locations can provide adequate answers to complex questions. If anything is clear after a century of intensive archaeological research in the Near East, sites functioned as part of local landscapes and also within wider regions. They were extensively affected by wider geopolitical, geographical, and climatological trends, and they must therefore be more thoroughly integrated into broader research programs. To date, the project most comparable to what we envision was the long-lived Synchronisation of Civilisations in the Eastern Mediterranean (SCIEM 2000), directed by Manfred Bietak. Nonetheless, like most projects it was centered on findings from a single site, the excavations at Tell el-Dab'a (ancient Avaris) in Egypt. We seek to recenter inquiry on major research questions away from questions generated by somewhat serendipitous findings of long-term excavations at individual sites. Exploration of the types of research questions Turning Points seeks to address will certainly be conducted within the framework provided by extensive excavations, former, ongoing, and new. However, we hope that a broader level of purposeful collaboration between projects can refine and maximize the research potential of excavations of early Iron Age contexts. The investment must be in questions we wish to investigate, not narratives that unduly elevate the status of an individual site to the potential detriment of a greater understanding of the broader questions that these archaeological contexts can address.

REFERENCES CITED

- Ben-Dov, Rachel (editor). 2011. *Dan III, Avraham Biran Excavations 1966–1999: The Late Bronze Age*. Annual of the Nelson Glueck School of Biblical Archaeology 11. Jerusalem: Nelson Glueck School of Biblical Archaeology, Hebrew Union College-Jewish Institute of Religion.
- Bronk Ramsey, Christopher. 2009. Bayesian Analysis of Radiocarbon Dates. *Radiocarbon* 51(1):337–360.
- Burke, Aaron A., Katherine S. Burke, and Martin Peilstöcker (editors). 2017a. *The History and Archaeology of Jaffa 2*. The Jaffa Cultural Heritage Project 2. Monumenta Archaeologica 41. Los Angeles: Cotsen Institute of Archaeology Press.
- Burke, Aaron A., Martin Peilstöcker, Amy Karoll, George A. Pierce, Krister Kowalski, Nadia Ben-Marzouk, Jacob Damm, Andrew Danielson, Heidi Dodgen Fessler, Brett Kaufman, Krystal V. L. Pierce, Felix Höflmayer, Brian N. Damiata, and Michael W. Dee. 2017b. Excavations of the New Kingdom Egyptian Fortress in Jaffa, 2011–2014: Traces of Resistance to Egyptian Rule in Canaan. *American Journal of Archaeology* 121(1):85–133.
- Finkelstein, Israel, Zvi Lederman, and Shlomo Bunimovitz (editors). 1997. *Highlands of Many Cultures: The Southern Samaria Survey, The Sites*. 2 vols. Monograph Series 14. Tel Aviv: Institute of Archaeology of Tel Aviv University.
- Gadot, Yuval, Uri Davidovich, Gideon Avni, Yoav Avni, Michal Piasetzky, Gala Faershtein, Dan Golan, and Naomi Porat. 2016. The Formation of a Mediterranean Terraced Landscape: Mount Eitan, Judean Highlands, Israel. *Journal of Archaeological Science: Reports* 6:397–417.
- Gibson, Shimon, Bridget Ibbs, and Amos Kloner. 1991. The Sataf Project of Landscape Archaeology in the Judean Hills: A Preliminary Report on Four Seasons of Survey and Excavations (1987–1989). *Levant* 23:29–54.
- Ilan, David (editor). Forthcoming. *Dan IV, Avraham Biran Excavations 1966–1999: The Iron Age I Settlement*. Annual of the Nelson Glueck School of Biblical Archaeology 12. Jerusalem: Nelson Glueck School of Biblical Archaeology, Hebrew Union College-Jewish Institute of Religion.
- McAnany, Patricia A., and Norman Yoffee. 2010. *Questioning Collapse: Human Resilience, Ecological Vulnerability, and the Aftermath of Empire*. Cambridge: Cambridge University Press.
- Peilstöcker, Martin, and Aaron A. Burke (editors). 2011. *The History and Archaeology of Jaffa 1*. The Jaffa Cultural Heritage Project 1. Monumenta Archaeologica 26. Los Angeles: Cotsen Institute of Archaeology Press.
- Peilstöcker, Martin, Jürgen Schefzyk, and Aaron A. Burke (editors). 2013. *Jaffa: Tor zum Heiligen Land*. Mainz: Nünnerich-Asmus.
- Porter, Benjamin W. 2013. *Complex Communities: The Archaeology of Early Iron Age West-Central Jordan*. Tucson: University of Arizona Press.
- Rosen, Steven A. 2017. *Revolutions in the Desert: The Rise of Mobile Pastoralism in the Southern Levant*. New York: Routledge.
- Yasur-Landau, Assaf. 2010. *The Philistines and Aegean Migration at the End of the Late Bronze Age*. Cambridge: Cambridge University Press.



Sustainable Preservation Initiative: Local and Global Collaboration

Paul Burtenshaw and Larry Coben

THE SUSTAINABLE PRESERVATION INITIATIVE (SPI) aims to build futures and save pasts. We develop community businesses so that people can have sustainable incomes from their local archaeological sites. This not only helps build the futures of some of the most vulnerable communities in the world but also puts local archaeology at the center of their lives and provides a powerful reason for them to value and preserve their sites. We create economic opportunities by giving communities, and most often the women within them, skills and tools to be self-reliant and to leverage their historic sites responsibly. We provide training in essential business, organizational, and product skills; access to experts in product design and marketing; assistance in bringing products to market; and collaboration with local archaeologists, who impart knowledge and inspiration about local history. The businesses we develop are fully owned and run by local people, ensuring that they are sustainable over the long term.

A good example of our work is the site of Pachacamac in Peru. Pachacamac is a World Heritage Site just south of Lima, the capital of Peru, and one of the most important ancient oracle sites in the Andes, covering nearly 500 ha (1,250 acres) of temples and

pyramids and 1,300 years of occupation. The modern-day communities around the site live in numerous uncontrolled settlements, which suffer from a lack of infrastructure and economic opportunities. Archaeologists have frequently had to battle against invasions and encroachment of houses onto the site. Working with the Pachacamac Site Museum, SPI brought together 23 women from the local community to develop an artisan business that creates and sells products inspired by the history of the site to tourists. Since it began selling in early 2015, the business (named SISAN, meaning “to flower” in the local Quechua language) has gone from strength to strength, with sales increasing by 66 percent year on year and with new skills and products regularly being added (Figure 1). These amazing women, many of whom never earned their own money before, now completely run their own thriving business, which pays them above the Peruvian minimum wage. Not only is the business providing the women with new economic security, but they have become leaders in the local community, have gained confidence, and are tackling local machismo traditions. The museum no longer has to call the police to stop local encroachment, as the community now values the archaeology. Building



Figure 1. Larry Coben poses with the women of SISAN at the site of Pachacamac, Peru.

on this success and in collaboration with the National Geographic Society, SPI recently launched another community business at the site, a cycle tour program supporting local youth employment and engagement (Figures 2 and 3). More about this project, including a recent video by National Geographic, can be found at www.sustainablepreservation.org.

We have been carrying out projects in Peru for more than seven years and now have 10 projects in that country. We have also worked in Guatemala for the last three years, have collaborated with various partners in the Middle East, and are developing projects around the world (including new initiatives in Bulgaria and Tanzania). Over the years we have gained experience, including learning from mistakes and failures, about how to achieve successes such as in Pachacamac. One of these lessons is that such projects are truly multidisciplinary. At the heart of any successful project is a variety of people with different areas of expertise working together and being committed to making a positive impact on people's lives.

The basis of any project is local knowledge and motivation. We need to have a real understanding of a community, its capacities, its needs, and its issues. No community project can succeed by having an inflexible

Without local buy-in our work is impossible

template; any strategy must be tailored to the talents and limitations of the community and must be respectful of local cultures and dynamics. Often such knowledge comes from someone who has lived or worked in that community for years. This might be an outsider, such as an archaeologist, or it might be someone from the community itself, such as a local leader. Such people are instrumental in making a project happen, being champions on the ground, and pushing people forward when things do not come easily. Of course, if a local community is not enthusiastic about being part of and leading a project, no project will be sustainable. Local insights and motivation are not something an international organization can operate without. Without local buy-in, knowledge, and motivation, our work is simply impossible.

Even with these local conditions, we need a range of knowledge to make projects successful. Our projects rely on making products that are reflective



Figure 2. Bicycles at Pachacamac provided by the National Geographic Society and the Sustainable Preservation Initiative.

Business is providing the women with new economic security

of a place and its heritage and are also appealing to the available market. We need those who know local archaeology to provide us with the story of the site and to feed the process of product creation with local art and iconography. We need designers who can collaborate and communicate with local artisans, work with local crafts, take fresh inspiration from local cultural heritage, and then design products that are unique and will be profitable in the marketplace. We need lawyers and accountants who can work with communities that often have not run businesses before or have low literacy, and who can help participants register their businesses and pay the correct taxes. We need people who can effectively communicate and work with locals to carry out workshops, guide discussions, and build knowledge and capacities in a

way and at a pace appropriate to them. All these team members need to bring their expert knowledge with them and also translate that knowledge for others, listen to each other, and ensure that their solutions are right for the unique needs of each project.

Setting up a business with great products is only the first step. Businesses cannot be sustainable if community members do not have the skills to be independent and to run their own companies. Businesses create value for sites only if they provide decent incomes over the long term. For that to happen, those involved must have the skills to solve problems and make decisions about growth, new products, and marketing. For all its projects, SPI teaches a full range of business skills and works with local people to build their understanding of and responsibility in the business slowly but surely. They learn practical skills, such as accounting, product development, market research, and how to reach new audiences, as well as learning to solve internal disputes and to communicate effectively with each other.

Such business skills seem a long way from what is traditionally taught in archaeology and conservation. Yet they are essential to models of inclusive, commu-

nity-led, sustainable preservation of sites. Without them, any promises that local people can benefit economically from their cultural heritage, whether through museums, tourism, souvenirs, or anything else, are very likely to fall short and appear unsustainable. While cultural heritage and archaeological sites present a variety of opportunities to benefit communities in a wide variety of ways, local people must have the skills and knowledge to use these assets responsibly. Otherwise they are waiting for others to produce the benefits for them. These skills may seem divorced from archaeology and to belong instead to disciplines that may not seem to have the same philosophical

They have become leaders in the community

underpinnings as archaeology, such as economics. However, such knowledge and skills actually stem from something archaeologists and heritage managers are often good at: understanding people, their lives, and their motivations.

While very few archaeologists are experts in community business development, a basic understanding of how archaeological sites might provide sustainable benefits to people living in and around the places we work should be part of any archaeologist's tool kit. Unfortunately, too many well-meaning community projects and site museums do not fulfill their potential. Archaeologists find it difficult to get information and create enterprises that are financially sound and self-governing over the long run. SPI is tackling these issues by developing a range of free materials to help potential partners and anyone else who is interested in creating responsible and sustainable opportunities for communities. These materials—called SPI Business School—walk a project manager through setting up a local business based on cultural heritage, including what information is needed, what to look out for, and what kinds of people and markets need to be in place. Accompanying the guide are 21 workshops for teaching basic business and management skills to build local capacity. If you are interested in such materials, get in touch through our website www.sustainablepreservation.org.

Such materials and new partners are integral to SPI growing around the globe. However, we would



Figure 3. Tourists on a bicycle tour of Pachacamac.

not exist and cannot grow without our network of collaborations closer to home, which has provided help and guidance since we began. Many at UCLA and the Cotsen Institute, including Charles (Chip) Stanish, Charlie Steinmetz, Harris Bass, Willeke Wendrich, and the Friends of Archaeology, have supported us. We are grateful for the institutional support we enjoy. This spirit of teamwork and a variety of specialists working together are vital for our projects and our organization as a whole.



The Dragon-Stones of Armenia

S. Peter Cowe

IN MAY 2017 A MEMORANDUM of understanding was signed by UCLA and the Institute of Archaeology and Ethnography of the Armenian National Academy of Sciences. Within the framework of this cooperation, the Research Program in Armenian Archaeology and Ethnography of the Cotsen Institute is supporting a project to advance the role of archaeology in the Armenian Republic and its impact on a broader societal setting. In addition to pursuing scholarly research, the goal of the project is to promote a more informed appreciation of prehistoric monuments in Armenia by the public at large and thereby to elicit the assistance of the general public in protecting such sites. For the longer term, the project seeks to assess the potential to generate cultural tourism and ecotourism in Armenia and to mobilize support for preservation of the structures under consideration.

The project focuses on carved stelae termed *višapak'ar* (dragon-stones), which depict animal forms with clear symbolic significance indigenous only to certain regions of the Armenian Plateau. In addition to the Armenian Republic, the area includes Ĵavaxeti/Trialeti in southern Georgia, Naxiĵevan in Azerbaijan, and Erzurum/Kars and Van in Turkey. Currently around 150 of these objects are known; 90 of them are in Armenia. They have been dated to the Middle Bronze Age, around the first half of the second millennium BCE. All the sites where they have been located are some 2,000–3,000 m (6,550–9,850 feet) above sea level, making them among the oldest examples worldwide of human craftsmanship at such a high altitude. In Armenia, the two main concentrations cluster on Mount Aragac—its highest peak rising to a height of 4,090 m (3,576 feet)—and in the Gelama mountain

range. The sites share a number of characteristics. Of volcanic origin, they are the source of numerous springs, some of which become tributaries of larger rivers. They sport rich alpine pasturage in the zone above 2,800 m (9,200 feet); some areas are so moist as to be marshy. The affinity of the latter location with dragon lore is illustrated by toponyms such as Višapasar (Dragon Mountain), a peak in the south of the Gelama range, and Višapalič (Dragon Lake) on its western slope.

Dragon-stones depict animals with symbolic significance

Although scholarly interest in the stelae was not sparked until the late nineteenth century, they were obviously known to early historical societies in the region, who reused the materials for other purposes. A *višap* uncovered during an excavation near Gaṛni in 1963 features a cuneiform inscription about the Urartean king Argishti I, who reigned from 786 to 764 BCE. The inscription details his campaigns in the region (Arak'elyan and Harut'yunyan 1966). Meanwhile, an Armenian inscription on a stone in Karmrašen, dated 990 CE, relates its difficult descent and relocation near a church, its discovery being attributed to divine providence. Stones at Alavnatun, Marmrašen, and Pok'r Gilanlar were similarly transformed into a medieval type of Armenian religious monument known as a *xač'k'ar* (cross-stone), evi-

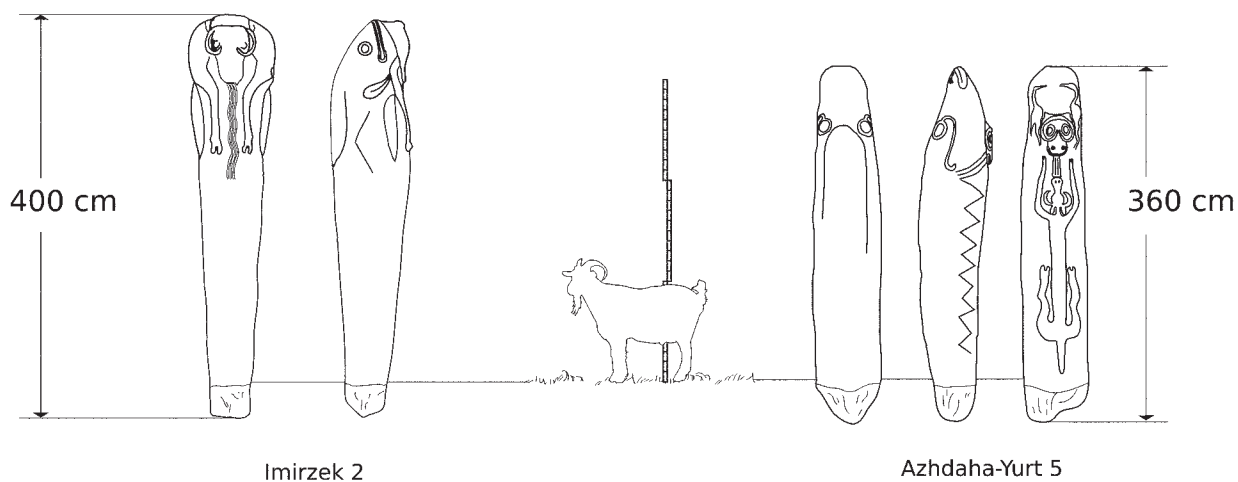
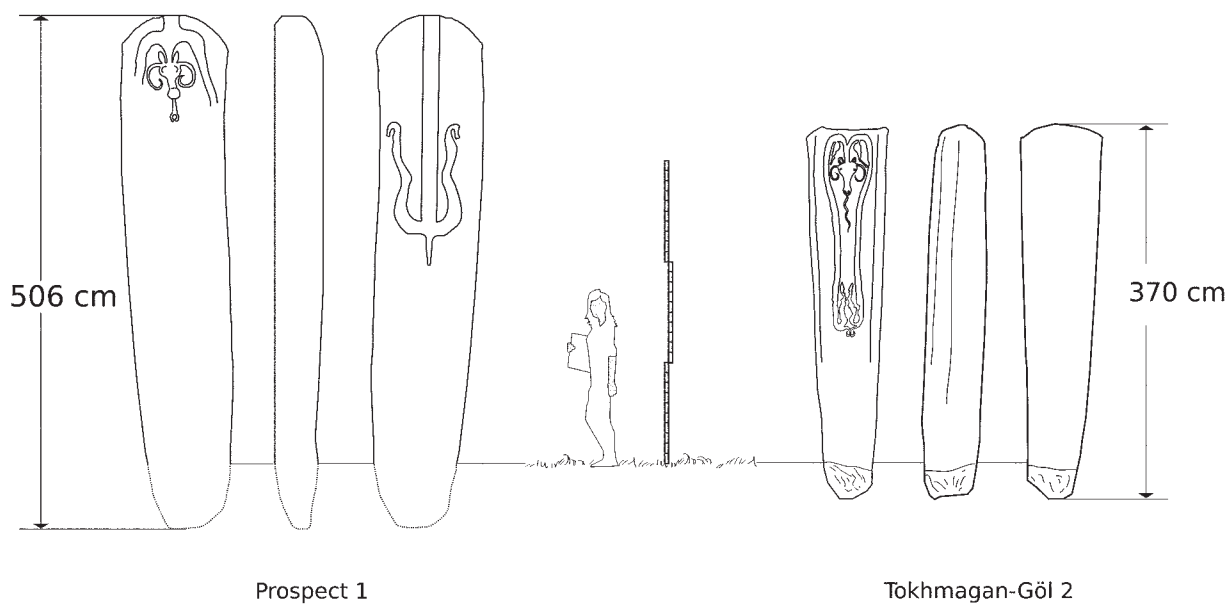
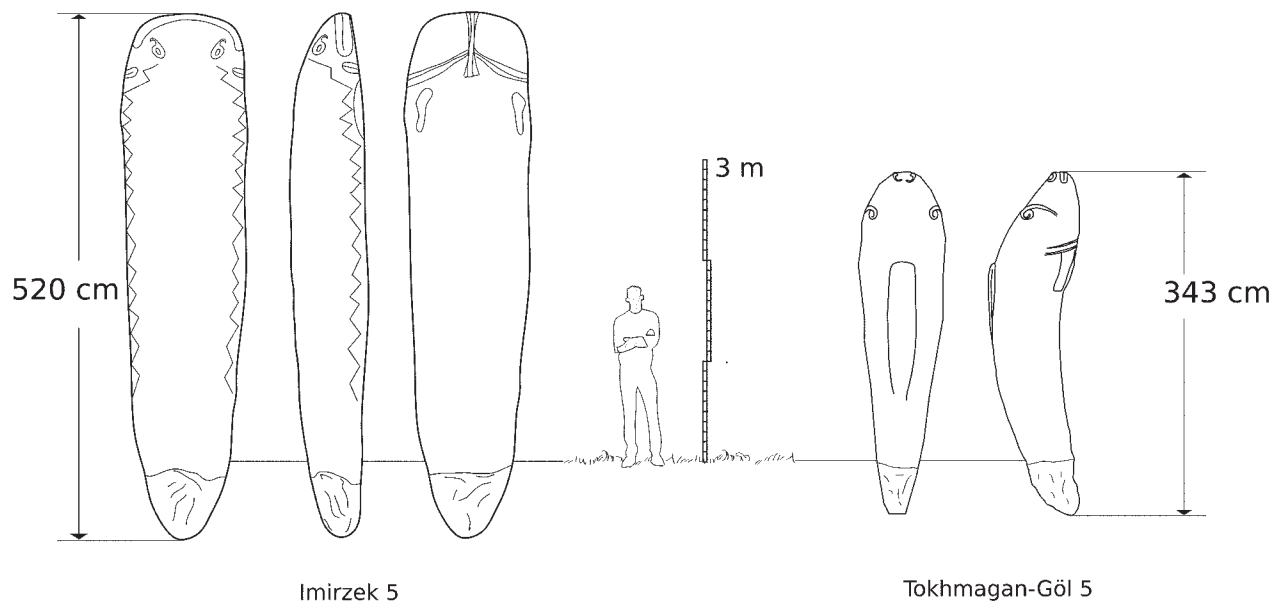


Figure 1. Typology of the Armenian dragon-stones (*višapak'ars*). (Drawing by A. Gilbert)

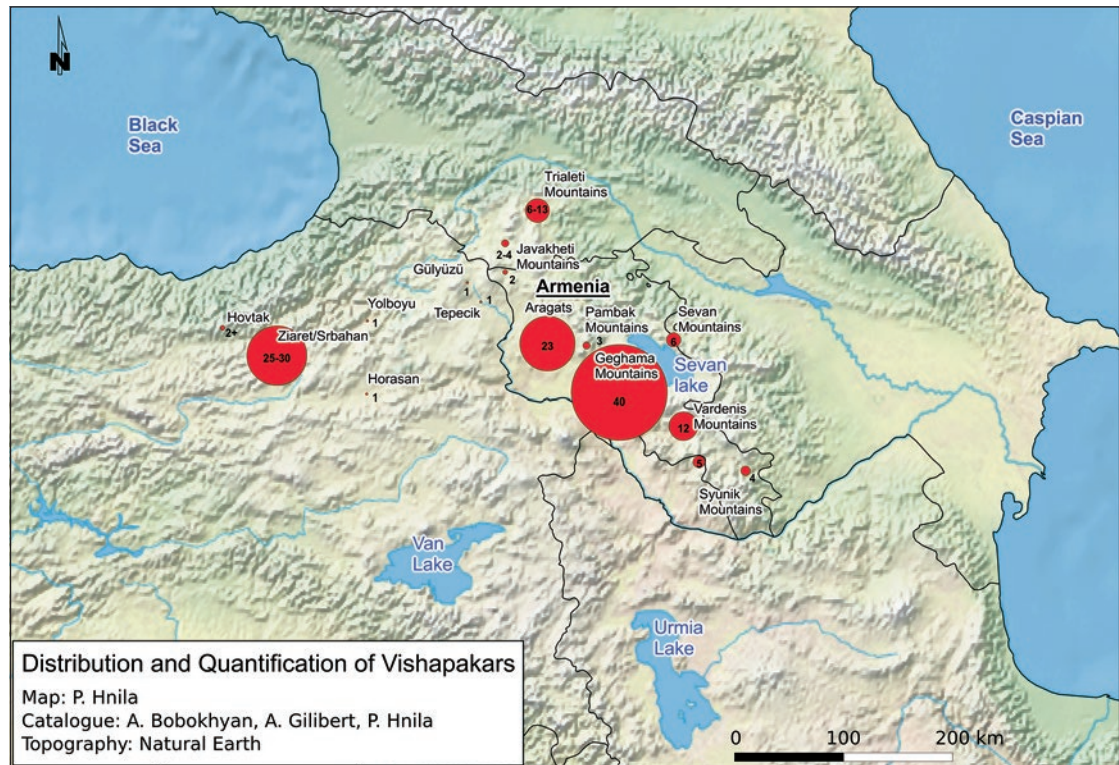


Figure 2. Map of the Armenian Plateau, showing the distribution and quantification of dragon-stones (*višapak'ars*). (Map created by P. Hnila)

denced since the ninth century (Petrosyan 2008). In parallel, older legends concerning dragons underwent metamorphosis after the Christianization of Armenia, being correlated with narratives of warrior saints, such as Saint George disposing of snakes and freeing virgins held captive. Likewise, tales of serpents mounting the sky and stirring up storm clouds to blot out the sun were recalibrated in terms of the perpetual struggle between angels and demons (Harutyunyan 1985:458).

He impregnated a rock in the Cold Spring

The stelae are imposing, cigar-shaped stones of 150 to 550 cm (59–217 in) in height, drawn from local materials, mainly basalt. Iconographic analysis permits a threefold classification. In the first category are stones that resemble a fish (*piscis*). In the second are those that resemble a bull (*vellus*), with the carving depicting the stone as draped in a bovid hide, including the extremities of head and feet. Some examples of this type also delineate streams of water emanating from the mouth of the animal and water birds located beneath its head. In the third category is a hybrid fish–bull image manifesting features of both other types. While many of the stones are now

situated in a prone position as a result of collapse or manual relocation, the fact that they were carved and polished on all sides indicates that they were intended to be viewed standing upright.

The current project is directed by Arsen Bobokhyan, a senior researcher at the Institute of Archaeology and Ethnography. It builds on a recent collaboration between the institute and the Free University of Berlin in which Bobokhyan was joined by Alessandra Gilibert and Pavol Hnila in launching a comprehensive survey aimed at producing a full taxonomy of the sites. They performed a more detailed study of the iconography, developed a more accurate classification system, and investigated for the first time the interface between the monuments and their immediate surroundings. This resulted in the documentation of a further 16 stones; the inchoative study of their patterns of distribution, dating, and function; and the stratigraphic excavation of selected sites (Gilibert et al. 2012).

These new initiatives mark a significant advance in scope and methodology compared to previous studies. These commenced with an overview by Atrpet (Sargis Mubayaĵean) written in 1880 but published several decades later (Atrpet 1929). This was followed by excavations at Garni in 1909 by Nikolai Marr and Iakov Smirnov and their monograph of 1931. Two years later came K'alant'ar's discussion in the context of his broader investigation of Mount Aragac. Characteristic of those earlier approaches was

an attempt to interpret the symbolism of the *višaps* directly within the domain of Armenian mythological traditions without considering their attestation at a much later period, without considering the multiplicity of contexts in which dragons function in that lore, and without a clear understanding of chronological and potentially demographic issues associated with the enterprise. Here the etymology of the term *višap*, which designates both the stelae and their mythological counterpart, is of pivotal importance because it has been identified as an Iranian loan word, and most such borrowings derive from the Parthian period (third century BCE–third century CE). Piotrovskiy (1939) linked the figure with narratives of dragons guarding springs of water, while Abelyan (1941, 1966) argued for affinities with the goddess Astlik, patroness of fertility and love. Kapanc'yan (1952) instead proposed an alignment with the cult of Ara Gelec'ik (Ara the Handsome), the Armenian reflex of the dying and rising god—such as Adonis, Attis, and Tammuz—embodying the renewal of the agricultural cycle.

The recent collaborative study has approached the *višaps* from a narrower archaeological perspective, investigating the interrelation between the monuments and their immediate surroundings. Findings indicate that the monuments utilize unworked stones of medium size, which were set in the vicinity of artificial barrows. These were usually arranged in clusters in meadows with an abundant water supply, especially in dips in the landscape formed by volcanic craters. Initial results open up new avenues for exploring the cultic and symbolic importance of the ancient objects. At this point it is surmised that the barrows associated with the *višaps* were employed not only for burial but for a wider range of ceremonies, including sacrificial rituals in which the stones played a part (Gilibert et al. 2012).

Simultaneously, the linguist and comparative mythologist Armen Petrosyan, senior researcher at the Institute of Archaeology and Ethnography in Yerevan, has proposed a new interpretative framework for the *višap* phenomenon that is much more attuned to both the iconography and the dating of the stones (Petrosyan 2006; Petrosyan and Boboxyan 2015). Drawing attention to the diversity of myths current during the second millennium BCE, when the structures were erected, Petrosyan cites the Hurrian tale of the divinity Kumarbi, now best preserved in a Hittite version, relating his plan to overthrow his son Teshub, the weather god. To achieve his purpose, he impregnated a rock in the “Cold Spring,” producing a

pillar of volcanic rock called Ullikummi. He then hid the latter on the shoulder of Upelluri, an Atlas figure, in the underworld, but the pillar grew at a prodigious rate until it reached the heavens. In the sequel, the gods devised various stratagems to defeat it, without immediate success. Although the conclusion of the myth is not preserved, it is presumed that Teshub finally succeeded in overcoming the giant. While as the weather god, Teshub is associated with the bull, the description of his adversary in the myth cannot simply be reconciled with the second, ichthyomorphic class of standing stone.

A pillar of volcanic rock called Ullikummi

In contrast, contextualizing the material data within the Proto-Indo-European “basic myth” as reconstructed by Ivanov and Toporov seems to provide a more satisfactory match (Watkins 1995). The latter narrates a similar combat involving the thunder god. This time, however, his adversary is a serpent, usually described as many headed and associated with water, their conflict being interpreted as a cosmic battle between the forces of chaos and order (West 2007:255–259). Ultimately, the god emerges triumphant, and his success ensures the abundance of cosmic waters (rain, rivers, and so on). The earliest attested form of the myth in Hittite texts portrays the encounter between the storm deity Tarḫunna and the serpent Illuyanka, whose name has been interpreted as a composite of two diverse terms for “snake.” This motif is illustrated in the parallel Luwian tradition on a relief at Arslantepe, representing the weather god Tarḫunz struggling with a water serpent. Parallel accounts are recorded later in a series of Indo-European languages.

Relating the details of the myth to the physical structures, the fish clearly appears to represent the serpent, while the bull features widely as a symbol of the thunder god in many early Anatolian and Near Eastern cultures, including the Akkadian, Hurrian, and Hittite. Moreover, the wavy lines detectable beneath the head of the bull suggest rainwater issuing from the duel. Also significant is the etymological affiliation that Petrosyan draws between the serpent and the Gelama mountain range, one of the areas most fecund in dragon-stones. One of the names of the mythical serpent derives from the Indo-European root

**wel-*, represented by the Armenian reflex *gel-*, which he associates with the the Gelama mountains and *Gelark'unik'* east of Lake Sevan. He argues that the stones were probably designated by this root before its displacement by the Iranian loan word *višap*. From this perspective, the traditional role of the storm god Vahagn as *višapakał* (plucker of dragons) would thus be associated with this later phase. This raises important questions regarding the dating of Indo-European settlement on the Armenian Plateau.

Building on those recent developments, the current project seeks to repair and restore stelae, raise public awareness about their significance, and take

Fieldwork uncovered unsupervised digging at barrows

initial steps to secure their long-term preservation. Above, I discussed cases of relocation and reuse of monuments in earlier centuries; most *višaps*, however, were moved during the Soviet period (1922–1991). Eighteen stones were transferred to the capital and other locations from their original sites in Aragac, Gelama, and Vardenis. In many cases they were incorrectly installed in their new environments, and some suffered damage in the process. Five are in particular need of intervention because they were placed upside down and secured in concrete with no appreciation for their function and significance. One stone was utilized as a grave marker in a modern cemetery in the village of Daštadem. Another was set up by a villager in the central park of Didmašen to commemorate a friend killed in the war with Azerbaijan. Two more were put on display at the Nor Amberd Physics Station in Byurakan, while a fifth was set horizontally, with its underside encased in concrete, in Poplavok Park in the center of Yerevan, obscuring important carvings on its belly. Moreover, five stones at Karmir Sar were broken and reused by pastoralists, while others, at Toxmalañ Gyol, were damaged during the process of relocation and resetting. With the authorization of the Ministry of Culture of the Republic of Armenia and under supervision of the Institute of Archaeology and Ethnography, these stelae will be removed from their concrete foundations, cleaned, and reinstalled nearby with more appropriate supports. A number of others will require repair. These include those at Lčašen, P'ok'r Gilanlar, Verin Bazmaberd, and Lusakn.

As the above documentation of faulty placement and inaccurate display reveals, there is a parallel need to complement physical restoration with an initiative to educate the general public through accurate information about these unique monuments. This is particularly desirable granted the lack of objective data with a solid academic foundation in popular sources such as guidebooks and Internet sites. One aspect of this approach will be the provision of plaques adjacent to the monuments, providing accurate information about their structure and function, supplemented by drawings and photographs. Where known, details of the original location of the stele will be included. An aspect of the recent collaboration with the Free University of Berlin consisted of recovering original photographs of the stelae in situ and visiting those locations with the original transporters to pinpoint the sites as accurately as possible.

Due to an increase in vandalism and looting as a result of growing ease of access, the raising of public awareness about the stelae has long-term implications for the preservation of monuments still in their original settings. Fieldwork carried out in 2012 uncovered seven instances of unsupervised digging at barrows. Five involved heavy machinery that vitiated the archaeological context, while the other two, in the Gelama range, were less deleterious because of the use of picks and shovels. To avert a further rise in such vandalism, an outreach project will target local populations, particularly Armenian and Yezidi pastoralists, to enlist their participation in surveillance efforts. For the longer future, however, it is desirable to institute continuous monitoring and to have the area recognized as a protective zone. One means of achieving this, which the project will explore, is an assessment of the sites as possible centers of managed tourism.

Karmir Sar, on the south slope of Mount Aragac, extends over an area of 40 ha at a mean altitude of 2,850 m (9,350 feet) above sea level. The focus of excavations by the Armenian–German team in 2013–2016, the site marks the highest concentration of stelae. It encompasses a cluster of eight *višaps* in the center of a meadow, together with a stone out of context with carving on its upper part and two basalt stones largely buried, probably to be identified as stelae. Additionally, the stele Karmir Sar 1 is the only known *višap* with incised petroglyphs of a subsequent period (Khechoyan 2007), indicating the complex forms of a unique corpus of rock art in a “stratified” and datable archaeological context. The site is located in a beautiful mountain landscape near a summer pasture in the vicinity of the medieval fortress of Amberd.



Figure 3. View of Karmir Sar. (Photograph by A. Bobokhyan)

The latter is already a regular tourist destination serviced by a modern road, which could be extended to provide access to the complex with minimal impact on the surrounding environment. This way the project will assist in restoring one of the earliest cultural monuments in Armenia in addition to expanding its public profile and raising awareness of potential risks to its security. Meanwhile, the possible development of tourism will further underscore the international dimension of its cultural significance, already established by its probable identification as the embodiment of a central aspect of Indo-European mythology.

REFERENCES CITED

- Abelyan, M. 1941. *Višapner" koč'vac kot'olnerē ibrev Astlik-Derketo dic'uhu arjanner* [The Monuments Called "Dragons" as Statues to the Deity Astlik-Derketo]. Yerevan: Armfani Hratarakč'ut'yun.
- . 1966. Haykakan ēposakan banahyusut'yun [Armenian Epic Folklore]. In *Erker* [Works], Vol. 1, pp. 85–86. Yerevan: Haykakan SSH GA Hratarakč'ut'yun.
- Aṛak'elyan, B. N., and N. V. Harut'yunyan. 1966. Naxodka uratskoy nadpisi v Garni [Urartian Inscription in Garni]. *Patmabanasirakan Handes* [Historico-Philological Journal] 2:290–297.
- Atrpet. 1929. *Čoroxi avazanē* [The Çoruh Basin]. Vienna: Vienneyi Mxit'arean Tparan.
- Gilibert, A., A. Bobokhyan, and P. Hnila. 2012. Dragon Stones in Context: The Discovery of High-Altitude Burial Grounds with Sculpted Stelae in the Armenian Mountains. *Mitteilungen der Deutschen Orient-Gesellschaft* 114:93–132.
- Harutyunyan, S. 1981. Višapamartē Sasna crerum [Combat with a Dragon in Sasna Crer]. *Lraber* 11:65–85.
- . 1985. Višap. In *Haykakan Sovetakan Hanragitaran* [Armenian Soviet Encyclopedia], Vol. 11, pp. 457–458. Yerevan: Haykakan SSH GA Hratarakč'ut'yun.
- K'alant'ar, A. 1933. *Aragacē patmut'yan meġ* [Aragac in History]. Yerevan: Haykakan SSH GA Hratarakč'ut'yun.
- Kapanc'yan, G. 1952. *O kamennykh stelakh na gorakh Armenii* [On Stone Stelae in the Mountains of Armenia]. Yerevan: Haykakan SSH GA Hratarakč'ut'yun.
- Khechayan, A. 2007. "The Rock Art of the Mount Aragats System." Presentation at the conference Rock Art in the Frame of the Cultural Heritage of Humankind, Darfo Boario Terme (Italy), May 18–24, 2007. Electronic document, www.academia.edu/2111647/The_Rock_Art_of_the_Mt._Aragats_System.edu, accessed August 10, 2017.
- Marr, N. J., and Iakov I. Smirnov. 1931. *Les Vichaps*. Leningrad: Imprimerie Iv. Fedorov.
- Mnac'akanyan, A. 1952. Višap" k'arakotoġneri ev višapamarti dic'abanutyan masin [On the Mythology of the Višap Stone Stelae and Combat with a Dragon]. *Telekagir* 5:73–100.
- Petrosyan, A. 2006. The Vishap Stones. Electronic document, www.academia.edu/10218132/The_Vishap_Stones._Project_Discovery_Newsletter_2006, accessed August 10, 2017.
- Petrosyan, A., and A. Bobokhyan (editors). 2015. *Višap k'arakot'olnerē* [Višap Stone Stelae]. Yerevan: Gitut'yun Hratarakč'ut'yun.
- Petrosyan, H. 2008. *Xač'k'ar: cagumē, gorcaruyt'ē, patkeragrut'yunē, imastabanut'yunē* [Cross-stone: Origin, Function, Iconography, Semantics]. Yerevan: P'rint'info.
- Piotrovskiy, B. B. 1939. *Vishapy: Kamennye statui v gorakh Armenii* [The Višaps: Stone Statues in the Mountains of Armenia]. Leningrad: Izd.-vo Akademii nauk SSSR.
- Šahinyan, A. 1976. Vayoc' Jori višapakot'olnerē. *Patmabanasirakan Handes* [Historico-Philological Journal] 1:286–289.
- Watkins, C. 1995. *How to Kill a Dragon: Aspects of Indo-European Poetics*. Oxford: Oxford University Press.
- West, M. L. 2007. *Indo-European Poetry and Myth*. Oxford: Oxford University Press.



Growing Together in the Ancient Agriculture and Paleoethnobotany Laboratory

Alan Farahani

ANY ARCHAEOLOGICAL FACT is the product of a great deal of work by many individuals, whether by excavating a site or in informal discussions at the end of a day. Each and every person has a role to play in the process of creating archaeological knowledge, and while no two roles are identical, each is essential. The investigation of ancient agriculture and the analysis of archaeological plant remains depend on different hands to craft the images and graphs that adorn our presentations and articles.

Each year the Ancient Agriculture and Paleoethnobotany Laboratory at the Cotsen Institute of Archaeology hosts a number of UCLA undergraduate students seeking first-time, hands-on experience in the analysis of archaeological materials, or those who have some experience and are looking to undertake a more involved research project. In the 2016–2017 academic year, there were many such students, several of whom who graduated at the end of the year. For many, this constituted their first experience working in a collaborative archaeology laboratory setting, which, as one might expect, presents a variety of challenges and opportunities. This year Paulo Suarez, Sergio Roman, Madeleine Harris, Lauren Lien, Michele Gorrie, and Maya Gutierrez volunteered their time and energy to the analysis of archaeological material. Lauren,

Michele, and Maya also wrote research papers on material they analyzed in the laboratory.

Maya measured carbonized rice grains from the archaeological site of Kani Shaie in Iraqi Kurdistan (inhabited between 3600 BCE and 1300 CE) to determine their geographic origin (South or East Asia), while Lauren and Michele worked on Byzantine-period material (around 600 CE) collected during excavations at the archaeological site of Dhiban in Jordan. Michele analyzed the remains of small animals such as fish and reptiles to reveal the presence of far-flung trade networks in the Late Antique southern Levant. Lauren investigated ceramic remains to identify functional use, composition, and local circulation of pottery in this area. Madeline and Paulo identified smaller remains from Dhiban, such as shell, glass, and pottery. Sergio analyzed archaeobotanical material from Kani Shaie. Maya, Madeline, and Sergio provided insights into what collaboration and connection in the laboratory meant to them individually in the course of this research.

One of the challenges, noted by Sergio (UCLA Anthropology), was “coordinating meeting times that worked well with others.” He said the major benefit to laboratory work was the ability “to feed off of other people’s work flow, ethic, and energy, which leads to



UCLA undergraduate students discuss their projects in the Ancient Agriculture and Paleoethnobotany Laboratory.

better output, production, and results. Working in a group kept me focused and on task, improved my communication skills with other students, and taught me how to cooperate in a laboratory setting.” The presence of others was frequently noted as a major benefit. Madeline (UCLA History) enjoyed “working in a group setting because I was able to both ask questions when I could not identify an artifact as well as share my exciting finds with those around me.” She said, “The social aspect was definitely one of the most positive influences. . . . The work can be tedious at times, so having peers around you to communicate with and work with makes the environment that much better.” Maya (UCLA Anthropology and Near Eastern Languages and Cultures) noted, “If you had a question about anything, there was guaranteed to be someone in [the Cotsen Institute] who had an answer. Whenever we had trouble identifying something, whether it be bone or pottery, or when we wanted more information about a certain object, we went to a faculty member who specialized in that material, and they were always more than happy to help us and educate us.”

The encouragement of faculty in the Cotsen Institute and the unique scholarly environment were salient. As Maya explains, “I was surprised by how interested the staff and faculty were in the work we

were conducting in the lab and how eager they were to learn about what we were doing, as well as willing to offer help if we ever had any questions.” Madeline had a similar experience: “I got to meet people from various labs, work with undergraduate students like myself, and learn about the work of graduate students. . . . Being able to hear about the interests and studies of this mix of people was something that I loved about this environment.” Maya concluded, “Working in the lab was an amazing experience in large part because of the amount of knowledge I gained from working side by side with people who shared their specialized knowledge with me, and that is something I will continue to take with me as I pursue a career in archaeology.” Although the students, perhaps tactfully, did not focus on the challenges of working in a collaborative research setting, the skills learned in the laboratory and strategies for overseeing complex projects with multiple individuals will hopefully guide them in navigating their professional goals for many years to come.



Summer in Turin, Italy

*Jordan Galczynski, Caroline Arbuckle MacLeod,
Danielle Candelora, Vera Rondano, Robyn Price,
and Jeffrey Newman*

IN THE SUMMER OF 2017, six Egyptology graduate students conducted research in Museo Egizio (Turin, Italy), which houses the largest collection of pharaonic materials outside of Egypt and is a premier research institution.

While at the museum, Caroline Arbuckle MacLeod carried out research on wooden coffins, both for her dissertation and for a monograph to be published by the museum. She studied the construction of coffins and was able to examine 30 coffins during her two-month research visit. Studying coffin production involves analysis of wood processing, joining methods, tool marks, and the materials used to create and decorate coffins. Thanks to the enthusiastic support of museum staff, Carrie had access to most of the museum's coffins and was permitted to take wood samples from some of them. Her data will contribute to the understanding of ancient technologies, organization of labor, timber usage in the ancient Mediterranean, and Egyptian funerary beliefs.

Danielle Candelora visited the museum for two weeks to photograph and analyze the scarab collection for her dissertation research. Her research focuses on the Second Intermediate period, the Hyksos, and the negotiation of identity.

Vera Rondano investigated economic growth and social mobility by studying patterns of standardization and the modular production of Egyptian burial assemblages of the first millennium BC. Vera conducted portable X-ray fluorescence (pXRF) analysis on faience to establish its composition. A pXRF instrument excites an object with X-rays, causing the material to emit an array of fluorescent X-rays. The resulting spectrum

depends on the elemental composition of the object and thus provides insights into the composition of the material. Vera was at the same time a teaching assistant at an undergraduate field school in museology and Egyptian material culture, along with Rachel Moy.

Jeffrey Newman focused on testing the composition of copper and copper alloy tools from two closed contexts: the Fifth Dynasty Tomb of the Unknown and the Eighteenth Dynasty Tomb of Kha and Merit (Theban Tomb 8). Using pXRF, he obtained elemental compositions for each group, getting a snapshot of the flourishing metal industry during these periods.

Students performed a variety of tasks

In addition to his work on metal objects, Jeff examined a number of predynastic siltstone palettes in the collection of the museum. He subjected these to both pXRF analysis and reflectance transformation imaging to gain insight into their role within the emerging Egyptian state.

For her work on sensory experience in ancient Egypt, Robyn Price conducted research on incense burners. Robyn wants to compile a typology of incense burners. She hopes that it, in combination with organic residue analysis, will reveal a pattern of practice and relationships between materials and containers.

Jordan Galczynski studied linen garments from



Figure 1. Carrie Arbuckle MacLeod records the features of a wooden coffin lid in Museo Egizio.

the Tomb of Kha and Merit. Linen is an understudied material within Egyptology, even though it was incredibly important to the ancient Egyptians in both profane and sacred contexts. Jordan performed macroscopic and microscopic analysis of loincloths and tunics from the tomb. Using a DinoLite digital microscope, she analyzed weave type, spin and ply of the fiber, and overall garment construction techniques. This type of analysis will contribute to an understanding of the role and function of linen in ancient Egyptian society. She plans to continue this research in the coming year.

Jordan, Robyn, and Jeffrey also participated in a UCLA/Politecnico di Torino-led field school named Digital Nubia. The one-week intensive, interdisciplinary program aimed to reconstruct part of the context of the UNESCO International Campaign to Save the Monuments of Nubia of the 1960s. Students from both UCLA and the Politecnico performed a variety of tasks using photogrammetry, geographical information systems, computer-aided design, and virtual reality, along with more traditional research methods. The program was a success, resulting in a virtual reality model of the Temple of Ellisijia within a section of the Nubian landscape. The plan is to create similar reconstructions of other monuments in the near future.

All UCLA graduate students and faculty would like to thank the curators and staff of Museo Egizio for their support and guidance throughout the summer.



Figure 2. Jeff Newman analyzes the metal blade of an ancient adze with a portable X-ray fluorescence instrument.



Masis Blur Mobility Project

*Anneke Janzen and
Kristine Martirosyan-Olshansky*

THE MASIS BLUR MOBILITY PROJECT explores the early management of domestic cattle and caprines (sheep and goats) in the southern Caucasus. The Neolithic site of Masis Blur, situated in southwestern Armenia, is one of the earliest Neolithic sites in the southern Caucasus with evidence for stock-keeping and extensive cereal cultivation.

The southern Caucasus and Ararat Province, where the remains of the Neolithic settlement Masis Blur are located, have traditionally been among the most important centers of sheepherding for both their primary and secondary products (Manasian 2011). Today, many Armenian herders, for whom animal husbandry is the dominant economic endeavor practice transhumance, meaning they move their livestock to higher elevations in the summer to access seasonally available pastures. Those for whom animal husbandry is subsidiary to agriculture use the land at the foot-hills near their settlements and farmlands for pasture (Mkrtumyan 1979; Manasian 2011).

How the first herders in the southern Caucasus managed their herd animals in the context of mixed farming is not well understood, although sex- and age-specific mortality profiles can indicate culling patterns, and an earlier zooarchaeological analysis indicates that caprines were raised for both meat and milk

How the first herders in the southern Caucasus managed their animals is not well understood

(Bălăşescu 2015). Faunal evidence also demonstrates a shift in stockkeeping practices from the earliest to later occupational horizons as cattle become more common.

Analysis of the carbon, oxygen, and strontium stable isotope composition of sequentially sampled livestock tooth enamel provides a detailed view of animal management strategies, including seasonal mobility and diet, as well as birth seasonality. Similar analysis of bone collagen can provide information on herding strategies for cattle for which dental remains are lacking.

Isotopic analysis of the remains of domestic livestock at Masis Blur can thus shed light on how early farming and herding communities in the southern Caucasus scheduled seasonal activities and how crucial mobility was in maintaining herds. Investigations into the sources of obsidian finds indicate that Neolithic populations of the Ararat Plain made trips to nearby volcanic highlands to the north, northeast, and northwest. The presence of obsidian at Masis Blur from diverse and distant sources (up to 160 km, 100



Obsidian sources of Mount Sevkar (Black Stone) in Syunik Province, Armenia, and summer camps of Yezidi herders.

mi away), when a high-quality obsidian source was much closer (35–40 km, 20–25 mi away), suggests that the acquisition of obsidian may have been coincident with seasonal movements of the herds. Insight into herd management strategies might help us better understand obsidian procurement patterns present at Masis Blur. Finally, stable isotope analysis of the few human remains from the site will lend another view into Neolithic life in the southern Caucasus. Together, these lines of evidence inform on how early agricultural communities in the southern Caucasus managed their livestock and thus provide valuable insight into early Neolithic economies in the region.

REFERENCES CITED

- Bălăşescu, Adrian. 2015. Zooarchaeological Study for Mammals from Masis Blur (Armenia). Unpublished report.
- Manasian, V. 2011. Animal Husbandry in Armenia. *Problems of Economic Transition* 54(1):68–83.
- Mkrtumyan, Y. I. 1979. Changing Life Patterns in the Caucasus: The Contributions of Agriculture and Cattle Breeding. In *Anthropology and Social Change in Rural Areas*, edited by B. Berdichevsky, pp. 223–234. The Hague: Mouton Publishers.



Engaging, Collaborating, and Investing for the Future: The Ifugao Indigenous Peoples Education Center and Community Heritage Galleries

Marlon Martin and Stephen Acabado

THE IFUGAO ARCHAEOLOGICAL PROJECT, launched in 2012, has actively solicited the participation of the local community because of the research direction the project has taken, which has the potential for an antagonistic relationship between the archaeologists and descendant communities. We recognized the importance of the involvement of community members in implementing successful heritage conservation programs. In addition, a better appreciation of archaeological work can only be achieved when all stakeholders are invested in the research process. Involving the community in investigations of the Ifugao rice terraces is valuable because the terraces are considered a living cultural landscape. The ethnic identity of the Ifugao is fundamentally tied to the terraces and the production and consumption of rice. Historically, the Ifugao are considered non-Hispanized because the Spanish colonial government failed to establish a permanent presence in the region. In this sense, their identity is intimately tied to their indigenous heritage and history. New findings that have the potential to change generally accepted historical

The terraces
are considered a
living cultural
landscape

facts might be a source of conflict between scholars and the communities with which they work. Moreover, performing research is disruptive to the daily lives of the Ifugao, especially to the agricultural activities of farmers. But research also has the potential to make significant contributions to conservation programs in the region. Community archaeology in Ifugao, thus, provides archaeologists, other scholars, and the local community a platform for communication.

A focal point in the archaeology of the Ifugao rice terraces is the debate on the antiquity of these magnificent agricultural structures. Early anthropologists who studied the Ifugao surmised that the terraces were between 2,000 and 3,000 years old (Barton 1919; Beyer 1955), a proposition that became received wisdom in textbooks and national histories (UNESCO n.d.; Jocano 2001). It was thus a challenge when



Figure 1. Marlon Martin explains the finds of the Ifugao Archaeological Project during the launch of the Ifugao Community Heritage Galleries which house the Indigenous Peoples Education Center.

archaeological data indicated a much later date for the construction of the rice terraces (Acabado 2009:811; 2017). The long history model is replete with colonial perspectives—terms such as “uncolonized,” “isolated,” and “representative of original Filipinos”—that depict the Ifugao as unchanging and without history. Perspectives such as these continue to reprise colonial views of upland Filipinos as backward. The view of Cordilleran peoples as primeval Filipino ancestors has no place in contemporary scholarship.

FROM COLLABORATION TO INDIGENOUS ARCHAEOLOGY

The participation of the community in the Ifugao Archaeological Project addresses these issues by disseminating information and explaining that the recent findings do not diminish the value of the Ifugao rice terraces. This participation has stimulated interest among younger Ifugaos in their history and the disciplines of anthropology and archaeology. Community archaeology in Ifugao is a continuing process that involves proactive negotiations between stakeholders. Community archaeology entails a partnership between local people and trained archaeologists conducting investigations. The participation of the local community aims to humanize the material past and bring an end to the exclusive control that colonial archaeology

has had over its interpretation. In the Ifugao Archaeological Project, the participation of local stakeholders intends to serve as a catalyst for renewed community interest in the nearly forgotten past and to encourage a more active role in the conservation of their heritage.

To involve local people in archaeological investigations, participation in excavations was strongly encouraged. Site visits by local students and interested members of the community provided opportunities for onsite lessons in local history and provoked a deeper understanding of cultural heritage. Public education on the processes of archaeology and participatory analysis of discoveries served to involve the local community as active partners and not merely as objects of research. Free access to the site considerably helped dispel the reputation of archaeological digs as masquerading treasure quests. Community involvement in archaeological processes can generate proactive measures, especially from the local government in Ifugao. It contends with ambiguous and ill-informed guidelines on cultural resources management, and these are further complicated by the opposing forces of the need for heritage conservation, the demands of mass tourism, and the World Heritage status of the Ifugao rice terraces. Participatory archaeology in the rice terraces should provide an advantage to local decision makers in formulating innovative and sustainable responses to

the cultural evolution and changing social context of this remarkable landscape.

The involvement of descendant communities in research is a continuous process. Although their voices are heard in reports and exhibits, there is also recognition that the interpretive authority of archaeologists plays a strong role in the interpretation of new findings. In our case, we avoided conflict by maintaining consultations and conversations with local communities. We asked our collaborators to help disseminate the controversial findings of the project to a wider audience (Acabado et al. 2017). More importantly, the involvement of the community in the project contributed to the development of the Ifugao Community Heritage Galleries (Figure 1), which now serve as the Ifugao Indigenous Peoples Education Center. The galleries display material culture and house a library with publications about the Ifugao. The galleries and center offer the community—particularly teachers—a way to develop local history curricula and modules for heritage classes.

THE IFUGAO INDIGENOUS PEOPLES EDUCATION CENTER

The Ifugao Indigenous Peoples Education Center (Figure 2) was created out of the sheer need to include Ifugao heritage literacy in Ifugao schools in the mainstream educational system. In 2006 the Save the Ifugao Terraces Movement embarked on an ambitious project to integrate indigenous knowledge systems and practices into the formal education system of Ifugao. Labeled Nurturing Indigenous Knowledge Experts among the Younger Generations of Ifugao, the project aimed to train teachers and develop modules on indigenous knowledge systems and practices for use in different grade levels. It should be noted that at this point that the curricula cannot be modified to include all the different subjects pertaining to Ifugao culture, indigenous knowledge systems, and practices. The difficulty lies in the policies of the Department of Education, which prescribe that the national curriculum must be strictly adhered to. Only bits and pieces of local culture can therefore be included in the curricula of different schools. In history lessons, for instance, Ifugao children are taught about the history of the Philippines without mention of the role their ancestors played during the formative years of the Philippine nation. Ifugao children grow up with the notion of being part of a Spanish colony for 300 years, when in fact their province is one of the few that successfully resisted Spanish colonial subjugation. The rice culture and montane terraces for which the Ifugao are widely

known became mere symbols of the tourism industry. Ifugao youth do not learn about the terraces being a military defense as well as a political stand against a colonial superpower, or how the terraces played a role in the social stratification of their ancestors. The terraces are reduced to mere objects of aesthetics, while discussion of their utilitarian significance, which could elevate traditional knowledge into the realm of the sciences, is sidelined.

The center is an important venue to educate Ifugao youth about the importance of their culture and to strengthen their weakening comprehension of tradi-

Children grow up with the notion of being part of a Spanish colony

tional knowledge systems, practices, and community values. While the national education system is now shifting toward recognition of the history, traditional knowledge, and institutions of indigenous peoples, the question remains how to make this part of the formal education system. This requires much more than writing new textbooks and manuals. To educate young people about their culture requires empowering community elders and other keepers of indigenous culture to actively participate in the documentation and passing down of knowledge using tools of contemporary pedagogy. The center aspires to bring together students and keepers of indigenous culture, taking into consideration generational differences in education and knowledge transfer. It also serves as a repository of material culture artifacts that have been relegated to disuse by modern technology.

COLLABORATION WITH A WIDER AUDIENCE

The ambitious task of incorporating culture education into the rigid school curriculum without impairing national learning standards is an enormous challenge. History textbooks do not necessarily reflect local experience, but both local history and national history need to be taught. The center needs to collaborate with the local education department, the local government, and community conservation organizations to ensure comprehensive instruction and not make the mistakes of the past, when education focused on one area of history and neglected the other. Community elders and keepers of indigenous culture need to work hand

in hand with formally trained educators to develop a curriculum that encompasses both traditional knowledge and the principles of contemporary education. Anthropologists also need to be engaged to meet the aims of the center: bridging generations and putting together a system that is inclusive of old and new. We started this work with community ethnography workshops facilitated by anthropologists, which provided basic training in ethnographic documentation to local Ifugao communities.

CONCLUSION

The Ifugao case has shown that community archaeology, though not perfect and not an answer to all problems, promises to minimize conflict between heritage stakeholders. The practice of community archaeology also intensifies conversations between archaeologists and descendant communities. None of this is to suggest that community archaeology solves all the complicated problems and compromises of archaeology and of interactions with communities with their own local, regional, and national entities. The success of any heritage management program rests on the engagement of many segments of the community.

The Ifugao Indigenous Peoples Education Center and Community Heritage Galleries are based in the Gabaldon Building of the Kiangan Central School in Kiangan, Ifugao, about 350 km (215 miles) north of the capital, Manila.

REFERENCES CITED

- Acabado, S. 2009. A Bayesian Approach to Dating Agricultural Terraces: A Case from the Philippines. *Antiquity* 83: 801-814.
- . 2017. The Archaeology of Pericolonialism: Responses of the “Unconquered” to Spanish Conquest and Colonialism in Ifugao, Philippines. *International Journal of Historical Archaeology* 21: 1-26.
- Acabado, S., M. Martin, and F. Datar. 2017. Ifugao Archaeology: Collaborative and Indigenous Archaeology in the Northern Philippines. *Advances in Archaeological Practice* 5(1):1-11.
- Barton, R. F. 1919. Ifugao Law. *University of California Publications in American Archaeology and Ethnology* 15:1-186.
- Beyer, H. O. 1955. The Origins and History of the Philippine Rice Terraces. In *Proceedings of the Eighth Pacific Science Congress, 1955*. Quezon City: National Research Council of the Philippines.
- Jocano, F. L. 2001. *Filipino Prehistory: Rediscovering Precolonial Heritage*. Quezon City: Punlad Research House.
- UNESCO. n.d. Rice Terraces of the Philippine Cordilleras. Electronic document, <http://whc.unesco.org/en/list/722>, accessed September 25, 2017.



Figure 2. Community stakeholders, including provincial governor Pedro Mayam-o (center), explore the Ifugao textile exhibit at the Cultural Material wing of the Ifugao Community Heritage Galleries.



Guidelines for Facilitating Work between American Indian Communities and Museums

Ellen Pearlstein

TO MANY OF US, IT SEEMS OBVIOUS that information about American Indian collections held by nonnative museums, and decisions made about the representation and conservation of these collections, benefits from close collaboration with the originating communities. In fact, museums run the risk of wrongly educating the public about these communities through incomplete or inaccurate assessments, leading to erroneous physical and virtual representations, label copy, and conservation (Freed 1981; Enote 2015). Categorizations that omit indigenous knowledge and intangible associations are found to be woefully incomplete. There has been progress in the inclusion of indigenous knowledge and perspectives into museums. Michael Ames (1992), former director of the Museum of Anthropology in British Columbia, noted momentum beginning in the 1980s, when indigenous communities were heard as wanting “control over their own history and its interpretation, whether the vehicles of expression be museum exhibits, classroom discourses or scholarly papers, textbooks and mono-

graphs.” Yet indigenous community members, reflecting on unsettling past relationships, are sometimes reluctant to work with museums. Further, the benefits of museum access may not be clear to community members. On the other hand, conservators and other collection stewards have often felt constrained by not knowing how to proceed in collaborations, not knowing how to reach out and to whom, and not understanding the cultural and governmental protocols held by native nations.

For the past four years, I have had the privilege of working on the development of two sets of guidelines for collaborative work: “Communities + Museums” and “Museums + Communities,” both developed in close partnership with native and nonnative museum professionals, cultural leaders, and artists. “Communities + Museums” appears in beta format at sarweb.org/guidelinesforcollaboration/. Aimed at communities, these guidelines outline the benefits of working with museum collections, including study and revitalization of cultural methods, and they demystify the complex pathways to accessing museum storage. The “Museums + Communities” guidelines explain to museum stewards the types of awareness and behaviors that support true collaboration. These guidelines are soon to appear online as well.



Figure 1. Native and non-Native museum professionals, academics, cultural leaders, and artists meeting to review the guidelines at the School for Advanced Research in Santa Fe (NM).

They are a project of the Indian Arts Research Center at the School for Advanced Research in Santa Fe, supported by the Anne Ray Charitable Trust with additional support from the National Museum of the American Indian. The core working group includes Brian Vallo (Indian Arts Research Center), Cynthia Chavez Lamar (National Museum of the American Indian), Jim Enote (A:shiwi A:wam Museum and Heritage Center), and Landis Smith. Conservation collaborators include Kelly McHugh and Marian Kamnitz (National Museum of the American Indian) and Nancy Odegaard and Martina Dawley (Arizona State Museum, University of Arizona).

REFERENCES CITED

- Ames, Michael. 1992. *Cannibal Tours and Glass Houses: The Anthropology of Museums*. Vancouver: University of British Columbia Press.
- Enote, James. 2015. Museum Collaboration Manifesto, A:shiwi A:wam Museum and Heritage Center. Electronic document, ashiwi-museum.org/collaborations/museum-collaboration-manifesto/ (accessed October 9, 2017).
- Freed, Stanley. 1981. Research Pitfalls as a Result of Restoration of Museum Specimens. *Annals of the New York Academy of Sciences* 376:229–245.

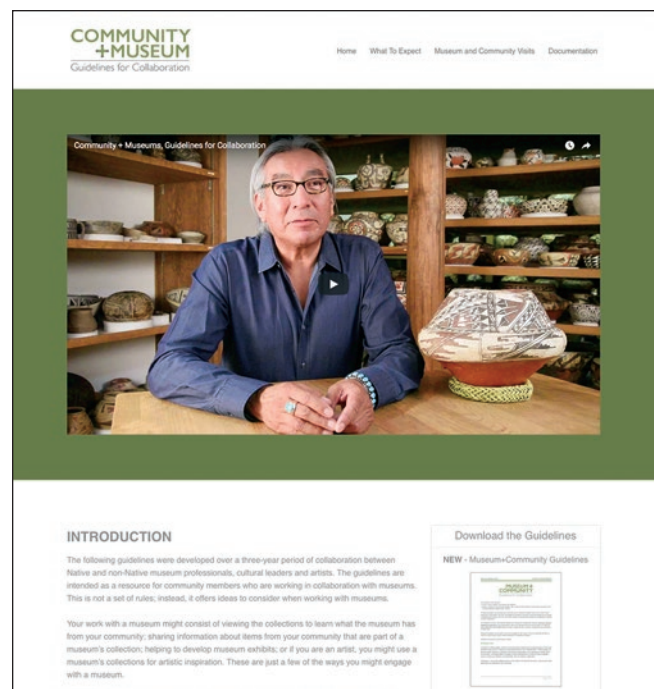


Figure 2. Screenshot of sarweb.org/guidelinesforcollaboration/ on which both guidelines appear.



Museology and Egyptian Material Culture

Vera Rondano

IN THE SUMMER OF 2017, a group of 15 undergraduate students from the United States, Mexico, India, and Sweden traveled to Turin, Italy, to attend a field school in museology. The field school stemmed from a partnership between the Cotsen Institute and Museo Egizio and was facilitated by UCLA Extension and the Institute for Field Research. The field school was directed by Hans Barnard, assisted by graduate students Rachel Moy and me. Students also received instruction from the staff of Museo Egizio and external experts in Egyptology, conservation, and restoration.

The field school aimed to provide students with a broad insight into issues facing a modern museum, including aspects related to the preservation, handling, and presentation of ancient artifacts, as well as administration, fund-raising, and outreach to a broad nonspecialist audience. Because of the dynamic and diverse approaches toward the ancient artifacts—which went far beyond basic courses in Egyptian history and art—students will be able to apply what they learned during the field school to a range of other areas. Several of the teaching sessions took place inside the galleries and storerooms of the museum, sometimes while the museum was closed to the public.

Students explored ways in which analysis of ancient materials informs curatorial choices. They were given the opportunity of handling and studying exemplars of two groups of objects: sherds of ceramic vessels and fragments of textiles. The students

Students explored ways in which analysis informs choices

engaged in the reconstruction of ancient ceramic vessels and produced drawings, photographs, and digital models of these artifacts (Figure 1). All data were made available to the museum in an online database, to which students of future field schools will also contribute. During the sessions on textile analysis, students worked closely with Matilde Borla and Valentina Turina, two experts in ancient Egyptian textiles. They presented a number of interesting artifacts dating from the early dynastic period to the Coptic period (Figure 2). Cinzia Oliva, one of the leading experts in textile conservation, who is currently working on animal mummies in the museum, showed textiles from different countries and different times that are currently being treated in her workshop. Matteo Salusso, a professional weaver, helped students construct a series of looms during a workshop on experimental archaeology. After this workshop everybody realized that weaving a simple linen cloth is a difficult and lengthy process. It took us almost five hours to finish a 10 × 10-cm (4 × 4 inches) square.

We also witnessed one of the most challenging activities undertaken by museum staff: the complicated process of moving a large stone statue of Pharaoh Ramses II back into the Hall of Kings after it returned from an exhibition abroad. This took place



Figure 1. Field school students Giulia Marinos and Philip Erikson study ancient Egyptian pottery in Museo Egizio.

under the supervision of Marco Rossani, collection manager, and a representative of the Italian Ministry of Antiquities. The undergraduate students of the field school also interacted with UCLA graduate students who were working in the museum on research projects. Caroline Arbuckle gave a tour of the coffins in the museum and an overview of her doctoral work on Egyptian wooden coffins; Jordan Galczynski explained what she had found during inspection of textiles from the Tomb of Kha and Merit; Rachel Moy presented her research on ceramic vessels from Ethiopia; Jeffrey Newman illustrated his work on Egyptian metals with the aid of pXRF analysis; Robyn Price talked about her work in sensory archaeology with a focus on smell; and I introduced my work on the standardization of production in Egyptian burial assemblages of the first millennium BC.

As part of the curriculum, students visited several other museums and historical landmarks in and near Turin, including the Museum of Cinema inside the iconic Mole Antonelliana; the Automobile Museum; the Museum of Oriental Art; the Museum of the Holy Shroud; the Archaeological Museum; the Basilica of Superga, with the tombs of the Savoy family and the site of the 1949 Gran Torino air disaster; the reconstructed medieval village in Parco del Valentino; and the ruins of the ancient Roman city of Industria and its Temple of Isis. We also visited the conservation laboratories in Venaria Reale, the former hunting palace of the Savoy family. All these activities were



Figure 2. Field school students Soumitra Thorat and Elizabeth Faux study ancient Egyptian textiles in Museo Egizio.

meant to encourage students to investigate different approaches to issues concerning the conservation, presentation, and appreciation of material objects. For their final assignment, students wrote and presented a critical review of five galleries in Museo Egizio, with suggestions for changes and improvement. These presentations and reports have been taken by the museum director and his staff as point of departure for redesigning sections of the permanent exhibit to make them more accessible and entertaining for a young audience.



A Resource Survey in the Qinling Mountains of China

Tao Shi

THE BRONZE AGE STATES OF early China were founded on the basis of a constant flow of key resources, such as copper, turquoise, jade, and cinnabar, from the peripheries into the Luoyang Basin (Liu Li and Chen Xingcan 2003). The study of key natural resources and their transportation networks should therefore be an important facet of research into state formation during the Chinese Bronze Age. However, archaeologists have paid most attention to the study of copper at the expense of other resources. With the amazing findings in the capitals of the Bronze Age, such as tombs and a turquoise mosaic of a serpent (CASS 2014), it is now accepted that the study of other resources cannot only enrich our understanding of the economy of the Bronze Age but potentially also enable the addressing of social and cultural issues.

Recognizing such importance, I conducted a survey in the Qinling Mountains—intermittently between July 2016 and September 2017—focusing on turquoise and cinnabar. Studies of turquoise and its relationship with the early state of China have been carried out recently, and preliminary results show that the turquoise of the first bronze state, Erlitou, probably came from the Qinling Mountains (Xian Yiheng et al. 2016a; Ye Xiaohong et al. 2014). I collected data from historical records and performed a geoarchaeological survey. The Han River and its tributaries were my focal points (Figure 1, locations 3–9), as these

The primary mining tunnel is well preserved

are known to have the largest deposits of turquoise in China. Two additional locations were investigated (Figure 1, locations 1 and 2), even though deposits of turquoise were expected to be small.

The Hekou turquoise mine is the nearest to the Luoyang Basin (Figure 1, location 1). This site was previously recognized as Paleolithic (Wang Yitao 1986), but recent geoarchaeological research has shown that it was a turquoise mining site. Contrary to the other sites, it is located near a river, on the bank of the Luo River, which flows to the Luoyang Basin. The mined turquoise was likely transported along this river. The primary mining tunnel is well preserved, measuring about 6 m high and 15 m wide. Radiating from this tunnel are three smaller lateral tunnels. Mining debris is found throughout the mine as well as in its surroundings. Earlier investigators found large amounts of mining hammers, potsherds, pieces of turquoise, and bones (Xian Yiheng 2016). I also collected several mining hammers (Figure 2), which probably date to the Bronze Age and before (Xian Yiheng et al. 2016b), but no turquoise. I did, however, observe a thin layer of turquoise in situ in the rock.

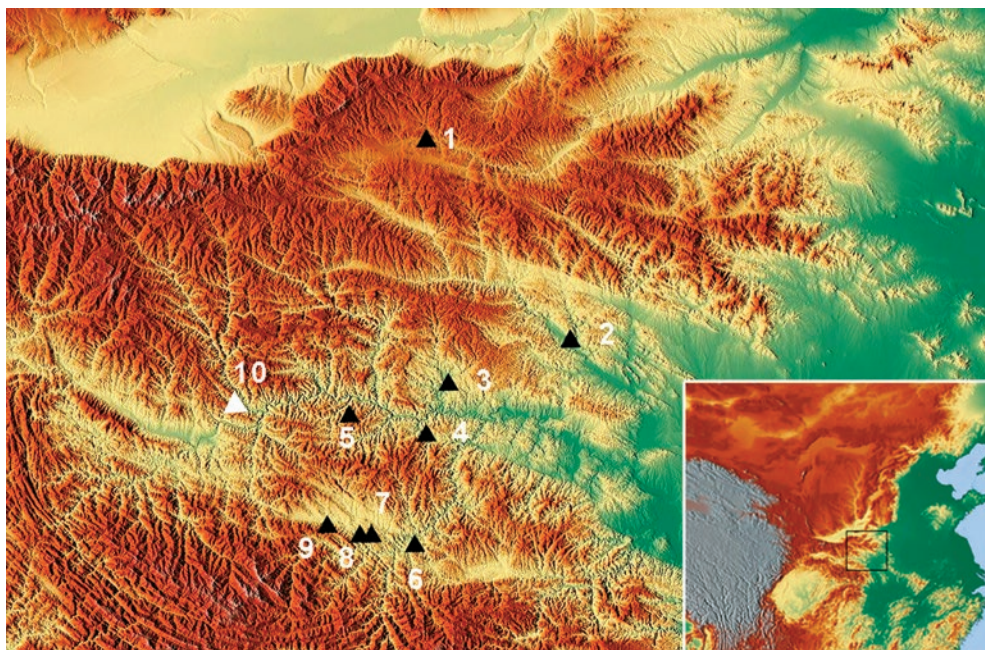


Figure 1. The locations surveyed: (1) Hekou; (2) Dashiqiao; (3) Yaojiapo; (4) Yungaisi; (5) Yue’ertan; (6) Wenfeng; (7) Yujiayan; (8) Labashan; (9) Jianliandong; (10) Qingtonggou. Black triangles indicate turquoise mines; the white one (10) marks a cinnabar deposit.



Figure 2. Ancient stone mining hammer found at the Hekou site (Luonan, Shaanxi).

It seems that the amount of turquoise in this location was low, which resulted in the ancient traces escaping destruction by more recent activities. Dashiqiao (Figure 1, location 2) is close to Xiawanggang, which was considered a stronghold of Erlitou State along the Dan River and was probably a node in the transport system into the Luoyang Basin (Liu Li and Chen Xingcan 2003). I did observe many mining tunnels along the rivers, but no turquoise deposits. In the mountains, no ancient mining tunnels were found in the hinterland, although many modern mines exist in the region (Figure 3).

THE BAILONGDONG CLUSTER

The main focus of my survey was the region along the Han River and its tributaries. The locations I visited—Yaojiapo, Yungaisi, and Yue’ertan—are near the main canal of the Han River, while others are along



Figure 3. Modern mining tunnels in the Dashiqiao region.

its tributaries. Being close to rivers facilitated transport of the harvested resources. Even though the Han River in this region does not allow for large ships to pass, many small boats travel on the river. I traveled by small boat when visiting the sites at Yue’ertan. All sites in the Han River system are located in the high mountains (Figure 4). Even though they appear near rivers on maps, even the nearest is more than a 30-minute drive along the modern road. Because most mines are located near the top of a mountain, it takes another one to two hours to climb up to the mine. The Bailongdong cluster, for instance (Figure 1, location 5), consists of more than 10 mining tunnels, all located near the top of one mountain. It took me an hour and a half to walk from the foothills to the Bailongdong cluster (Figure 5).

Bailongdong Cave (“White Dragon Cave”) is the primary mining tunnel of this cluster (Figure 6). Even



Figure 4. The landscape of the Yungaisi region.

though many modern tunnels are nearby, Bailongdong Cave was mined during the Qing Dynasty, about 300 years ago, which is evident from an inscription on a stela at the entrance. Local villagers tell of a legendary Yue'er state based on turquoise production. All the

mines of the Bailongdong cluster are on one cliff face near the top of a mountain. The entrance of Bailongdong is 10–15 m high and about 5 m wide. Beyond the mine entrance is a 20-m-long slope paved with mining debris and dirt. At the end of the slope a tunnel has been dug, probably following a turquoise vein. The transition between the slope and the tunnel preserves stairs made out of small slabs and probably constructed to avoid collapse of the slope. More

than 10 small lateral tunnels penetrate the rock from both sides of the primary tunnel. These small tunnels are all relatively short and probably were made only to remove turquoise. I collected many small pieces of turquoise from the mining debris.



Figure 5. On the way to the Bailongdong cluster.



Figure 6. Turquoise in one of the tunnels of the Bailongdong cluster.

LABASHAN

Many mines in the Bailongdong cluster are still being exploited. At most of these locations, the ancient mines have been damaged. Three categories of damage can be identified. First are sites where the ancient mines have been completely destroyed by modern activities. Modern miners have continued excavating the ancient mines using modern machinery, which has destroyed the former entrance and all other ancient traces. Second are sites where the ancient tunnels are damaged but there are still visible traces of ancient mining activity. Bailongdong Cave is such a case. Third are sites where dirt and debris of large-scale modern exploitation have totally buried the ancient mine, which may or may not have been damaged or destroyed in the process. During my survey, I found two probable ancient mines where I think more geoarchaeological work could be done. The first one is Bailongdong Cave. The second is a site in the Labashan region (Figure 1, location 8).

Local villagers tell of a legendary Yue'er state

There are many modern mines at Labashan, but at the top of the mountain, one mine without a defined shape was found (Figure 7). As modern mining is usually done with machines, the tunnels are round and the surfaces around and in the tunnels are flat. Ancient miners used stone, bronze, or iron tools, with which it was obviously more difficult to break hard rock. So they looked for fragile parts that were easier to dig, resulting in irregularly shaped tunnels. I did not find any ancient objects in the abundant amounts of debris at this site, but I suggest that this mine should be investigated in the near future to determine its date



Figure 7. A probable ancient mine in the Labashan region.



Figure 8. Turquoise samples provided by a local miner in the Yaojiapo region.

and the scale of its exploitation. From all the locations I visited I collected many turquoise samples. These were mostly found in debris from the mines, but some were given to me by local miners (Figure 8). Talking to them I learned a lot about turquoise mining. The samples were labeled with their locations and will be sent to a laboratory for analysis and comparison with ancient samples.

CINNABAR MINING IN XUNYANG COUNTY

Aside from turquoise mines, I also investigated a cinnabar mining site, Qingtonggou, in Xunyang County along the Han River (Figure 1, location 10). This is said to be the source of the mercury in the tomb of the first emperor of China (Wang Xueli 2013). The mining of cinnabar in this region was probably much earlier than that of turquoise. The modern state-owned enterprise has stopped operations, but private mining is still in progress. Like the turquoise mining sites, the cinnabar mining tunnels are also in the high mountains, on the slopes near the top. It took me two hours to reach them. The modern mining activity is mostly on the hillside, with large tunnels everywhere. Older mines, with smaller and round tunnels, can be seen among them (Figure 9). Local villagers and miners told me there are at least 1,000 old mines in the mountains. It takes half a day of climbing to reach some of them. Although I obviously have not visited all of them, I collected cinnabar samples from two mines for analytical testing (Figure 10).

The resource locations in the Qinling Mountains are not the only mines I visited for my research project. Through my survey work, I learned a lot about mining and resource transportation, which is beneficial not only for my dissertation but also for my future scholarly career. The two probable ancient turquoise mines that I found deserve detailed geoarchaeological investigation in the near future. My samples cover nearly the whole turquoise region and may reveal unexpected details upon laboratory analysis, especially after comparison with ancient turquoise objects. The main deposit of cinnabar in China is not in Xunyang County but rather in the mountains of the Three Gorges region. I intend to perform survey work there in the future.

ACKNOWLEDGMENTS

This survey was sponsored by the Chiang Ching-kuo Foundation for International Scholarly Exchange and the Cotsen Institute of Archaeology Summer Travel Grant.



Figure 9. A possible ancient cinnabar mine in the Qingtonggou region.

REFERENCES CITED

- Chinese Academy of Social Sciences, Institute of Archaeology (CASS). 2014. *Erlitou*. Beijing: Culture Relics Press (in Chinese).
- Liu Li and Chen Xingcan. 2003. *State Formation in Early China*. London: Duckworth.
- Wang Xueli. 2013. The Mercury in the Mausoleum of the First Emperor and Its Source. *Wenbo* 3:2–16 (in Chinese).
- Wang Yitao. 1986. The Preliminary Survey at the Hekou Cave Site in Luonan, Shaanxi. *Archaeology and Culture Relics* 4:1–3 (in Chinese).
- Xian Yiheng. 2016. The Studies on the Geographical Origin Characteristics of Turquoise from the Laziya Mine Sites in Luonan, Shaanxi Province and the Surrounding Mine Areas. PhD dissertation, University of Science and Technology of Beijing (in Chinese).
- Xian Yiheng, Li Yanxiang, and Yang Qihuang. 2016a. The Provenance Studies on the Turquoise Objects Based on the Portable XRF and PCA Analysis. *Archaeology and Culture Relics* 3:112–119 (in Chinese).
- . 2016b. The Mining Hammers Found in the Jiyanyao Turquoise Mining Site in the Luonan County. *Acta Anthropologica Sinica* 35:1–12 (in Chinese).
- Ye Xiaohong, Ren Jia, Xu Hong, Chen Guoliang, and Zhao Haitao. 2014. The Preliminary Source of the Turquoise Objects Found in the Erlitou Site. *Holocene* 34:212–223 (in Chinese).



Figure 10. Cinnabar samples collected in the Qingtonggou region.



Collaborating by the Riverbank: Intersections of Memory and Tangible, Intangible, and Virtual Heritage on Pimu (Santa Catalina Island)

Wendy Teeter, Lynn Dodd, and Sedonna Goeman-Shulsky

UCLA AND USC ARE KNOWN FOR their rivalry, be it in football, film, or medical school. However, their archaeologists work together closely on Santa Catalina Island, called Pimu or Pimungna by its original inhabitants (Figure 1). A goal of this collaboration is to make information about the unique history of this Channel Island available to scholars, descendant communities, and the general public. Pimu is a part of the Tongva homelands, along with three other southern Channel Islands—Santa Barbara, San Nicolas, and San Clemente—and portions of the Los Angeles Basin stretching from the San Gabriel Mountains to the Santa Ana River (Figure 2). The people who self-identify as Tongva today are also known as Gabrielino, after the Spanish San Gabriel Mission. During the Spanish conquest, the villages around the missions were emptied and indigenous people were forced into servitude. These people normally identified themselves by the villages in which they lived. Each village, typically home to members of related families, had social and economic relationships with other families, clans, and villages, as well as with people who spoke different languages and lived great distances away. Today, many descendants still live on their traditional homelands in the Los Angeles Basin and even on Pimu.

A full inventory of archaeological collections was undertaken

In 2007, after a massive fire denuded the hills and valleys of a large section of Pimu, archaeologists Wendy Teeter (Fowler Museum at UCLA) and Desiree Martinez (Tongva; Cogstone Inc.) collaborated with the Tongva Traditional Council of Pimu and Ti'at Society to understand better when the ancestors of the Tongva first came to the island and what life was like for the generations of families that inhabited at least 14 large villages and more than 1,000 other cultural sites for at least 8,000 years. This effort is known as the Pimu Catalina Island Archaeology Project (PCIAP). Archaeologist Karimah Kennedy Richardson (Autry Museum) joined Teeter and Martinez as co-director in 2009 to map, evaluate, and date the cultural sites of all periods on the island.

COLLABORATION BETWEEN UCLA AND USC

Excavations and the collecting of material culture from the island have gone on since the 1890s. How-



Figure 1. View of Pimu (Santa Catalina Island). (Photograph by Sedonna Goeman-Shulsky)

ever, prior to the work of the PCIAP team, only two significant attempts to bring the research together had been undertaken, by Dean Decker (1969) and Robert Wlodarski (1982). PCIAP team members took up where these efforts ended. For the past 10 years, PCIAP members have been ground-truthing and collating the many surveys of sites done on the island. They have undertaken a full inventory of archaeological collections; curating these collections, tracking down missing field documentation, interviewing previous island archaeologists and researchers, and filling in gaps in artifact sourcing and analysis, dating of sites, mapping, and report writing. Graduate students who have helped meet this challenge include Austin Ringlestein (CSU–Northridge, Anthropology MA 2015) at Two Harbors, Tom McClintock (UCLA/ Getty Conservation Program MA 2016) at Torqua Cave, and Hugh Radde (CSU–Northridge, Anthropology MA 2016) at Toyon Bay. Much remains to be done, and there are ample opportunities for undergraduate and graduate students to get their hands dirty, wipe the sweat from their brows, and contemplate the past in a stunningly beautiful location.

While this work proceeds, other investigations are underway on parallel and supportive tracks to reveal

where the earliest sites on Pimu were located. USC archaeologist Lynn Dodd investigates environmental factors to help locate some of the earliest sites established on the coast of the continent. Since the last glacial maximum, roughly between 21,000 and 27,000 years ago, when the greatest amount of freshwater was bound up in ice during the period of anatomically modern humans, the sea level has risen hundreds of feet. The coastline visible today was well away from the water's edge when people first started coming to the California Channel Islands. Since the earliest sites were established off the coast of California, the sea level has risen more than 60 m (200 feet). Remotely operated vehicles with sensors that trace salinity and conductivity enable mapping of submerged water sources, which help identify where coastal springs that could have supported permanent or periodic settlement were once located. These freshwater sources can be indirectly dated using radiocarbon analysis of freshwater-loving plant remains retrieved in sediment cores. Tongva community members do not want archaeologists to disturb ancestral burial locations, so researchers use minimally invasive methods, such as remote sensing and coring, in locations that are unlikely to contain burials.



Figure 2. Tribal map of southern California, including Santa Catalina Island. (Image by Jacob Gutierrez)



Figure 3. A stagecoach stops at Eagles Nest Lodge, circa 1899. (Courtesy Santa Catalina Island Museum)

PCIAP has conducted a field school for Native American and non-Native students during most summers since 2008. The project, a Register of Professional Archaeologists field program, is particularly noted for emphasizing broad collaboration with different environmental sciences using rigorous scientific techniques while also emphasizing indigenous meth-

odologies, ethical collaboration, and respect for indigenous peoples in the formulation, execution, and afterlife of archaeological work. This approach includes working closely with the residents of Pimu, the city of Avalon, the Santa Catalina Island Museum, and the Santa Catalina Island Conservancy, all of which take the stewardship of the island and its cultural and ecological resources seriously. The field school gives students a chance to see how stakeholders can work together and matches academic depth with the legal and ethical responsibilities of cultural resource management. As an example of collaboration, PCIAP needed a place for students to focus their learning of techniques and methods of excavation, while the Santa Catalina Island Conservancy needed to document and understand the history of the late-1890s Eagles Nest Lodge, a well-

known and loved historic structure, before its planned rehabilitation. The PCIAP field school excavation and survey helped in completing compliance requirements of the California Environmental Quality Act. While the reports have been completed, the recovered data and artifacts provide further opportunities for research.

A BRIEF HISTORY OF EAGLES NEST LODGE

Eagles Nest Lodge was built in 1896 by Joseph and Hancock Banning in the interior of Pimu, along the banks of the spring-fed Middle River. The lodge reflects multiple stages of colonial history on the island. It has functioned as a private retreat, as a working interior island ranch residence, as a for-hire hunting lodge, as a stagecoach stop, as a site of tourist refreshment, and currently as a site of heritage learning and teaching. Eagles Nest Lodge was initially built as a working ranch residence, with multiple outbuildings to support domestic animals, horses, and goats. It was also the end and turning point for the interior stagecoach line. Until 1919 it provided a rest stop for stagecoaches that ferried occupants and visitors around the island (Figure 3). Eventually, the road was extended to Little Harbor, located on the windward side of Pimu, where the Little Harbor Inn

was built in 1895 and subsequently abandoned after only a few years.

In 1919 chewing gum magnate William Wrigley, who owned the Chicago Cubs, acquired the island and refurbished Eagles Nest Lodge, expanding this new visitor destination with dozens of canvas tents for hunters and adventure seekers (Figure 4). Guides were employed to assist in the hunting of local Catalina quail and introduced goats (Figure 5). Advertisements enticed Angelenos with the promise of great hunting, fine meals, and music. The *Catalina Islander* wrote in 1928:

The picturesque hunting lodge, under its clump of cottonwoods and wild cherry trees, beside the lilting Middle Ranch stream, stocked with trout, now has a big dining room, where goat barbecue, prepared by a Spanish chef, is served; a trophy room, lobby, and reading rooms. Fifty one-room bungalows have been erected to take care of hunting parties remaining overnight. Sure-footed horses, guides familiar with the thrills of the goat country, guns and ammunition, are supplied at the lodge.

During the Second World War, Eagles Nest Lodge was closed and most of the island was evacuated. The lodge reopened in 1947. A new inland motor tour brought visitors into the interior. At the lodge, visitors were offered refreshments while learning about the history of the island until 1984. The Santa Catalina Island Conservancy was formed through the efforts



Figure 4. Plenty of space for hunters to camp at Eagles Nest Lodge, with dozens of canvas tents and bungalows available, 1928. (USC Digital Library CHS-36612 from the California Historical Society Collection at the University of Southern California and used under the Creative Commons by Attribution license)

of the Wrigley and Offield families in 1972, when both families deeded 88 percent of the island to the organization. Its mission is to balance conservation, education, and recreation on the private land trust. This work includes management of the lodge, which formally closed to visitors after a devastating flood in 1995. Unfortunately, no structural repairs have been undertaken to date, and the lodge continues to decline. The loss of land to the Middle River over the years has moved the road to the front of the lodge (Figure 6).

Excavations undertaken at Eagles Nest Lodge address a compliance requirement and create an

opportunity for PCIAP, USC, and UCLA archaeologists to make the history of Eagles Nest Lodge available to the public. For this they use an array of presentation options, both traditional and cutting edge; for instance, creating an open-source platform for researchers around the world to access primary source data. An Internet site allows visitors to experience the history of Eagles Nest Lodge, from its origins as a private retreat for the Banning brothers at the end of the nineteenth century to its role as a tourist destination today. Eventually the website will offer lesson plans formulated with input from members



Figure 5. Visitors enjoy the fire at Eagles Nest Lodge, with trophy heads and hides as primary decor, 1928. (Photograph CHS-36613 from the California Historical Society Collection at the University of Southern California and used under the Creative Commons by Attribution license)



Figure 6. Overhead image of Eagles Nest Lodge. Note its proximity to the dirt road. Middle River is on the right side of the image. (Photograph by Lynn Dodd)

of the Tongva and Avalon communities, educators, and archaeologists. In addition, Lynn Dodd and her USC colleagues are developing virtual reality and 3D models of objects found on the island. This project develops publicly accessible resources and encourages interest in and stewardship for the island's long history.

Eagles Nest Lodge is a touchstone for the island's history

For many, the Eagles Nest Lodge is a touchstone for the island's history. As it stands now, it is a shadow of its former self. Well-intentioned plans for its renovation or demolition and reconstruction on another site have not materialized. During the past 30 years, when the historic structure was little used by visitors and no longer occupied, Eagles Nest Lodge succumbed to the ravages of vandalism and natural processes. A storm in the mid-1990s caused the Middle River to erode the dirt road that passed by the lodge, nearly undermining the structure itself and making it nearly impossible to open the front door, which once provided entrance to a broad, welcoming trophy room

dominated by a large fireplace where visitors congregated after hunting and before meals. It is this earlier vitality that PCIAP hopes to share.

Technology is providing new opportunities to engage the public and broaden research. Digital photographs and videos, as well as three-dimensional photogrammetric models of excavated artifacts and panoramas of the interior and exterior of the building, will be used in interactive settings and will be available for download (Figure 7). A brief virtual reality experience focused on the island's history is downloadable through the website and can be played on virtual reality headsets such as Gear VR, Google Cardboard, Oculus, and HTC Vive. The short film provides a short virtual ride in an ancient stagecoach. Viewers

gain the kind of experience available early in the last century to those who made island tourist pilgrimages deep into the island's interior on dirt roads for respite, rejuvenation, and sport hunting. For researchers and educators, all PCIAP field documents, photos, maps, research notes, and laboratory analysis related to Eagles Nest Lodge will be freely accessible to encourage new ideas and interpretations.

MAKING A WEBSITE AND VIRTUAL REALITY EXPERIENCE

The website will allow researchers, community members with memory of various periods, and tourists to explore and gain a deeper understanding of the archaeological findings and the well-documented history of this lodge. Virtual reality and three-dimensional imaging allow virtual visitors to explore an archaeological site alongside information about the historical significance of what they are viewing. This is an engaging educational experience for people who otherwise would have little insight into true archaeological work. Researchers can access all existing information in one place instead of scouring the Internet or making an appointment to view the collections. Furthermore, the website encourages those with memories and stories to contribute to the historical accounts of Eagles Nest Lodge. PCIAP relies on community effort and involvement. Approaching a



Figure 7. Project members demonstrate Panoscan seamless panoramic imagery to document the interior of Eagles Nest Lodge in 2015. From left to right: Marilyn Lundberg (InscriptiFact Project), Sandy George (USC archaeology undergraduate student), Lindsay Jacoby (CSU—Los Angeles anthropology graduate student), Wendy Teeter (UCLA Fowler Museum and co-director of PCIAP), and Lynn Dodd (USC). (Photograph by Lynn Dodd)

historical site as a place with community significance, and respecting and listening to collective memories, is vital to understanding the site's importance. As Teeter writes in a blog documenting the project:

There are three thousand people that live on Catalina Island and more than a million visitors yearly. Many of these islanders and visitors are multi-generational and have specific memories of Eagles Nest either as a holiday location, hunting area, or as a tourist stop where they received lemonade/coffee and cookies. Inland island tours still stop here generating a great deal of interest into its history, although there is currently no information that focuses on the history of the Eagles Nest Hunting Lodge and how it exemplifies the vision each land owner had for the island. (digitalarchaeology.msu.edu/eagles-nest-hunting-lodge/)

The virtual reality experience gives viewers a short ride inside one of the stagecoaches that formerly drove people across the island; today one is owned by descendants of William Wrigley. Dodd requested access to the stagecoach from Alison Wrigley Rusack and Geoff Caflin Rusack, who kindly gave permission. The virtual reality experience allows visitors to encounter the island's more recent history and provides a connection to the time, driving skill, and animal resources that were required for trans-

port prior to the age of the automobile. One of the pleasures and purposes of the stagecoach experience is to connect viewers with the larger landscape within which Eagles Nest Lodge sits. In only a few minutes, it enables an embodied experience of the island. Similar to being there, or even in preparation for being there, it serves as a portal to expand interest in, and awareness of, how people lived here historically and what brought them to Pimu. The virtual environment provides a context for the bullets, silverware, jewelry, bones, and other artifacts found at Eagles Nest Lodge during PCIAP field schools by giving them vitality and placement in ways that descriptions cannot (Figures 8 and 9).

Most of the content of the virtual reality experience centers on the nineteenth and twentieth centuries in a celebration of historic Pimu, but it also addresses the loss of life, lifeways, and territory of indigenous island residents that followed the invasion of (mostly) Spanish and English speakers. Making reference to that reality to perpetuate its memory is a deliberate choice, allowing viewers to remember the cost of what we see and enjoy, or suffer, today. Although visitors to the island typically come to escape to the beauty and ruggedness of a sparsely populated, natural outdoor recreation area or to enjoy a weekend of company, eating, and drinking, the virtual reality experience deals with the dire past of the indigenous people here



Figure 8. An early twentieth-century Gibson Girl brooch (Courtesy Pimu Catalina Island Archaeology Project). Field and artifact photos will be made widely available to promote research on Eagles Nest Lodge.

and on the adjacent mainland in clear but non-confrontational language. This project could have focused more stridently and clearly on this part of the island's past but chose not to do so, at least in this particular production.

SITE CONTENT AND LAYOUT

The website will initially have two paths for access to archival data and images of Eagles Nest Lodge; to explore the virtual reality experience or to search for

Making reference to that reality perpetuates its memory

material directly. Over the years, field school excavations have produced field notes, field and artifact photographs, and data resulting from laboratory analysis. Additionally, many photographs of Eagles Nest Lodge, past and present, have been collected. Through the virtual reality experience, it will be possible to “walk” through present-day Eagles Nest Lodge as well as rendered, formal versions and to “pick up” items that were left behind, such as a brooch or a nail. Once the user picks up an artifact, he or she can



Figure 9: Still of a three-dimensional photogrammetric model of a bullet found at Eagles Nest Lodge during a PCIAP field school. Visitors to the project's website can download a pdf that enables interactive examination of the model. (Model created by Patrick McDonnell and Tom Zhang, USC; still by Lynn Dodd)

learn more about it and the time period from which it came. For educators, downloadable lesson plans will help guide students through different activities to learn more about ranching and tourism on Pimu. Links to information on pre-contact time periods will be provided as well. For researchers, digital copies of all field documentation and artifact cards will link to a virtual site map, with excavation units laid out. The project will be completely open source, and all visitors can view or download information by unit, material, or year of excavation. In each section, blog space will encourage public comment and memory sharing. Further resources will show how the lodge is still a living part of a large community.

FUTURE GOALS

Future goals of the Eagles Nest Lodge project include enhancing the virtual reality experience of the site so that a user can enter one of three eras to understand the changing uses of the lodge structure and adjacent property through its history. Ideally, a user will be able to open a “door” into an era to see what the lodge looked like at that time. Beyond this door, visitors will interact with items placed around the room by “picking them up.” They will see associated images and learn about use and excavation history of the objects. Virtually reconstructing the lodge in its three different historic styles will hopefully be achieved in the near future with the help of USC's School of Cinematic Arts. UCLA's Fowler Museum and PCIAP continue to digitize and clean up data to make them accessible and will work with UCLA's Graduate School of Education faculty to create the lesson plans and to optimize the experience for primary school educators. The collabo-



Figure 10: Marilyn Lundberg sets up the Panoscan to create a digital panorama of the main room of Eagles Nest Lodge. (Photograph by Wendy Teeter)

ration between UCLA and USC staff and faculty, making available a public resource on the history of Pimu, is ongoing. It is but a small part of PCIAP. By working together with the Tongva and other communities, as well as multiple institutions and disciplines, archaeologists can share their expertise and are better able to facilitate data access for others, while also looking at how the past shapes and influences life today.

ACKNOWLEDGEMENTS

PCIAP and the authors thank and recognize the Tongva for allowing research in and on their traditional homelands. Excavations and documentation at Eagles Nest Lodge have been undertaken with the support and collaboration of members of the Tongva and Catalina Island community through field courses and study visits sponsored by or operated by PCIAP since 2007 and in collaboration with UCLA's Cotsen Institute of Archaeology, the UCLA Law School's Tribal Learning Community and Educational Exchange Program, the Institute for Field Research, CSU-Northridge Anthropology, USC's Archaeology Research Center, and the Santa Catalina Island Conservancy. Ongoing support comes from the Fowler Museum at UCLA; USC Dornsife Archaeology, Spatial Sciences, and Environmental Studies; and the Wrigley Marine Science Center. The Eagles Nest Lodge web-

site that brings together two- and three-dimensional documentation was developed as part of the Institute on Digital Archaeology Method and Practice sponsored by the National Endowment for the Humanities and the MATRIX Center for Digital Humanities and Social Sciences at Michigan State University, and with support from USC's Provost Undergraduate Research Associates Program, Eric Hanson (USC School of Cinematic Arts), Candace Reckinger (USC SCA Jaunt Lab), Santa Catalina Island Conservancy, Marilyn Lundberg (InscriptiFact Project and West Semitic Research); USC students Sandy George, Patrick McDonnell, and Tom Zhang; and Alison Wrigley Rusack and Geoff Caflin Rusack.

REFERENCES CITED

- Decker, Dean. 1969. *Early Archaeology on Catalina Island: Potential and Problems*. Archaeology Survey Annual Report 11. Los Angeles: UCLA.
- Wlodarski, Robert. 1982. *A Bibliography of Catalina Island Investigations and Excavations (1850–1950)*. Occasional Paper 9. Los Angeles: Institute of Archaeology, UCLA.



Revisiting the Huoshaogou Cemetery

Chenghao Wen

THE SITE OF HUOSHAOGOU (Burning Gully, named for the Tertiary red soils on both sides of the canyon) is located near the modern village of Qingquan in Gansu Province in northwest China (Figure 1). This small village was unremarkable until 1974, when a large Bronze Age cemetery was discovered by local villagers on a piece of land where they planned to build an elementary school. When a bulldozer flattened the terrain, a number of ceramic jars were unearthed. With the Cultural Revolution going on for the previous 10 years, the villagers realized that

**A bulldozer
flattened the terrain
and ceramic jars
were unearthed**

these vessels must be antiquities, although they were unclear just how old they were. As the mind-set of the time was dominated by the “destruction of the four olds” (old customs, old culture, old habits, and old ideas), the fate of these jars can be imagined.

Fortunately, a young Qingquan resident named Yang Min had a vague understanding of the scholarly value of the pots based on what he had learned from



Figure 1. The location of Qingquan, where the Huoshaogou cemetery is located.

a relative who had once worked in the provincial museum. He valued the pots very much and rescued some from children who were using them as targets in their slingshot game. He shipped some to Lanzhou, the capital of Gansu Province, together with several copper knives, and showed others to his relative when he returned home for the Spring Festival at the beginning of 1975. The news of the discovery was reported to local administrators immediately, but it was not until the summer of 1976 that the Gansu provincial museum sent an archaeological team to investigate what turned out to be an important ancient cemetery. Although the cemetery had been partially destroyed, the results of excavation were impressive: 313 graves containing more than 2,000 artifacts were recovered.



Figure 2. Artifacts from the Huoshaogou cemetery. Top row, left to right: beads, a gold nose ring, and an amphora with turquoise inlays. Bottom row, left to right: two effigy jars, a copper shaft-hole ax, and a bronze mace head.

With more than 300 early Bronze Age copper and bronze objects found, this cemetery is one of the largest among its contemporaries (Figure 2).

After salvage excavation in 1977, all objects were cataloged and stored in the warehouse of the provincial museum. The work of sorting and publication was delayed time and time again because of funding issues and other reasons. Only in 2013, nearly four decades after the original excavation, did Wang Hui, director of the Gansu Provincial Institute of Cultural Relics and Archaeology (GPICRA), revive the project. Because of significant changes in personnel and administrative organization over the prior four decades, the original notes and illustrations had been relocated multiple times, which resulted in the loss of some of the original data, including all field photographs. Limited by the field excavation methods and social environment of the time, the preserved records were far from suitable for publication. Even a plan showing the boundaries of the cemetery and the excavation areas was absent. The deaths of the original excavators made the situation even more complex. It

was therefore deemed necessary to revisit the site and make sure of the accuracy of the records before their publication.

In October 2016, I was commissioned by the director of GPICRA to revisit the cemetery of Huoshaogou as a member of the editorial board of the field report. The goals of this field trip were to confirm the exact location of the cemetery and the excavation boundaries in 1976, to take aerial photographs of the cemetery and record the current state of preservation, and to conduct a brief surface survey along the river valley near the cemetery to locate any possible dwelling sites contemporaneous with the cemetery. These three goals could not have been achieved without the supportive cooperation of local colleagues, especially Li Yulin from the Bureau of Culture, Zhang Jianjun from the Institute of Archaeology, and Wang Pu from the municipal museum in Yumen.

Finding the location of the cemetery was not easy. Due to a gap of 40 years, many local villagers who had witnessed the discovery of the cemetery and participated in its excavation were no longer alive or



Figure 3. Liang Quanxi (center), our local guide during reinvestigation of the Huoshaogou cemetery, with director Zhang Jianjun (left) and curator Wang Pu (right). Note the deserted elementary school in the background. This must have been the center of the excavation area in 1976.

More than 2,000 artifacts were recovered

had migrated to urban areas far away. Fortunately, Liang Quande, aged 70 and one of very few seniors living in the village, had a scattered memory of the sensational discovery. Following his lead, we found the approximate location of the cemetery inside the enclosure of the now-deserted elementary school. He remembered layers of graves in the northeastern corner of the enclosure, within an area of no more than 100 m² (1000 square feet). This was obviously only a small part of the excavated area. Upon his advice, we approached his 52-year-old brother, Liang Quanxi (Figure 3), who alleged that he had once excavated part of the site, under the supervision of archaeolo-

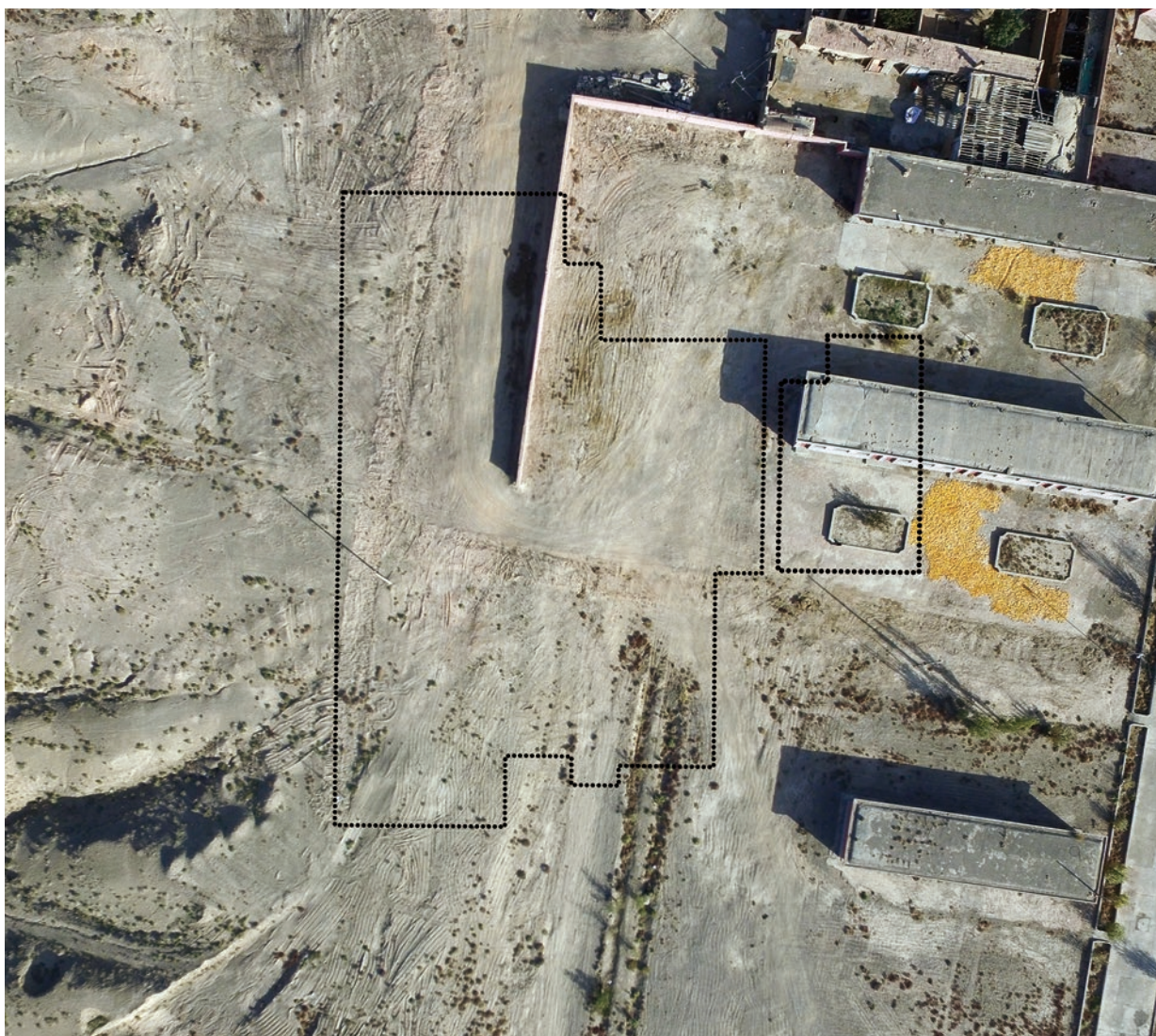


Figure 4. Orthogonal aerial photograph of the Huoshaogou cemetery. The boundary of the excavations is indicated by the dotted line.



Figure 5. The landscape of the Huoshaogou cemetery. Note the tree-planting ditch in the foreground and the cemented embankment of the Burning Gully in the upper left. The modern village of Qingquan is located behind the trees in the background.

gists, to fulfill a requirement of his extracurricular education. With his help we finally confirmed the exact location of the cemetery and the four corners of the whole excavation area. With the help of Zhao Yanrong, who works in the Department of Visual Media in the Bureau of Culture in Yumen, we then took aerial photographs of the area with a drone (Figures 4 and 5).

Our brief surface survey along the river started on October 22, 2016, and took two days. Besides a previously confirmed dwelling site, Dadunwan (1 km or half a mile south of the cemetery), we found another quite promising location that is probably contemporaneous with the cemetery. It is on the west bank of the river, about 500 m (0.3 mi) west of the modern village. Red potsherds with a sandy temper and one fragment of a painted pot suggest that the site dates to the Siba period (Figure 6), spanning the first half of the second millennium BC. It is possible that during the Bronze Age, the terraces along the river were used as farmland. We also surveyed deserted agricultural terraces in the lower course of the river, north of the modern village. No early Bronze Age settlements were

found, but we encountered many ceramic fragments dating to the Han Dynasty (first–second century AD) and the much later Song-Yuan period (tenth–fourteenth century AD).



Figure 6. Potsherds collected on the surface of the west bank of the river, west of the village.



Our Trip to Italy with the Director's Council, June 2017

Adina Savin and Benson Harer

A DOZEN AVID SUPPORTERS of the Cotsen Institute of Archaeology joined director Willeke Wendrich in June 2017 for a very special two-week tour of Turin and Rome. The trip was geared for seasoned travelers who are fine with walking when and where it affords an in-depth experience of major sites of historical importance, and who desire unique experiences, such as access to sites known only to experts or normally closed to visitors. Of course, Italy is also a land of delicious cuisine and wonderful wines, as well as the



Figure 1. Museum director Christian Greco and Cotsen Institute director Willeke Wendrich during our private cocktail reception on the roof of Museo Egizio.

We were treated to a procession of drummers

fashion capital of the world. Happily for us, the tour allowed time to enjoy these as well as to make friends with fellow travelers, who were equally excited by what we were to see and do.

Our tour began in Turin, a beautiful city full of parks and piazzas, home of the House of Savoy since 1562 and briefly the capital of Italy during its unification in the nineteenth century. Our base was the charming Hotel Victoria, where we had a sumptuous buffet breakfast each morning in a garden setting and gathered each evening to enjoy drinks and each other's company in the lounge. We were soon all on a first-name basis, including with Willeke and her students. The hotel was well located, permitting us to explore the city on foot on guided tours and on our own during our free time. Throughout our trip, Willeke assembled a remarkable group of experts to guide us. All of them provided information and insights about the wonders we were visiting and proved delightful companions too.

The largest collection of Egyptian antiquities outside Egypt is housed in Museo Egizio, founded in 1824 by Charles Felix, Duke of Savoy, Piedmont, and Aosta and King of Sardinia. The museum recently

completed a top-to-bottom refurbishment under the guidance of its dynamic new director, Christian Greco, with the support of its forward-thinking president, Evelina Crisillin. Both greeted us warmly upon our arrival and treated us to their stories and that of the museum. Christian, a delightful host, toured us through the extensive galleries of the museum, providing details on major objects and how and why they came to be displayed as they are now. As if this were not enough, a private cocktail reception on the roof awaited us at the end (Figure 1). For those of us who still wanted more, a public lecture by Willeke followed. She explained how the Cotsen Institute is harnessing virtual reality technology to visualize and study archaeological sites. This work will permit the public to enjoy such sites remotely and may also be a three-dimensional way to document and preserve images from sites that are endangered. Afterward we discovered another delight: the Isis Spa in our hotel not only featured a refreshing swimming pool, but its walls reproduced some of the ancient Egyptian wall paintings we had just viewed at the museum.

Over the next few days, expert guides gave us walking tours and drove us to public monuments, churches, and palaces in Turin (Figure 2). Most noteworthy is the largest, unreinforced brick building in the world, the Mole Antonelliana, which is 165 m high. Originally planned in 1863 as a synagogue, it is now home to the National Cinema Museum. The lower floors allow visitors to have a hands-on experience with the development of motion photography, and the large central exhibit hall has an astonishing collection of props, sets, and films, including one of Clint Eastwood's spaghetti westerns. A shaft-less glass elevator evoked a fear of heights in me but provided a spectacular view of a gigantic movie monster as we traveled upward to the parapet around the dome of the building and a spectacular 360-degree view of the city.

Another extraordinary experience was a visit to the former Fiat automobile factory in the suburb of Lingotto. Now containing offices, a gallery, a hotel, and a bustling shopping mall, it still has the 1-km



Figure 2. Conservators explain their work on an ancient Egyptian coffin lid.

rooftop test track where Fiat once tried the automobiles manufactured below. The Agnelli family, which founded Fiat, also assembled a large art collection. Some of its Greek antiquities and impressionist works are on display in a small museum inside the former factory. A fortuitous bonus to our visit to Turin was a festival that originated in medieval times. We were treated to a procession of drummers, flag twirlers, and members of the major guilds and leading families of Turin. Each group was preceded by banners that announced their names. Notwithstanding the heat and humidity, they were all dressed to the hilt in period costumes of colorful velvet, lace, and leather, and they marched on foot or horseback toward a central square for a bonfire and other ceremonies.

Next we departed to Rome by train. If you have not used the trains in Italy recently, we can certainly commend this form of transportation. Our train ran



Figure 3. The authors in front of Il Fontanone, a monumental fountain on the Janiculum Hill, Rome.

on time and was clean and comfortable. A dining car nearby provided us with tasty treats and, most importantly, delicious cappuccinos that kept our spirits high. In Rome we stayed at an elegant, spacious hotel, the Donna Camilla Savelli, located in Trastevere, an affluent suburb of ancient Rome (Figure 3). The ground floor was characterized by very high ceilings, with full-length windows that looked out onto a beautifully groomed central garden. Sunlight flooded inside

Our time in Rome was jam-packed

each morning while we enjoyed another sumptuous breakfast buffet. The grounds included two much earlier structures: a convent—from which we were separated by a high wall—and an ornate, seventeenth-century Baroque church, which was open to both worshipping nuns and us. The streets surrounding the hotel abounded with shops and restaurants, and the evenings were full of music and laughter. We enjoyed dining in several of the outdoor cafés when we took meals on our own.

Our time in Rome was jam-packed, blending famous sites like the Forum, Saint Peter's Cathedral, and the Vatican Museum with relatively unknown locations like the Basilica di San Clemente. It is medieval in decoration and design at ground level, but we were able to wander through the excavated remains of the earlier fourth-century church upon which it was



Figure 4. Members of the Director's Council enter Cestius's Pyramid, the tomb of Roman magistrate Gaius Cestius.

built, and further underneath we visited the excavated remains of an ancient structure that served as a Mithreum in pagan times. We also visited the Jewish ghetto, which was both heartwarming and heartbreaking, as one might imagine. In a beautiful grand synagogue, services are still held, and people bustle about the shops and kosher restaurants in the area. But almost everywhere you look, you see small brass plaques embedded in the ground near entrances. Each one identifies Jewish citizens who used to live or work in the adjacent building, along with the date and death camp where they were murdered by the Nazis.

Everywhere we went, we were accompanied by at least one scholar—and often as many as four—in addition to Willeke. Each was able to interpret and amplify what we were seeing. Besides being excellent and enthusiastic guides, they were great fun to speak with over our many lunches and dinners together. They included Kevin Dicus, an archaeologist working at Pompeii and an expert on pagan Rome, who took us through the Forum; Stella Nair, professor of art history at UCLA and currently a Rome Prize recipient doing research at the American School in Rome; Line Cecile Engh, an expert on the medieval period, who brought to life church interiors and the history of the Vatican; and Sebastián Salvadó, an art historian, who took us through the Vatican Museums, highlighting the specific catholic philosophy underlying the collection strategy. Of course we also visited the Egyptian art collection of the Vatican, a special treat for us, as this is our special interest. Much of the collection is from the Late period, when traditional Egyptian art was transforming under Ptolemaic and Roman rulers. We saw some very strange pieces, such as a life-size Roman general in full regalia but with the head of a jackal. This was the first time anyone was able to give us an explanation for such pieces.

Two Rome adventures were among our favorites. The first was a visit to Cestius's Pyramid (Figure 4). After Egypt was conquered by Rome, Gaius Cestius,



Figure 5. The tomb chamber in Cestius's Pyramid with the remains of Roman frescoes.

a Roman magistrate, was so enamored of Egyptian architecture and culture that he built a 36-m-high pyramid in which to bury himself. The pyramid is a landmark, often recorded in early Roman art, and part of it became embedded in the city wall. Much of the wall was removed so that Roman drivers can speed

We saw some very strange pieces

by, but the tomb itself is rarely accessible to visitors. Willeke worked her magic and gained us entrance to the inner chamber, which is empty except for early Roman frescoes of protective winged goddesses (Figure 5). This was also the first time inside for our highly experienced local guide. Adjacent to the pyramid is a cemetery for non-Catholic foreigners, another site largely unknown to tourists but full of beautiful statuary and rich in historical context. We visited the burial plots of numerous dignitaries and poets, including Percy Bysshe Shelley and William Butler Yeats. Some Egyptianized gravestones were curious and fun to find. Tabby cats, both at the pyramid and

the cemetery, were charming residents and companions to our visit.

Our other favorite was the Domus Aurea, an amazing and legendary ancient palace built by Emperor Nero. Rediscovered about 20 years ago on the Palatine Hill, it now consists of a vast underground complex (Figure 6), with 9-m-high arched hallways and grand rooms that have been under excavation since the building was discovered—an impressive reminder of how grand and glorious some buildings in ancient Rome truly were. In ancient times, the palace spread across four of the seven hills of Rome, filled with gardens, fountains, and an artificial lake. The highlight of this visit was a room into which excavators had first tunneled through the roof from a garden above. The room now is part of a virtual reality experience. Once special helmets were placed on our heads, we were transported by voice-over narration



Figure 6. Members of the Director's Council enter Domus Aurea, the palace of Roman emperor Nero.

and music to the recent past, experiencing the room as the first excavators did, with faded frescoes. Then, after a scary moment or two while we were buried alive under rocks, the room unfolded again before us, as fresh and beautiful as when it was first painted. We were transported to the ancient past, walking through the adjoining rooms and out onto a sunny terrace with fountains and the lake below, with a cool breeze blowing. It was amazing and a real testament to what Willeke and her team at the Cotsen Institute are likewise trying to accomplish for the benefit of scholars and enthusiasts alike.

One other adventure bears mention. Willeke arranged for us to visit the stone-cutting studio of Peter Rockwell, son of the famous American painter Norman Rockwell (of *Saturday Evening Post* cover art fame). Peter demonstrated various techniques for carving limestone, marble, and granite and then challenged us to try our hands at carving (Figure 7). It was an illuminating and humbling experience that left us in awe of both Peter's skill and that of the Old Masters.

We hope this summary provides a fair idea of how much fun and how much of a connoisseur's visit this trip truly was. We hope to get another chance sometime soon, if Willeke will have us again.



Figure 7. Peter Rockwell in his stone carving studio in Rome. In the background Director's Council member Charles Steinmetz.

Selected Classes

Cooperation in academic archaeology includes working with the next generation. This entails instruction in the field as well as in the laboratory and the classroom. Below are descriptions of a selection of noteworthy and exciting classes offered through the Cotsen Institute.

Cutting Edge in Archaeology: A UCLA Extension/Cotsen Institute of Archaeology Course

Alan Farahani

In the 2017 winter quarter, a 10-week course with the title Cutting Edge Archaeology was offered as a collaboration between the Cotsen Institute of Archaeology and UCLA Extension. The course continued, in spirit if not in its speakers, a similar offering in the previous academic year. Each week more than 60 participants were provided a different lecture by a roster of outstanding archaeologists, who highlighted how advancements in archaeological methodologies and perspectives in their geographic areas or specializations are improving our knowledge of the human past in all its dimensions.

The speakers included Willeke Wendrich (UCLA, Near Eastern Languages and Cultures), Lothar von Falkenhausen (UCLA, Art History), Hans Barnard (UCLA, Near Eastern Languages and Cultures), Anneke Janzen (Max Planck Institute for the Science of Human

History, Jena, Germany), Charles Stanish (USF, Anthropology), James Snead (Cal State–Northridge, Anthropology), Kara Cooney (UCLA, Near Eastern Languages and Cultures), James Brady (Cal State–Los Angeles, Anthropology), and Alan Farahani (UCLA, Cotsen Institute of Archaeology).

Topics ranged from the use of stable isotopes to identify mobility in ancient Africa, to the exploration of caves in the Maya world to understand past rituals, to the reuse of ancient Egyptian coffins. As one participant summarized, “If interested in new areas of archaeological research, this is the place to be!”



Archaeology graduate student Amr Shahat prepares samples for isotopic analysis under supervision of Anneke Janzen.

ARCHEOL C220: Special Topics in Archaeology: Stable Isotope Analysis in Archaeology

Anneke Janzen

Over the last few decades, archaeologists have increasingly employed stable isotope analysis to shed light on the environments, diets, and mobility patterns of past populations. This graduate seminar offered an in-depth review of the systematics and applications of stable isotopes frequently used in archaeological investigations. The seminar had two goals. First, by the end of the course, students would be able to assess which isotopic analyses would be most useful in exploring research questions in their study areas. Second, even if students did not use any of these methods in their own research, they would be able to read peer-reviewed articles by those who did use isotopic methods, understand the methods employed, and be able to critically evaluate their usefulness.

The course was largely lecture-based, with each student giving a one-hour lecture on a topic of her or his choice. These lectures allowed students to tailor the class to their own needs as they highlighted the applicability of stable isotope analysis to their own research. Throughout the quarter, students worked with small sets of diverse isotope data from pub-

lished studies. Not only did they analyze and interpret these data, but these exercises also provided them with training in effectively visualizing data. For their final projects, students prepared grant proposals outlining isotopic work on archaeological or paleontological materials on which their own research focused, which they then presented to the class.

Finally, students had the opportunity to work on archaeological materials. As part of my postdoctoral research on early herder mobility patterns in Tanzania, I trained students in sampling archaeological tooth enamel, processing the samples, and analyzing their stable carbon and oxygen isotope composition. Students sampled the specimens at the Ancient Agriculture and Paleoethnobotany Laboratory. After that, samples were processed in the Microscopy Laboratory in the Geology Building, where students could interact with researchers from other departments using similar methods.

Selected Classes

Archaeology, Ethnography, and Ethnoarchaeology as Tools for Studying Contemporary Social Issues

Sonali Gupta-Agarwal

The undergraduate course Archaeology, Ethnography, and Ethnoarchaeology as Tools for Studying Contemporary Social Issues (ANTHRO 118/2) aims to make archaeology relevant in contemporary times. As ethnographies reveal diversity in human behavior and attitudes, archaeology probes into material culture to answer questions about how people lived and why they did things one way versus another. The study of traditional societies in the contemporary world through ethnoarchaeology provides clues to the nature of cultural change in the past. The past in turn helps give insight into problems faced by modern-day societies. The convergence of a present that can be observed through ethnographies and a past that can be imagined through archaeology is enlightening. When past and present are studied together in a structured framework, a trove of information regarding psychosocial processes can be revealed.

The class allowed students to view the past and the present in more meaningful ways, providing possible solutions to problems such as social inequality, pollution, illegal immigration, inadequate health care, conflict, and war.

Each week, students presented case studies and short films set in the past, juxtaposed with examinations of present-day problems and ways to address them. The class allowed students to connect the past, the present, and the future through projects, short films, video footage, and live interviews with guests from different parts of the world using Zoom, an online meeting platform. Students studied social issues by examining the underlying processes and the application of archaeological and ethnographic methods. The final class projects were short films made by groups of students, which were judged by two faculty members of the Cotsen Institute, Willeke Wendrich and Hans Barnard. The best three films will be showcased in a forthcoming archaeology short film festival.

Selected Classes

Honors Collegium HNRS147: The Anthropocene: An Archaeological Perspective

Hans Barnard

The relation between living organisms and earth is intricate and entails many mechanisms for mutual influence. Geological periods named after the remains of once living beings include the Carboniferous (359–299 million years ago) and the Cretaceous periods (145–66 million years ago). Reversely, dramatic changes in the environment have at times resulted in mass extinction events; for instance, at the transition between the Permian and the Triassic periods (about 252 million years ago) and between the Cretaceous and the Paleogene periods (about 66 million years ago). There is mounting evidence that during the past two centuries, natural fluctuations in conditions on earth have been profoundly affected by anthropogenic forces. Changes include a loss of biodiversity, the burning of fossil fuels, ocean acidification, ozone depletion, and alteration of the carbon, phosphorus, and nitrogen cycles; all altering global climate systems. Environmental scientists suggest that the world is currently entering a

new geological period in which the environment is permanently impacted by human activities. This new phase has informally been labeled the Anthropocene.

If the Anthropocene is accepted as the next geological period this raises questions as when to mark its beginning and how anthropogenic forces became so dominant. Some suggest putting the start of the Anthropocene at the first human use of fire (about 750,000 years ago). Others propose the the so-called Neolithic Revolution (about 10,000 years ago), the Industrial Revolution (around 1750–1850), or the first use of nuclear energy (1945). Humans began the ascent to their current position of global dominance at least 100,000 years ago with the combined explosive development of pyrotechnology, self-ornamentation, figurative art, music, language, burial rites, trade, composite tools, and so on. This allowed a species that was previously irrelevant to global ecosystems to disrupt the biological and ultimately the geological order. It is remarkable that while primate species typically number between 2,000 and 200,000 individuals, humankind now exceeds 7 billion and has been to the moon and back. One of the disciplines that can help us understand these phenomena is archaeology, which studies human behavior and the interaction between humans and their environment.

Archaeology from an anthropological perspective was the departure point for honors collegium HNRS147, The Anthropocene: An Archaeological Perspective. Students examined readings from a broad range of disciplines, including earth science, philosophy, biology, and geography, and discussed the relation



Students of honors collegium HNRS147, The Anthropocene: An Archaeological Perspective, work at the simulated archaeological site in the Skirball Cultural Center in May 2017. (Photograph by Danny Zborover)

between humans and nature from a humanities perspective. The goal was to establish a critical perspective of the Anthropocene and investigate the dichotomy between humans and nature, as well as the tension between static, dynamic, and pristine perspectives on the relationship between humans and their environment. One week of the course was reserved for guest speakers, and Emily Lindsey (assistant curator and excavation site director at the La Brea Tar Pits), Marcus Thomson (graduate student at the Department of Geography, UCLA), and Alan Farahani and Tom Wake (both affiliated with the Cotsen Institute) kindly discussed their views with the class. One weekend, students and instructor visited the Skirball Cultural Center to partake in a simulated archaeological excavation.

For their final project, students were asked to identify a work of art and discuss how it relates to discussions on the Anthropocene.

The brilliantly colored sunsets caused by the eruption of Mount Tambora in April 1815, for instance, were immortalized by many painters, including Joseph M. W. Turner (1775–1851) in his Chichester Canal (now in the Tate Collection), while the cold summer weather inspired Lord George G. Byron (1788–1824) to write the apocalyptic poem “Darkness.” Many other works of art, ranging from prehistoric rock art and Thomas Cole’s painting *The Oxbow* (1836) to Philip K. Dick’s novel *Do Androids Dream of Electric Sheep?* (1968) and films like *Planet of the Apes*, *Wall-E*, and *Mad Max*, reversely show the effect of climate change on human behavior.

Report from the Chair of the Archaeology Interdepartmental Degree Program

John K. Papadopoulos

THE ARCHAEOLOGY Interdepartmental Graduate Program, one of the leading centers of learning in world archaeology in North America and internationally, continues to thrive. In the past two years (2016 and 2017) we celebrated no fewer than 10 new PhDs:

- **Chelsey Fleming** (spring 2016), “Seeing Icons: The Evolution of Greek Sculpture from Sanctuary to Gallery”
- **Kanika Kalra** (summer 2016), “Water Management and Settlement Patterns in South India from circa Eleventh Century to Sixteenth Century AD”
- **Karl LaFavre** (summer 2016), “Macro-Scale Political History of the Lake Titicaca Region, Peru and Bolivia: A Synthesis and Analysis of Archaeological Settlement Patterns”
- **Christine Johnston** (summer 2016), “Networks and Intermediaries: Ceramic Exchange Systems in the Late Bronze Age Mediterranean”
- **Hannah Lau** (fall 2016), “Mobility, Cooperation, and Emergent Social Complexity in the Late Neolithic Near East”
- **Ellen Hsieh** (spring 2017), “Early Spanish Colonialism in Manila, the Philippines: A Historical Archaeological Viewpoint”
- **Ben Nigra** (spring 2017), “Huaca Soto and the Evolution of Paracas Communities in the Chincha Valley, Peru”
- **Stephanie Salwen** (spring 2017), “Barriers, Boundaries, and Byways: Water, Mobility, and Society in the Woodland and Colonial Period of the North American Atlantic Coast”
- **Evan Carlson** (spring 2017), “Capital Cities in Late Bronze Age Greater Mesopotamia”
- **Trevor Van Damme** (summer 2017), “Life after the Palaces: A Household Archaeology Approach to Mainland Greece during Late Helladic IIIC”

This September we welcomed three new graduate students to the program, including one international student.

Camille Acosta is one of the few students in our program who is a Los Angeles native. Camille has spent a good deal of the last decade in the United Kingdom, having completed her BA at the University of Edinburgh and an MA in heritage management in London. She also studied at the University of Oxford, with a research focus on Archaic Greek pottery. She worked on the Naukratis Project in Egypt and at the



Recent graduates Karl LaFavre, 2006 (left), and Ben Nigra, 2007 (right), at the beginning of their archaeological careers, assisting with an archaeological survey of the Tarapacá Valley in northern Chile.

British Museum, and on a topic commensurate with the Ancient Methone Archaeological Project, in which she participated with Sarah Morris and John Papadopoulos in the summer of 2017. They will also serve as her supervisors at UCLA.

Our incoming international student, **Sergio Alarcón-Robledo**, is an Egyptologist who hails from Spain. Sergio will be the first student in the program from the Iberian Peninsula. He holds a BA and MA in architecture from the Universidad Politécnica de Madrid and completed an MPhil at the University of Cambridge. A veteran of several archaeological expeditions to Egypt, he will focus on ancient Egyptian architecture under the supervision of Kara Cooney.

Joseph Lafayette Gaston is a graduate of Howard University and is the first BA from that venerable institution to study archaeology at UCLA. He also holds an MA in art history from the University of Memphis, with a focus on Egyptology. His research focuses on the prehistory of Northeast Africa, especially the fifth millennium BC. He will work with Willeke Wendrich, the inaugural holder of the Joan Silsbee Chair of African Cultural Archaeology.

Message from the Chair in the UCLA/Getty Interdepartmental Program in Conservation of Archaeological and Ethnographic Materials

William G. Roy

The UCLA/Getty Interdepartmental Program in Conservation of Archaeological and Ethnographic Methods (CAEM) is going through an important transition, unfolding a new era of preparing conservation professionals and advancing the science of conservation. Upon the retirement of David Scott, founding chair of CAEM and an important link to the art community, the dean of social sciences appointed a committee to review the program and evaluate its future. As a result, the university authorized a search for a senior scholar to sustain the faculty size. I was appointed temporary chair for this purpose. It is not unusual for the university to appoint temporary chairs in this sort of situation. I am a retired sociology professor who has been at UCLA since 1976, having served as vice chair of graduate studies and chair of the Sociology Department. I have been active in the Academic Senate, which has authority over all curricula and degrees at UCLA. I have chaired the Research Council and Graduate Council, which oversees graduate education. The same position was recently occupied by Ioanna Kakoulli of CAEM. I have also been active in the American Sociological Association, chairing its section on comparative and historical sociology, the closest relative to archaeology and conservation within sociology, however remote it may seem. My work



Figure 1. William (Bill) Roy, emeritus professor of sociology and Chair in the UCLA/Getty Interdepartmental Program in Conservation of Archaeological and Ethnographic Materials.

reorienting the teaching programs of the American Sociological Association toward graduate teaching garnered me Distinguished Contribution to Teaching Award.

The message from the chair normally offers detailed information on scientific breakthroughs and exciting discoveries within the field. What can a sociologist add when he chairs a conservation program? Perhaps a bit of what I am discovering about conservation might shed some light on the program from a different perspective. My current research is on the sociology of music, particularly how genres became the primary means of categorizing American popular music in the first half of the twentieth century. A century ago, music was categorized in many ways other than by genre. I aim to explain how genres became the fundamental form of categorization.



Figure 2. Marci Burton and Morgan Burgess create replicas of frescoes to understand the materials and techniques that were needed to create ancient and historic wall paintings.

Although untutored in conservation, I can share with you some important facts about UCLA and some sociological impressions of conservation science. Starting with UCLA, the university:

- was recently named the top-ranked public university in the United States by *The Wall Street Journal* and *The Times* of London.
- is the only elite American university created in the twentieth century.
- is the only elite public university in a major American city.
- offers only academic (not professional) undergraduate majors, which is why there is no undergraduate education major, business major, architecture major, social work major, and so on.
- is the only university with more than 100 NCAA national sports championships.
- recruits divisional deans and many top administrators directly from the faculty. Most of them return to being full-time faculty after serving in the administration, ensuring that academic values usually prevail over bureaucratic impulses.

- has the best program for the conservation of archaeological and ethnographic materials in the country.

A SOCIOLOGIST LEARNS ABOUT THE ART AND SCIENCE OF CONSERVATION

Sociologists of culture often employ a concept called “art world” to explain how new forms of art (or music, or drama, or dance) develop, going beyond the commonsense notion that new forms and works are invented by individual geniuses, though not at all denying that geniuses are important to the process. A work of art depends on not only the creativity of the artist but also the chemical features of paint, the texture of canvases, studio technologies, marketing processes, and institutions that allocate prestige. Impressionism, for example, would have been impossible without new ingredients of pigmentation, new modes of marketing through galleries, the decline of the French Academy, and new technologies of repro-

REPORTS FROM THE CHAIRS

Message from the Chair

(continued)

duction. Knowing about the entirety of art worlds helps viewers appreciate not just the genius of the individual creator but also the full materiality and social process of a work's creation. As a sociologist, I am now discovering the art world around antiquities and artifacts. Just as an enthusiast in a museum or gallery needs to know about the entire art world surrounding a painting, an admirer of antiquities or ancient artifacts needs to appreciate all the work that went into discovering and preparing them for display. I am learning how different and interdependent archaeology and conservation are.

The material integrity of archaeological treasures is never unproblematic. Archaeologists discover and make sense of ancient and exotic objects but often need the rare combination of scientific expertise and artistic sensitivity that conservationists bring to the table. Conservation combines materials science, information science, chemistry, geology, cellular and organismic biology, and other sciences. The materiality of antiquities and artifacts that eventually appear in museums or academic displays not only requires preparation but is also subject to the ravages of time and human contact. Conservation goes beyond deep scientific knowledge to an appreciation of social and aesthetic value. This is why the relationship with the Getty Conservation Institute and the J. Paul Getty Museum is so important. Conservation strikes me as one of the most intellectually satisfying bridges between hard-core science and artistic sensibility. The Getty Conservation Institute has a well-deserved reputation for bridging science and art into a truly twenty-first-century consciousness. This is what conservation

students are trained in and what they are then hired for by some of the top museums, universities, and research institutions around the world. Several of our recent graduates found such positions:

- **Elizabeth Burr** graduated in 2016 with the thesis "Dye Analysis of Archaeological Peruvian Textiles Using Surface Enhanced Raman Spectroscopy" and has been awarded a Samuel H. Kress Fellowship to work in the Arizona State Museum, Tucson.
- **Lesley Mirling** graduated in 2016 with the thesis "A Study of the Moiré Pattern of Tortoise-shell: Morphology of the Pattern, Techniques for Documentation, and Alterations of the Pattern and Shell by Accelerated Light Aging" and was awarded a Samuel H. Kress Fellowship to work in the Shelburne Museum, Shelburne, Vermont.
- **William Shelley** graduated in 2016 with the thesis "Biocorrosion of Archaeological Glass" and is now employed as a contract conservator at the J. Paul Getty Museum, Los Angeles.

THIRD-YEAR INTERNSHIP PLACEMENTS

During the 2017–2018 academic year, Morgan Burgess will work in the Objects Conservation Laboratory at the Houston Museum of Fine Arts, where she will focus on examining and treating objects for temporary exhibitions.

Marci Burton will work at the University of Pennsylvania Museum of Archaeology and Anthropology, where she will be involved with various projects, including the treatment and installation of objects for the new Ancient Middle Eastern Galleries as well as the treatment of a painted limestone Old Kingdom tomb chapel.

Mari Hagemeyer will divide her third year between two institutions and two coasts. During the summer and fall, she will be at the Portland Art Museum in Portland, Oregon. She will spend the



Figure 3. Lesley Mirling consolidates flaky paint on a historic duck decoy.

remainder of the academic year working in the Maryland Archaeological Conservation Laboratory in Saint Leonard.

Hayley Monroe will first return to the Yosemite Museum to complete a two-year project rehousing a portion of the basketry in the collection of the museum. In the fall, she will work at the Museum of Anthropology of the University of British Columbia. She will then finish her third-year internship at the Museum of Vancouver.

Lindsay Ocal will first participate in an archaeological expedition to Sardis, Turkey, jointly organized by Cornell University and Harvard University. She will then work at the American Museum of Natural History in New York, where she will help reinstall materials from the Hall of Northwest Coast Indians.

Michaela Paulson will split her third year among three institutions, beginning at the Historic Architecture, Conservation, and Engineering Center in Lowell, Massachusetts. After that she will move to the Yale University Art Gallery in New Haven, where she will evaluate the condition of the collection as it is moved from an old to a new storage space. She will also treat objects in preparation for exhibition. In 2018 she will head south to complete her internship at the Michael C. Carlos Museum at Emory University in Atlanta.

INCOMING STUDENTS

This September we welcomed six students to the program.

- **Austin Anderson** received his BA in anthropology from the University of San Diego in 2015. He is eager to develop a well-rounded education in conservation while gaining a better understanding of organic materials.
- **Elena Bowen** graduated from Wellesley College in 2013 with a BA in studio art. She is interested in working with communities through conservation and promoting teaching and diversity within the conservation field.
- **Emily Rezes** received her BA in archaeology and art history from Johns Hopkins University in 2014. She hopes to explore the importance of collections access and the growing influence of consultations in conservation treatment decisions while studying with the UCLA/Getty Conservation Program.
- **Kasey Hamilton** graduated from Tulane University with a BS in chemistry and a minor in art history in 2013. Her interests include archaeological residue analysis, preventive conservation, materials testing, and outreach and advocacy in conservation.
- **Megan Salas** received her BA (magna cum laude) from Yale University in 2013, with a double major in history of art and Near Eastern languages and civilizations. Her interests include ancient production techniques, pigment identification, and nondestructive material analysis.
- **Skyler Jenkins** received a BA in art history from Arizona State University in 2010. Her research interests include the intersection of organic and inorganic material in situ, interdisciplinary conservation outreach, preventive conservation, and conservation ethics.

Graduate Student Achievements

Robyn Price

THIS YEAR, THE COTSEN INSTITUTE of Archaeology has seen a great number of achievements by its students and recent graduates. Esmeralda Agolli (PhD 2014) has been tenured in the Department of Archaeology and Cultural Heritage at the University of Tirana, Albania. She studied with John Papadopoulos at UCLA. Bethany Simpson (PhD 2016) will be returning to the area as a postdoctoral fellow at the Getty Villa this year, as well as a lecturer in the Department of Near Eastern Languages and Cultures at UCLA. Her supervisor at UCLA was Willeke Wendrich. Kanika Kalra (PhD 2016) will work as an assistant professor at the Jyoti Dalal School of Liberal Arts in the Narsee Monjee Institute of Management Studies in Mumbai, India. She studied with Monica Smith at UCLA. Christine Johnston (PhD 2016) will work as a visiting instructor in the Department of History at Western Washington University. Her UCLA supervisor was Sarah Morris.

Quite an impressive number of students graduated from the Cotsen Institute with PhDs in 2017. Ellen Hsieh completed her dissertation, "Early Spanish

Colonialism in Manila, the Philippines: A Historical Archaeological Viewpoint," under the supervision of Lothar von Falkenhausen and Min Li. Hannah Lau completed her dissertation, "Mobility, Cooperation, and Emergent Political Complexity in the Late Neolithic Near East," under Elizabeth Carter. Benjamin Nigra, supervised by Charles Stanish, finished his dissertation, "Huaca Soto and the Evolution of Paracas Communities in the Chincha Valley, Peru." Stephanie Salwen completed hers, "Barriers, Boundaries, and Byways: Water, Mobility, and Society in the Woodland and Colonial Period of the North American Atlantic Coast," under Monica Smith. Evan Carlson, supervised by Elizabeth Carter, also filed this past summer. Evan's dissertation is titled "Inscribing the Landscape: City and State Building in Late Bronze Age Greater Mesopotamia." Most recently, Trevor Van Damme completed his dissertation, "Life after the Palaces: A Household Archaeology Approach to Mainland Greece during Late Helladic IIIC," under John Papadopoulos.

An impressive number of students received funding from outside the institute this past year. Jacob Bongers received a National Science Foundation Graduate Research Fellowship, the Orange County American Institute of Archaeology Scholarship, and the 2017 Sarah Elizabeth Filfillan Award. Danielle Heinz also received a National Science Foundation Graduate Research Fellowship. Deborah Sneed earned both the Charlotte W. Newcombe Doctoral Dissertation Fellowship and the 2017 John J. Winkler Memorial Prize. She was also offered the Lenart Graduate Travel Fellowship. Trevor van Damme received the 2017–



Recent graduate Kanika Kalra at the medieval site of Maliabad, Raichur District, Karnataka, India. The elephant is one of a pair that once stood outside a temple. The remains of a rampart are rising in the background.

2018 Hirsch Postdoctoral Fellowship at the American School of Classical Studies at Athens (Greece).

Even more students were successful in obtaining internal funding. Carrie Arbuckle won both the 2017 Ralph C. Altman Award and the 2017–2018 UCLA Dissertation Year Fellowship. Anna Bishop received the summer Foreign Language Area Studies Fellowship. Georgi Kyorlenski won the Early Modern Summer Research Mentorship. Robyn Price received both a UCLA Graduate Summer Research Mentorship and a UCLA Graduate Research Mentorship. Amr Shahat also received a UCLA Graduate Summer Research Mentorship. Kirie Stromberg received both a UCLA Graduate Research Mentorship and the year-long Foreign Language Area Studies Fellowship. Chenghao Wen received a UCLA Dissertation Year Fellowship.

In addition to this remarkable list of achievements, two of our incoming PhD students, Camille Acosta

and Lafayette Gaston, have been awarded Eugene Cota-Robles Fellowships. Robyn Price was a 2017 Grad Slam semifinalist with a presentation entitled “An Archaeology of Scent: Unearthing the Human Experience.” Karime Castillo Cardenas, Adam DiBattista, Gazmend Elezi, Terrah Jones, and Vera Rondano advanced to candidacy in the course of the 2016–2017 academic year.

Finally, “Reconstructing the Built Environment of the Millo Complex, Vitor Valley, Peru,” *Ñawpa Pacha* 37 (2017): 39–62, was coauthored by recent graduate Benjamin Nigra together with Augusto Cardona Rosas, Maria C. Lozada, and Hans Barnard.

Incoming Graduate Students

CAMILLE ACOSTA

is a Los Angeles native. After completing her undergraduate degree in Ancient History and Classical Archaeology at the University of Edinburgh, she obtained an MA in Arts and Heritage Management in London and worked in a variety of museums and cultural institutions in curatorial and project management roles, as well as in theater production and design. She returned to archaeology with a curatorial internship at the British School at Athens, Knossos and a postgraduate degree in Classical Archaeology at Oxford University, where she focused on Archaic Greece, particularly Ionia and its relationships with Cyprus and Egypt. Throughout, she has been involved in the Naukratis Project of the British Museum, researching jewelry and mirrors from the site in the collections of the museum. She joined the current excavations as the finds registrar. She is particularly



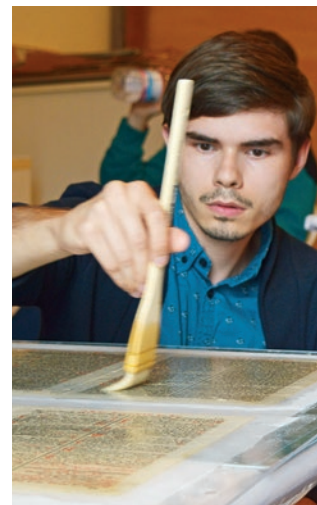
interested in the intersection between trade and sanctuaries in the Eastern Mediterranean and the dedication of metal votive offerings in Archaic Greece. At UCLA, she is looking forward to develop these interests along with undertaking analyses of ceramics and metals and investigating the use of digital technologies to enhance visitor learning in museums.



SERGIO ALARCÓN-ROBLEDO

obtained a BA and an MA in architecture at the Universidad Politécnica de Madrid and an MPhil in Egyptology at the University of Cambridge. His main area of interest is ancient Egyptian architecture, with a particular focus on Middle to Late Bronze Age temple and funerary structures. His MPhil thesis explored the development of temple architecture during the New Kingdom. This work highlighted a series of patterns and anomalies that open new lines of research, which he plans to pursue through an interdisciplinary approach at UCLA. He has taken part in several archaeological projects in Egypt and has worked with material ranging from the Old Kingdom to the Ptolemaic period. Since 2012, he has been a permanent member of the Polish–Egyptian Archaeological and Conservation Mission of the Temple of Hatshepsut at Deir al-Bahari (University of Warsaw), where he is in charge of study of the architectural elements in the Upper Courtyard. In 2016 he joined the Middle Kingdom Theban Project (Universidad de Alcalá de Henares), for which he codirects archaeo-

logical work at the Middle Kingdom tomb of Henenu (TT313). As a member of the Spanish team working in Qubbet al-Hawa (Universidad de Jaén), Sergio has examined the architecture of various Old and Middle Kingdom tombs and has surveyed several monuments and intact burials.



AUSTIN ANDERSON

received his BA in anthropology from the University of San Diego in 2015. Before graduating, he volunteered at the archaeological excavation of Bethsaida in northern Israel, where he was first introduced to some of the conservation practices involved in an excavation. The summer after graduating, he attended a preprogram internship at the Texas A&M Conservation Research Laboratory, where he was formally introduced to the conservation field. His work at Texas A&M centered mostly on treating organic and inorganic artifacts from underwater sites. He later returned to San Diego, where he gained experience in collections management through an internship

at the San Diego Archaeological Center. There he helped organize and revitalize collections, most of which came from prehistoric and historic sites in San Diego County. Looking to expand his experience in conservation, Austin attended the San Gemini Preservation Studies Program in Italy, where he studied book and paper conservation. As he prepares for his graduate work at the UCLA/Getty Conservation Program, Austin is eager to develop a well-rounded education in conservation while gaining a better understanding of organic materials. He is also interested in researching various new methods of conservation treatment.



ELENA BOWEN

graduated from Wellesley College with a BA in studio art in 2013. Looking for a field that combined hands-on work, chemistry, and problem solving, she discovered conservation and was immediately intrigued. As an undergraduate, Elena had the opportunity to visit conservation laboratories around Boston and connect with conservators through the Wellesley Network and an art history seminar focused on conservation. After graduation

Elena moved to Miami to teach high school chemistry through Teach for America. She also began attending a monthly conservation discussion group organized by a local conservator. During her first two summers in Miami, Elena gained museum and conservation experience through internships at Vizcaya Museum and Gardens and Caryatid Conservation Services, Inc. Her project through the learning division at Vizcaya focused on gathering data for a family needs assessment, while her time with the museum conservators was spent on preventive conservation work at the off-site storage facility of the museum. At Caryatid Conservation Services, she gained experience documenting and treating both modern and ethnographic art under the guidance and mentorship of Stephanie Hornbeck. The following fall, Elena accompanied Hornbeck to the Cultural Conservation Center at Quisqueya University in Port-au-Prince, Haiti, where she learned more about disaster recovery, conservation practices outside of the United States, and Haitian culture. Following three years of teaching high school science, Elena moved back home to Philadelphia to serve as an intern at the University of Pennsylvania Museum of Archaeology and Anthropology, working mainly on objects for the Egyptian move project and new Middle East galleries. She is interested in working with communities through conservation and promoting teaching and diversity within the conservation field.



KASEY HAMILTON

graduated from Tulane University with a BS in chemistry and a minor in art history in 2013. As an undergraduate student, she did research in archaeological chemistry and conservation science at Tulane and at the Department of Scientific Research at the Metropolitan Museum of Art, respectively. She hopes to apply her background in chemistry to the understanding of cultural heritage materials, degradation processes, and methods of analysis. Since receiving her bachelor's degree, she has had a variety of experiences in conservation and allied professions, holding internships in museum conservation labs, including at the Metropolitan Museum of Art, the Brooklyn Museum, and the Natural Science Collections Conservation Laboratory at the American Museum of Natural History. She has also worked with conservators in private

practice on outdoor sculpture, as well as books and paper. As a preprogram student, she treated a variety of organic and inorganic objects and artifacts, performed analyses to better understand materials and methods of construction, and acted as New York regional liaison for the Emerging Conservation Professionals Network of the American Institute of Conservation. She also worked as a registrar at the American Museum of Natural History, where she assisted with traveling exhibitions. Kasey's professional interests include archaeological residue analysis, preventive conservation, materials testing, and outreach and advocacy in conservation.



SKYLER JENKINS

is originally from the Washington, D.C., area. She received a BA in art history from Arizona State University in 2010. Her first experience with conservation was at the Arizona State Museum (ASM). During her preprogram internship at ASM, she attended an archaeological field school through the University of Arizona. She then completed a summer archaeological internship in

REPORTS FROM THE CHAIRS

Incoming Graduate Students

(continued)

Virginia before receiving an MA in principles of conservation from University College London (UCL) in 2012. At UCL, she worked with collections from archaeological excavations. Skyler solidified her love for archaeological site conservation and outreach while working at the Institute for Aegean Prehistory Study Center for East Crete in Greece in 2013. She then spent three and a half years working as an intern and project conservator on ethnographic and archaeological material at the ASM. She spent the past two summers as the site conservator on a project in Italy. Her research interests include the intersection of organic and inorganic material in situ, interdisciplinary conservation outreach, preventive conservation, and conservation ethics.



EMILY REZES

received her BA in archaeology and art history from Johns Hopkins University in 2014. Her undergraduate course work through the Johns Hopkins Archaeological Museum introduced her to archaeological material properties and various forms of technical analysis. Following graduation, she completed conservation internships at the Maryland State Archives, the National Museum of the American Indian, and the Hirshhorn Museum and Sculpture Garden. Through these positions she gained experience in the conservation of books and paper, archaeological and ethnographic materials, and outdoor bronze and stone sculpture,

respectively. Her most recent internship involved conservation of the dry coral collection at the American Museum of Natural History. During her time at the National Museum of the American Indian, Emily researched and treated objects and textiles selected for the exhibition *Unbound: Narrative Art of the Plains*. She also had the opportunity to participate in consultations and collaborations with native artists. Inspired by this work, Emily hopes to explore the importance of collections access and the growing influence of consultations in conservation treatment decisions while studying with the UCLA/Getty Conservation Program. Emily is also interested in expanding her knowledge of treating organic materials and in gaining experience in archaeological field conservation.



MEGAN SALAS

is originally from Los Angeles. She received her BA (magna cum laude) from Yale University in 2013, with a double major in history of art and Near Eastern languages and civilizations. She became interested in conservation as an undergraduate student and did an internship in objects conservation at the Yale University Art Gallery under the supervision of Carol Snow. She helped treat a Byzantine floor mosaic from Gerasa as well as Boeotian ceramic objects. Megan's work experience also includes a summer internship at the Shelburne Museum in Vermont, where she treated a carousel horse under the supervision of Nancie Ravenel. Since 2015 she has worked on easel and panel paintings as well as murals for Aneta Zebala Paintings Conservation in Los Angeles. She is currently working with Christian de Brer at the Fowler Museum, where she has most recently been treating Chinese and Vietnamese masks. Her interests include ancient production techniques, pigment identification, and nondestructive material analysis.

COTSEN COMMUNITY EVENTS



Figure 1. Graduate student Richard Ehrich (not pictured) and Hans Barnard present their fall Pizza Talk “Hubei Road Trip: A Tour of Sites and Museums in Central China.” Note the former layout and decoration of seminar room A222.

Pizza Talks 2016–2017

The Pizza Talks of the 2016–2017 academic year brought in a diverse group of scholars from across the globe to discuss important archaeology-centered topics, from Egyptian wood identifications to Native American mnemonics. During the fall quarter, Stephen Acabado (assistant professor, Anthropology) started us off with a talk entitled “Reclaiming Heritage: Community and Indigenous Archaeology in Ifugao, Philippines,” while Hans Barnard (associate adjunct professor, NELC) and Richard Ehrich (graduate student, Archaeology) talked about their “Hubei Road Trip: A Tour of Sites and Museums in Central China” (Figure 1). Caroline Cartwright (Department of Scientific Research, British Museum) presented fascinating results from her

research on “Food for the Dead: Organic Material from Ancient Egyptian Funerary Contexts.” Our own Willeke Wendrich (director of the Cotsen Institute) gave a talk entitled “Material Interactions: UCLA at the Museo Egizio, Turin,” followed by Alessia Amenta (curator, Department of Egyptian Antiquities and the Near East, Vatican Museums), who presented on “The Vatican Coffin Project: An International Team Project.” Next, Mary Louise Hart (associate curator, Getty Museum) talked about “The Last Paintings of Antiquity: Panel Paintings from Roman Egypt at the Getty Villa,” while Barbara Horejs (director of the Austrian Academy of Sciences) next gave a presentation on “An Early Bronze Age Metallurgical Center on the Western Anatolian Coast.” Richard

COTSEN COMMUNITY EVENTS

Pizza Talks (continued)

Lesure (professor, Anthropology) finished off the quarter with his talk “Early Farming Expansions in Mesoamerica and Beyond: Macro-regional Analysis and Continental Synthesis.”

Following this lively round of scholars, the winter quarter continued to bring in fascinating talks. James Snead (professor of anthropology, California State University–Northridge) and Austin Ringelstein (National Park Service) presented on their fieldwork in Yap, located in the eastern Caroline Islands of Micronesia. Their talk, “Roads of Social Responsibility: The Stone Paths of Yap, Micronesia,” provided a synopsis of their fieldwork, which included physical mapping of these architectural features as well as the collection of ethnographic information. Next up was our very own Deidre Whitmore (director of the Digital Laboratory), whose talk “Introducing the CIOA Digital Archaeology Lab” detailed the goals of the laboratory and provided an overview of the facilities and equipment available, as well as the consulting services offered by the manager of the laboratory. David Scott (professor at the UCLA/Getty Program in Conservation of Archaeological and Ethnographic Materials) followed this talk with “Egyptian Coffins and Sarcophagi in the San Diego Museum of Man: Some Technical Studies.” Scott presented a technical study conducted from 2007 to 2009 on the collection of Saite and Ptolemaic coffins and mummies currently located at the San Diego Museum of Man. Alan Farahani (postdoctoral fellow at the Cotsen Institute) next presented on “New

Answers from Old Seeds: Two Years of Research into Ancient Agriculture at the Cotsen Institute.” Farahani highlighted recent fieldwork and offered preliminary results from his work on material from Dhiban, Jordan; Ifugao, Philippines; and Iraqi Kurdistan. This work investigated the effects of empire, colonialism, and urbanization on agriculture over six millennia of agricultural practice. Anneke Janzen (postdoctoral fellow at the Cotsen Institute) spoke the following week on “Herders, Farmers, and Wildlife: Exploring Impacts of Early Food Production in Kenya.” Janzen presented the techniques and results of stable isotope analysis of wildebeest teeth from archaeological sites to elucidated the annual wildebeest migration cycle and patterns of local extinction in the context of the expansion of pastoralism in Kenya. René Vellanoweth (professor of anthropology, California State University) next presented a talk entitled “Archaeology, Island of the Blue Dolphins, and the Lone Woman of San Nicolas Island.” This lively discussion detailed the archaeological approach to the story of the Lone Woman of San Nicolas Island, trying to place the story in its archaeological and historical contexts. Next up was Fumie Iizuka (professor of anthropology, University of Arizona), who spoke on “Production, Distribution, and Use of the First Pottery from the Tropics of Panama.” In this talk, Iizuka discussed her multidimensional study of Monagrillo pottery, the earliest pottery of Central America (around 4500-3200 14C BP). Carlos Severi (professor

at the Laboratoire d’anthropologie sociale, EHESS, Paris) presented “The Arts of Memory: Anthropology of Mental Health.” Here he argued that the logic of Native American mnemonics (pictographs and *kipus*) cannot be understood from the ethnocentric question of the comparison with writing but requires a truly comparative anthropology. The next talk, “Booty to Baubles: The Material Impact of Rome’s Conquest of Egypt,” was given by Stephanie Pearson (Institut für Archäologie, Humboldt-Universität zu Berlin, Germany). Pearson highlighted the importance of considering contextual and artistic adaptations in understanding the variety of meanings behind the discovery of Egyptian material in Roman houses. The final winter talk, “Digital Gothic: Reverse Engineering the Lost Monuments of Medieval Paris,” was given by Meredith Cohen (associate professor, Art History). She discussed her approach to and aims in resurrecting some of the lost monuments of medieval Paris through digital reconstruction in Paris: Past and Present, a collaborative project based at UCLA.

The spring talk series began with Annelou van Gijn (professor of archaeological material culture and artifact studies, Leiden University, the Netherlands), who described her efforts and experiences in building a Stone Age house using local materials and historically appropriate tools in a talk titled “The Experimental Reconstruction of a Stone Age House: A Chaîne Opératoire Approach.” The following week, in a talk called “Community Archaeology—1984,”

Marilyn Kelly-Buccellati (visiting professor at the Cotsen Institute) and Giorgio Buccellati (professor emeritus and former director of the Cotsen Institute) showed how the involvement of the local community in their excavations at Tell Mozan was important in preserving the site. In their talk “Cultural Heritage in Context: Digital Technologies for the Humanities,” Noemi Mafrici and Michela Mezzano (PhD candidates in architecture and landscape heritage at the Politecnico di Torino) presented the collaborative PoliTo–UCLA effort to digitally visualize Nubian temples that were lost or removed from their contexts during the 1960s. Returning to the theme discussed by Marilyn and Giorgio Buccellati, the presentation “Building Futures, Saving Pasts: The Sustainable Preservation Initiative” described the work of Paul Burtenshaw (director of projects, Sustainable Preservation Initiative) and his company in training communities to develop businesses connected to local archaeology to create mutually beneficial economic opportunities and sustainable preservation. Megan E. O’Neil (associate curator of the art of the ancient Americas, LACMA) and Laura Maccarelli (Andrew W. Mellon Fellow at the Conservation Department, LACMA) asked, “How many people do you really need to understand a Maya pot?” and presented the Maya Vase Research Project interdisciplinary study of the materials and manufacturing techniques of Classic-period ceramics. The next talk visited the White House with Lothar von Falkenhaußen (professor of art history and



Figure 2. Graduate students Morgan Burgess and Marci Burton present “An American Icon in Plastic: The Technical Analysis, Study, and Treatment of a First Edition 1959 Barbie.”

associate director of the Cotsen Institute), who serves on the Cultural Property Advisory Committee. His talk, “Trying to Do the Right Things to Protect the World’s Archaeological Heritage: A Committee Member’s Tale,” described the continued work of the 1970 UNESCO convention to curb the illegal import of antiquities into the United States. Morgan Burgess and Marci Burton (graduate students of the UCLA/Getty Program in Conservation of Archaeological and Ethnographic Materials) presented “An American Icon in Plastic: The Technical Analysis, Study, and Treatment of a First Edition 1959 Barbie™” (Figure 2). Their presentation included a walk-through, from initial assessment to final treatment, including analytical techniques relevant to the study of materials—ancient and modern. Next, Jeremy Williams (PhD candidate, NELC) demonstrated the software and considerations that went into the “3D Digital Model of the Egyptian Fortress at Jaffa” and discussed the benefit of digital modeling in understanding the function and design of archaeological sites. In “Shimmering Bodies: Aztec Luxury in Context,” Patrick

Hajovsky (associate professor of art history, Southwestern University) argued that “luxury” objects both contributed to and became surrogates of their owners’ agency. Hajovsky’s presentation also examined how this relationship impacted sacrifice and government of Aztec society. Finally, wrapping up the year, Kristine Martirosyan-Olshansky (graduate student at the Cotsen Institute) summarized the highlights of her field research in “Rediscovering Masis Blur: A Neolithic Settlement in the Ararat Plain, Armenia.” Over three seasons, excavations have uncovered new data about life in the Shulaveri-Shomatepe culture’s sedentary community, its relationship to northern Mesopotamia, and the abrupt abandonment of the settlement.

— Vera Rondano, Maddie Yakal, Gazmend Elezi, Queeny Lapeña, Alison Crandall, and A. J. Meyer

COTSEN COMMUNITY EVENTS

Friday Seminars 2016–2017

The Friday Seminars of the 2016–2017 academic year, hosted by the Cotsen Institute of Archaeology, brought to UCLA an exciting and diverse group of scholars. The fall quarter began with a presentation by Philippe Walter of Sorbonne Universités, Université Pierre et Marie Curie. Walter presented a fascinating talk about the use of noninvasive chemical analysis with mobile instruments on a wide range of artworks from prehistory and antiquity, including rock art paintings from France and marble sculptures from Greece and Tunisia. Our second talk was by Dorie Reents-Budet from the Boston Museum of Fine Arts, who presented her research regarding the politics of commodities networks in the Classic Maya world. Reents-Budet presented the results of a multidisciplinary study of distributional patterns of pottery to understand the economic interaction spheres among the Maya, showing how ceramic distributional patterns coincide with configurations of alliance noted in other archaeological data. We continued with a talk, cosponsored by the Departments of Anthropology and Geography, by Mark Aldenderfer, from UC Merced. Aldenderfer shared research regarding the climatic contexts of trans-Himalayan population movements that occurred between 3,000 and 1,500 years ago. His talk focused on three regions of Nepal: Upper Mustang, the Khumbu, and the Rasuwa Valley. He provided a comparative assessment of how the inhabitants of these regions coped with climate variability. We were also visited by UCLA alumna Laurie Wilkie, now at UC Berkeley,

who shared results of her research about the material lives of black soldiers at Ford Davis, Texas, in the nineteenth century. She focused on materials associated with the 1869–1875 period of occupation of Ford Davis to explore the construction of black manhood in national discourses on citizenship rights, manliness, and manifest destiny. Our final talk of the fall quarter was given by Pierre Lemonnier from Centre National de Recherche Scientifique, who presented “About-Faces in the Anthropology of Material Culture: Implementing Mauss’s Program at Last.” Lemonnier offered a critical view of materiality and material culture studies and emphasized how recent studies have shown that particular objects, in their very materiality and physical use, can help members of a society perceive and share their collective lives, conception of the world, unspoken rules, and unique system of ideas. He presented as an example Ankave mortuary drums and ceremonies.

This stimulating lineup continued in the winter quarter, beginning with “Seals and Social Interaction at Kültepe in the Early Second Millennium BCE,” a seminar by Agnete Lassen, associate curator of the Yale University Babylonian Collection. Through the medium of seals, Lassen explored how the interaction and development of glyptic iconography can shed light on fascinating social encounters between Old Assyrian merchants and their neighbors at the trade colony of Kültepe in central Anatolia. The following week, Geoffery Summers of the University of Chicago engaged the Cotsen

community with a lecture on the prospects and perils of archaeological research on the small island nation of Mauritius, located in the western Indian Ocean. Mauritius was uninhabited until the arrival of the Dutch in the sixteenth century. Our third talk, “UNESCO and the 1960s Nubian Campaign: The Initial Phase of a 3D Project on the Nubian Landscape,” was presented jointly by Rosa Tamborino and Paolo Piumatti of the Politecnico di Torino (PoliTo). They demonstrated the methodology and technology being used in an ongoing joint research project of PoliTo and UCLA to digitally reconstruct the Nubian Nile Valley and its monuments before construction of the Aswan High Dam. The following week, Alan Sullivan of the University of Cincinnati gave a talk on the use of alternative cultivation practices in the American Southwest. Sullivan explained how woodland-dwelling agricultural populations supported themselves through systematic, low-intensity, intentional burning of the landscape. Fires promoted the growth of economically important weedy plants and allowed small-scale groups to thrive in areas where traditional corn farming practices were less productive. Instead of a regular lecture, the following week featured an informal discussion between the faculty and students of the Cotsen Institute and the Society for American Archaeology Executive Committee. The discussion centered on the implications of recent political transitions in the United States for archaeologists around the world and ranged from the perception of the United



Graduate student Karime Castillo introduces Philippe Walter and his presentation “Using Noninvasive Chemical Analysis with Mobile Instruments to Understand Artists’ Motivation in Antiquity.”

States in excavation host countries to political action being undertaken at home. Sarah Herr, president of the cultural resource management firm Desert Archaeology, next gave a thought-provoking lecture on how archaeologists might study the lifeways of ancient peoples who lived beyond the boundaries of well-identified cultural historical groups. Drawing on data from recent excavations in east-central Arizona, Herr presented a variety of methods and methodologies that archaeologists working in the American Southwest have applied to study residents of small settlements who did not construct homes or produce material culture in a homogeneous fashion. The final seminar of the winter quarter was given by Manfred Bietak, professor emeritus of the Institute of Egyptology at the University of Vienna and recent recipient of an advanced European Research Council grant to study the “Hyksos Enigma.” His talk centered on this research, focusing on his 50 years of excavations at the Hyksos capital of Tell el-Daba’a (Avaris) and detailing archaeological evidence for multiple different ethnic groups—including people from Egypt, the Aegean, Nubia, and the

Levant—coexisting and interacting at the site.

In the first seminar of the spring quarter, Bernd Müller-Neuhof, a postdoctoral fellow visiting from the German Archaeological Institute, challenged the marginality of the Jawa hinterland in northeast Jordan in the fourth millennium BCE based on his large-scale survey project. Tamara Bray of Wayne State University then argued in “Partnering with Pots: The Work of Objects in the Imperial Inca Project” that the Inca envisioned their pots as human bodies, and she suggested that these vessels were used by the state as imperial representatives in provincial affairs. Jessica Cerezo-Román next looked at Hohokam ideas of personhood through her analysis of cremation practices in the Tucson Basin. She found that while some aspects of personhood persisted from the Preclassic to the Classic period (AD 475–1450), changes in other aspects paralleled the sociopolitical changes of increased social differentiation and complexity. In conjunction with the Hampartzoum and Ovsanna Chitjian Conference on Armenian Studies, Arsen Bobokhyan delivered “The Synthesis of Archaeology

and World Systems Analysis and Its Application to the Region of Southern Caucasia,” a paper written by Pavel Avetisyan, director of the Institute of Archaeology and Ethnography at the National Academy of Sciences of Armenia. Nerissa Russel of Cornell University then delivered a fascinating talk on food taboos in Neolithic Çatalhöyük, arguing that the patterning of the animal bone assemblage has been shaped by a variety of taboo practices. In the final seminar of the spring quarter, our own Sonali Gupta-Agarwal, alumna of the interdepartmental program and current director of public programs at the Cotsen Institute, presented a talk entitled “Keepers of Tradition, Harbingers of Change: Tracing Communities of Practice through Archaeological Ceramics at Karanis, Egypt.” In her seminar, she presented on her work with potters in India and Egypt, posing a number of interesting questions about the ways in which knowledge pertaining to craft production is transmitted.

— Karime Castillo, Anna Bishop, Danielle Candelora, Reuven Sinensky, Georgi Kyorlenski, and Adam DiBattista



Figure 1. Willeke Wendrich delivers a presentation on public archaeology and community outreach in the California Nano Systems Institute.

Public Events at the Cotsen Institute of Archaeology

In October 2016, the Cotsen Institute presented the triennial Lloyd Cotsen Prize for Lifetime Achievement in World Archaeology to Jane Buikstra and her junior laureate, Gordon Rakita (see *Backdirt* 2016). The award ceremony was followed by two lectures—one by Buikstra with the title “Ancient Tuberculosis in the Americas: A Career-Long Quest” and a second, “Vignettes of a Mentor: A Bioarchaeological Lineage,” by Rakita. A reception with Peruvian food and

music in the hall of the California Nano Systems Institute followed the official part of the evening.

In January Willeke Wendrich delivered a lecture in the same venue, cosponsored by the Consulate of Ethiopia in Los Angeles. Her lecture was titled “Gold Diggers and the ‘Keep It’ Chant: UCLA in Ethiopia.” The lecture covered public archaeology and community outreach within the archaeological projects of UCLA. Ambassador Desta Woledeyohannes—trade,



Figure 2. Left to right: Willeke Wendrich, Ambassador Desta Woledeyohannes, and Sonali Gupta-Agarwal.

investment, and tourism secretary at the Ethiopian Consulate—spoke of the strong ties that archaeology can form between Ethiopia and the United States. The lecture was followed by samples of Ethiopian cuisine, a traditional coffee ceremony, and live Masinko music. The event was live-streamed, a first for the Cotsen Institute.

In February we had a book launch and a tête-à-tête with David Scott, the author of *Art: Authenticity, Restoration, Forgery* (published by the Cotsen Institute of Archaeology Press), combined with a presentation by Christian Greco, director of Museo Egizio (Turin, Italy), cosponsored by the Fowler Museum. Greco’s talk was titled “Art and Science: Bringing Egypt’s Magic to the Museum” and was delivered in the presence of Ambassador Lamia Mekhemar, consul general of Egypt; Antonio Verde, consul general of Italy; and



Figure 4. Left to right: Christian Greco; Kara Cooney, professor of Egyptology; and Rosa Tamborrino, professor of architecture at the Polytechnic University of Turin.

COTSEN COMMUNITY EVENTS



Figure 3. Author David Scott discusses his book *Art: Authenticity, Restoration, Forgery* on stage with Willeke Wendrich.

Valeria Rumori, director of the Italian Cultural Institute in Los Angeles. The events were concluded with refreshments inspired by Egyptian cuisine.

At the beginning of the summer, Jo Anne and Jan van Tilburg graciously opened their home in Malibu for a luncheon honoring and saying good-bye to Charles (Chip) Stanish, outgoing director of the Cotsen Institute. Stanish is leaving UCLA and Los Angeles to continue his career at the University of South Florida in Tampa, where he will head a newly established center focused on the study of human influences on disease and the environment. The event combined live Peruvian music and traditional cuisine with a beautiful view of the Pacific Ocean.

— Sonali Gupta-Agarwal

Open House 2017: Connections

The theme of the Cotsen Open House 2017 was “connections.” It took place on a sunny Saturday afternoon, May 13, 2017, coinciding with UCLA’s Bruin Day. In the spirit of the theme, the Cotsen Open House was a joint endeavor with the Fowler Museum. The afternoon started with two gallery talks in the museum. Willeke Wendrich spoke at the *Intersections: World Arts, Local Lives* exhibit, which illuminates the relationship between the collections of the Fowler Museum and interdisciplinary research. At the *Enduring Splendor* exhibit, I spoke about the relevance of jewelry in context and its anthropological significance. The gallery talks were followed by an enticing lecture entitled “Connections Ancient and Modern,” in which Monica Smith reflected on fieldwork in India. For a panel discussion on experiences in the field, she was joined on stage by Willeke (who works in Egypt and Ethiopia) and Stephen Acabado (who works in the Philip-

pines), allowing the audience an opportunity to interact with several faculty members. After the lecture and discussion, the laboratories were opened to the public to give visitors a chance to view our new Digital Archaeology Laboratory and renovated publications office. Visitors could furthermore interact with faculty and graduate students at the Egyptian, Mediterranean, Mesopotamian, Rock Art, East Asia, Armenian, Conservation, and Paleoethnobotanical Laboratories. Other offerings were a virtual reality presentation on Nubian archaeology by two visiting Italian scholars and a recorded lecture on community archaeology in Syria by Giorgio and Marilyn Buccellati. Children had the opportunity to engage with arts and crafts. The Open House drew to a close with food and drinks for all faculty, students, and volunteers involved. In all, the 2017 Open House was a success in showcasing how archaeologists work together to produce knowledge and help stimulate in young minds the appreciation of cultural heritage through community archaeology and interdisciplinary, cutting-edge research.

— Sonali Gupta-Agarwal



After the Friends of Archaeology dinner “Academic Excellence” (July 20, 2017). Left to right: John Papadopoulos (chair of the Archaeology Interdepartmental Degree Program), Ellen Hsieh (graduate student speaker), Willeke Wendrich (director of the Cotsen Institute), Karime Castillo (graduate student speaker), and Adam DiBattista (graduate student speaker).

Friends of Archaeology Events

DINNER LECTURES

Friends of Archaeology (FoA) dinner lectures bring together members and potential members in an informal setting to listen to presentations on a wide variety of archaeological topics. The programs, including hors d’oeuvres and wine before the dinner and lecture at the Faculty Center, give FoA members a chance to mingle with Cotsen Institute faculty and fellow guests.

The event on October 14, 2016, started the series with “Chocolate Conquers the World,” presented by Janine Gasco from California State University–Dominquez Hills. She traced cacao consumption from 4,000 years ago to the present, when people all over the world enjoy its virtues. It was a very sweet event with lots of chocolate. On January 31, 2017, Kara Cooney, chair of the Department of Near Eastern Languages and Cultures at UCLA, presented the very interesting though more serious topic “Recycling the Materiality of Death: How and Why Egyptian Coffins Were Reused.” The lecture

examined the evidence for coffin reuse within the context of the Twentieth and Twenty-first Dynasties and how the ancient Egyptians equipped themselves for the transition into the afterlife in a time of political, economic, and social collapse. On April 25, 2017, three of our graduate students were invited to present the program “Academic Excellence.” Every other year, John Papadopoulos, chair of the Archaeology Interdepartmental Degree Program, chooses students to discuss their work. Dinner guests enjoyed hearing about the accomplishments of Ellen Hsieh: “Archaeology of the Boxer Codex: Spanish, Chinese, and Indigenous Reactions in the Colonial Philippines,” Karime Castillo: “Glass Production in New Spain: Some Results of a Study in Technology Transfer and Adaptation,” and Adam DiBattista: “Hippo Tooth and Hog Tusk: Worked Animal Material at Ancient Methone.”

Program announcements appear on the Friends of Archaeology pages of the website of the Cotsen Institute. We intend to film the upcoming dinner lecturers, upon approval of the speakers. The recordings will be available online to members of the Director’s Council through a password-protected link.

FIELD TRIPS

On March 12, 2017, Anthony Caldwell, manager of the Scholarly Innovation Laboratory at UCLA, took a FoA group on a tour of architectural treasures in downtown Los Angeles, focusing in particular on the old movie theaters that at one time studded the stretch of Broadway between Third Street and Ninth Street. As the heart of the entertainment capital of the world, Broadway was home to more than two dozen picture palaces in various architectural styles: beaux arts, art deco, neoclassical, baroque, Spanish Renaissance, and some that defy labeling entirely. FoA members were treated to a fascinating discourse on the background of each building, with plenty of history and a few colorful details. The trip “Hidden Jewels, Forbidden Paths: Secrets of Rome and Turin” took place June 20–July 1, 2017. On this trip, Director’s Council members saw behind the scenes of Museo Egizio (Turin, Italy), the second largest collection of Egyptian antiquities in the world (after Cairo), and explored Rome with a number of international experts.

— Jill Siltan

COTSEN COMMUNITY EVENTS



The Online Ethnoarchaeology Research Group

Ethnoarchaeology, a subfield of archaeology, involves the study of contemporary cultures, societies, and technologies to provide relevant analogies to elucidate patterned behavior, thereby shedding light on the distant past. In essence, it is viewed as both a theory and a research strategy. Wendrich (2013:191) best describes ethnoarchaeology as a field that does not compare the present with the past but compares the present archaeological record with present active cultures. The Online Ethnoarchaeology Research Group (OERG) is the brainchild of Willeke Wendrich and Sonali Gupta-Agarwal. It was initiated in response to recent criticism (Gosselain 2016) highlighting flaws in the theory and methodology of the subject, as well as archaeologists' lackadaisical approach to

integrating ethnographic data into their research. One of the main goals of the group is to streamline methodology and theory related to ethnoarchaeological research. We discuss theory and method in ethnoarchaeology, ethnography, and field methods through case studies and documentation, with special emphasis on unique regional conditions. Membership is not limited to those in Los Angeles but involves participants from around the world via Zoom (a live online meeting platform). In the 2017 spring quarter, a total of 15 scholars from around the world met every Friday to engage in lively, thought-provoking discussions to improve the understanding and practice of ethnoarchaeology in academia. The countries represented by the scholars included Canada, Egypt, India, the Netherlands, Norway, Sri Lanka, and Thailand. All sessions were recorded and remain accessible to those interested in becoming part of the group. In the near future, we hope to publish an edited volume elaborating on the development of ethnoarchaeological research, current changes in

the field, and the importance of integrating heritage preservation, community, and digital archaeology in the practice of ethnoarchaeology. To join please contact sonaliga@ucla.edu.

REFERENCES:

- Gosselain, O. 2016. Provocation: To Hell with Ethnoarchaeology. *Archaeological Dialogues* 23(2):215–222.
- Wendrich, W. (editor). 2013. *Archaeology and Apprenticeship: Body Knowledge, Identity, and Communities of Practice*. Tucson: University of Arizona Press.

— Sonali Gupta-Agarwal



An Interview with Traveler and Donor Dorothy Jewell

Robyn Price

DOROTHY JEWELL GRADUATED from UCLA in 2006 with a BA in anthropology. Both an avid traveler and a regular attendee of events at the Cotsen Institute, she has visited more than 80 countries. Her unique exposure to such a diversity of cultural contexts provides a valuable perspective on collaboration, the theme for this issue of *Backdirt*.



Figure 1. Dorothy in Sacsayhuaman, 1978.

Robyn Price: Could you tell me a little about yourself and your relationship to the Cotsen Institute?

Dorothy Jewell: Well, I had a lot of classes here when I was taking anthropology, and we used the Lenart Auditorium or classroom A139. Some of my instructors, even though I was taking anthropology, had some of their offices in the Cotsen Institute, like David Scott. For my graduation present in 2006 he gave me a behind-the-scenes tour of the Getty Center and that was neat.

RP: You said that you studied anthropology at UCLA. What was your area of interest? How did you come to study here?

DJ: My main interest was cultural anthropology, but I was an undergraduate student. I really liked the Native American classes. I went to Santa Monica College before I came here, and I was taking classes more or less at random. And then an anthropology professor said, "Why do you not go see a counselor and get on the anthropology track instead of just taking classes at whim. You have been living this anthropological career most of your life, so why do you not make it official and do something with it?" And so I did. I applied to UCLA. A friend told me, "You never apply to just one college." To which I replied, "They either want me or they do not. I can still walk and I am no longer at an age where I am going to live in a dorm." My late husband also went here, and his family was as happy as I was when I got the e-mail. I am still friends with many of my fellow students. You know, we had an anthropology club. I took a lot of history classes as well, and the last class that I took was in Paris with Teo Ruiz, who is a history professor at UCLA.



Figure 2. Dorothy in Namibia, 2011.

RP: What did you think of your time studying anthropology?

DJ: I think that both anthropology and archaeology are wonderful degrees. It certainly makes you more flexible understanding other cultures. I have traveled a lot, and I really like the cultural aspect of it. This makes me think of a somewhat ridiculous memory. Just over a year ago, I was in Tanzania checking out Olduvai Gorge. I wondered why the workers were looking at me so strangely. I thought I was taking pictures of an archaeological excavation in process, but the workers were constructing restrooms. Oops!

RP: That's great! How did you come to fall in love with anthropology?

DJ: Travel has just always been in my blood, and I left Canada when I was 19 years old. I went to Europe for six months and it turned into five years. The travel bug has never left me, and so it is related to anthropology and archaeology. In 1978 I visited Peru (Figure 1). It was a period when the Shining Path (Sendero Luminoso) insurgents were active. I spent five days in Cuzco, but because of them I could not get to Machu Picchu at that time. My luggage went missing out of Miami, and my late husband went to the airport every day on the back of a motorcycle. He was constantly thrown rocks at; Americans were not exactly looked

on favorably by the militants. Mysteriously, the luggage turned up a week later in Arequipa in the middle of the night. The last time I was in Peru I got a tour behind the scenes of the Museum of Art in Lima. I had mentioned to the staff that I had taken a class with Chris Donnan, and they said that he was like a god to them. I also stopped in the village of Chinchero and visited the weavers which I had met earlier in the courtyard of the Fowler Museum, where they demonstrated their weaving.

RP: What did you do during your five years in Europe?

DJ: I spent two years in Norway working and half a year in Gibraltar as a barmaid. I told my mother I was working as a waitress at a restaurant. Well, it did serve food too. In Granada, I was teaching English, sometimes. In Morocco, I was not really doing anything but learning to surf. In England I worked for a tour operator, which has since gone out of business. When they would have extra seats, I would go to Rome or Greece for the weekend, or the Tulip Festival in Amsterdam. I also worked for a Swiss tour operator based in Zurich, and I traveled around Switzerland in a rented car. Part of the deal was that I had to return the favor and bring back a 135-kg (300-pound) wheel of cheese, because every January they attended a fair

for travel agents to promote their new brochures and tours. So they had a Swiss or French restaurant that had those huge freezers, and I would wheel the cheese right in there. There is always a catch, but the duty I had to pay was like three dollars.

RP: What did you do in Norway?

DJ: I lived there for two years, learned the language, and then I got a job as a switchboard operator at a hotel that mostly had Scandinavian business-people. The only reason that I moved there is because it was kind of a challenge; they had never had a female receptionist, and I wanted to prove that that would work. Then I moved to the fjords and met my late husband. He was making a movie for Disney. I am from Canada and had no intention of ever crossing the border, but this is the way it ended up. He was a UCLA alumnus, and I am now proud to be a UCLA graduate.

RP: That is wonderful. Do you have a favorite place that you visited?

DJ: That is difficult to say, because many times when you travel, you meet people and they become the reason that you want to go back. I will never forget the Maldives, where I went years ago, but I am no longer really a beach person. I tend to go back to Africa a lot because I like animals (Figure 2); Namibia, Kenya, Tanzania, Botswana, Zambia, Zimbabwe, Cape Town. But I like the Lake Titicaca region in Peru too.

RP: Speaking of travel, I know that you went on the Director's Council trip to Italy with director Willeke Wendrich. Could you talk a little about what you did there?

DJ: The first week we were in Turin. Hans Barnard was with us for a few days before he started his field school. We went to Museo Egizio, where we were treated to a tour by director Christian Greco, who lectured at UCLA in February. That was really fascinating; it was a highlight of the trip. Everyone looked forward to that. We went to Venaria Reale outside Turin and got to see the conservation department there, which is not usually open to the public. That was also very interesting. Then we went to Rome for a week. The only problem was that the temperatures were very high and we clocked five to seven miles a day, but it was beautiful. We went behind the scenes of everything. In Rome we met Stella Nair, whom I had never seen before. She was with us most of the time, as was Kevin Dicus, director of research at Pompeii. He used to study the Etruscans, and I said, "It is interesting that you studied the Etruscans. Do you know the village of Tolfa, north of Rome? My Norwegian roommate lives there now." And he said,

"It is such a small place. What is her name?" When I told him, he goes, "Oh, but I know her!"

RP: That is great! Do you have a favorite memory from the trip?

DJ: Probably the Egyptian museum. Yes, I think that would be it. And everything else I said. I really liked Turin, which is kind of off the beaten track, which it should not be. I really liked it.

RP: What sort of Cotsen events have you attended?

DJ: I went to several lectures and social events. I have also been to Willeke's penthouse for a wine tasting with Christian Greco, but I do not know if that counts.

RP: Where do you think the Cotsen Institute could grow?

DJ: I think it might be a good idea to have more interaction between graduate students and donors; perhaps more social events. I know time is an issue for graduate students because we use a lot of them at the Mildred Mathias Botanical Gardens—where I volunteer—and we always have to kind of work around their schedules.

RP: Could you talk a little bit about the article that you brought with you?

DJ: This article was printed in November 2015, when I gave a contribution to Anthropology for graduate student travel to conferences. They were asking me about my experiences. They know I returned to school when I was 55, which was probably the best thing I ever did. I think my major was the best thing too. Anthropology just makes me happy.

RP: Would you like to add anything else about the time before you came to UCLA?

DJ: I was in the travel business for quite a few years, and then I worked for the chief technology officer of Citicorp—their research and development department—for several years. But travel has always been in my blood. When I was doing anthropology, before e-mail was an everyday event, people would say, "We used to get postcards from everywhere in the world from you; we never get them anymore!" To which I responded, "Yes, that is because I am doing an essay every weekend." When I worked for that Swiss tour operator, we would arrange tours for UCLA. When they needed more visas, I went to Beijing to get those. Little did I know that in my future, UCLA would be on my plate.



An Interview with Associate Professor Stella Nair

Robyn Price

STELLA NAIR, WHOSE RESEARCH focuses largely on the built environment of the Inca Empire, has just returned from a year in Rome as a Charles K. Williams II Rome Prize Fellow. Having trained as both an architect and an architectural historian, Nair has a unique perspective on the construction of the past. She is an associate professor of art history and core faculty with both the Cotsen Institute of Archaeology and the Center for 17th- and 18th-Century Studies at UCLA.

Robyn Price: First of all, I would like to congratulate you on receiving both the Charles K. Williams II Rome Prize and a John Simon Guggenheim Fellowship. Could you start by telling me a little about your current work?

Stella Nair: Thank you! And I am happy to talk about my new projects. The fellowships are separate book projects. I was at the American Academy in Rome this past year to look at the ways in which ideas of ancient Rome influenced how colonial-period writers wrote about the Incas. The historian Sabine MacCormack wrote an important book about the impact ancient Rome had on Europeans in the early modern period and how they understood cultures in the Americas. MacCormack mentioned architecture, but that was not the focus of her study, and this is what my project is about. When Europeans rediscovered ancient Rome in the fifteenth century, they



Figure 1. Stella Nair, associate professor of art history and core faculty with both the Cotsen Institute of Archaeology and the Center for 17th- and 18th-Century Studies.

began exploring Roman history, politics, literature, and architecture in earnest, often creating detailed drawings of the remains they could see. Hence ancient Rome was on the minds of a lot of Europeans when they came to the Americas. Ancient Rome became a very useful lens for Europeans to see and understand what and who they encountered in the Americas. So for me to understand the Inca Empire, I realized that I had to understand ancient Rome—in particular how early modern writers understood it. That is why I went to Rome.

While I was there, I learned about more exchanges between Rome and the Andes in the early modern period. Many Italians went to the Andes in the colonial period, but also people and things from the Americas went to Rome, like seeds, plants, and art. I began tracing these exchanges, and they were added to my project. For example, I began tracing the specific sources of the gold used in the ceiling of some mag-

nificent Roman churches to what are now Panama and Peru. I have much more research to do on the project, but I am excited about how it is developing and will end up as a book. The staff and resources at the American Academy in Rome made this project possible.

The Guggenheim project is completely different from the Rome project. For this, I am examining the spaces of women in Inca architecture. Most of us who write about Inca architecture have focused on the spaces that men occupy, leaving female spaces relatively unexplored. I have done this myself. By contrast, ethnohistorians and literary scholars have used the colonial writings to show the ways in which women played important roles in the Inca Empire. I will be using written sources, along with surviving architectural remains, to explore where women were educated, what sort of shrines they occupied, where they worked, and where they lived. I will look at a wide variety of women, from the queen (*coya*) to servants. The latter is of particular interest, as the spaces they occupied could be wide-ranging. For example, we tend to think of elite spaces as places where others were excluded, but elites were almost always accompanied by servants, so some servants could enter almost every space. My project requires me to do a lot of traveling to see sites across the Andes, as well as examine related archives and museum collections, from Spain and Germany to Peru. The flexibility and support of the Guggenheim Foundation is critical to me being able to undertake this research.

RP: Any advice on applying for grants?

SN: Do not lose heart! It can be very frustrating. I apply for grants and always expect to be rejected, but eventually you get one and that is wonderful. Honestly, I did not expect to get either this time. I was very surprised and feel so honored. Having the support of these grants has radically opened up and transformed my research. I think the best advice I can give to graduate students writing grants is to change one's mindset about applying for grants. If you apply and stake all your hope on getting one or two grants, you are likely going to be very disappointed, as most people get rejected. But if you embrace the process and realize that you will learn a lot by applying, it makes the process positive and beneficial, regardless of the outcome. Writing a grant is a wonderful way to crystalize your thinking, but it takes a lot of time and struggle to get to the end game. I find that graduate students usually far underestimate the time it takes to write a grant proposal and the amount of feedback and revisions they need to do in order to get their ideas solidly worked out and clearly explained. You need to share

your drafts with your friends—many, many, many times—and do multiple revisions over months before you send it to your advisor. This process of debate and revisions is intense but eye-opening. So grant writing really challenges you intellectually. Having a lot of time to work on a grant proposal is important. Some people work on one for a few weeks and then go, “Oh, it is perfect,” only to be crushed when it is rejected. But when they pick up that same proposal the next year to start revisions, they usually see the problems with it. So you really need time between drafts and feedback, time to put it aside so you can look at it later with fresh eyes. That will enable you to clearly think through your arguments and see the flaws. Even when I have not gotten grants, which is many, many times, writing the proposals was a great thing to do, as it really improved and moved my projects forward. We need the support of grants and fellowships to do our work, but grant writing is an excellent intellectual exercise that can transform your work.

RP: How did you get interested in Inca architecture?

SN: It was almost by accident. My undergraduate degree is in European history. I really loved history, but I was also interested in architecture. After I finished my history degree, Cornell University had this wonderful but intensive summer architecture program. The reputation was that by the end, you either loved architecture and wanted to devote your life to it or you hated it and never wanted to see anything related to buildings again. I did it and fell completely in love. I wanted to be an architect and applied for professional M.Arch programs. One of the reasons I chose UC Berkeley was they had a lot of history of architecture classes, and I loved history and did not want to give it up completely. While I was doing the required course work, I took an architecture history class, and one day we covered the Incas. I ended up writing my term paper on Machu Picchu and that got me intrigued. There was an Inca architect specialist in the department, the only architecture program in the United States that had one, and I took more classes with him and with two Andean archaeologists in the Anthropology Department. Every class I took, I became more and more fascinated by Inca architecture. It was the perfect combination of my interests: architecture and history. After I finished my M.Arch degree, I stayed in the Architecture School in Berkeley and got my PhD in architecture with a minor in archaeology. My dissertation was on an Inca royal estate. If I had not gone to study architecture at Berkeley, I do not think I would have found my passion!



Figure 2. Stella's studio in the American Academy in Rome.

RP: Are you happy to have ended up in an archaeology program?

SN: Yes. My appointment is in the art history program, which has been an excellent and stimulating intellectual community. They are very open to the study of a variety of materials across time and space. So to be in art history and the Cotsen Institute of Archaeology, where you have got so many incredible scholars from different departments on campus, who bring in new perspectives, is exciting. I think this is one of the great strengths of UCLA.

RP: Do you have any childhood memories of first falling in love with history and architecture?

SN: Many. My dad was in the navy, so we moved around a lot. One of the great things about the navy is the bases are almost always port cities, so we lived in some beautiful parts of the world with some amazing architecture. At one point my dad worked for NATO in southern Italy, which ended up being a relatively long stay during my formative years. My brother and I would play around in ancient Roman ruins all the time, and I think that made me fall in love with stone architecture and develop a curiosity for damaged structures. In a way, I suppose I am not too different from the Spanish who came over and were thinking about ancient Rome when they saw the Incas. My specialty is stone construction technology, and I have studied stone carving techniques in Tiahuanaco, in the south-central Andes, for my M.Arch at UC Berkeley. Hence when I was in Rome this past year, I could not help but be captivated by ancient Rome stone construction.

RP: Could you tell me a little about your positions at UCLA?

SN: I am an associate professor in the Department of Art History and core faculty in the Cotsen Institute of Archaeology. I am also affiliated faculty with the Interdepartmental Program in American Indian Studies and the American Indian Studies Center. I feel so lucky to be part of these communities and am constantly learning from my incredible colleagues, who are doing profoundly important work in Los Angeles and across the country. I am also core faculty in the Center for 17th- and 18th-Century Studies, and I am affiliated faculty in the Latin American Institute. As for classes, I teach broadly on the indigenous arts of the Americas. My focus of research is in the south-central Andes, such as Peru and Bolivia. I teach courses across the curriculum. For example, I teach a very large undergraduate general education course, which covers some of the major urban centers across the Americas. We study the art and architecture of these cities, starting in North America at places like Watson Brake and Cahokia, down to what is now Chile and Argentina. I teach upper-level undergraduate courses on cities in Latin America from the colonial to modern periods, as well as undergraduate and graduate seminars on indigenous art, architecture, and urbanism in the Americas, from ancient to modern times. I advise doctoral students in both art history and archaeology. One of the truly great things about UCLA is the interdisciplinary opportunities on campus.

RP: Those are quite a few positions. Could you

also mention something about the Indigenous Material and Visual Culture reading group?

SN: Sure. It is something Kevin Terraciano and I started. Kevin is a very renowned historian of colonial Mexico, as well as a great person to work with. When we realized we had overlapping interests, as did a lot of our students, we decided to put together this group. The focus is on the graduate students, and it provides a venue for them to get to know each other, to share their research interests and works in progress. They can also invite visiting scholars to give lectures and share papers. The reading group empowers the students to develop their shared interests and take charge of the learning process. All interested students and faculty are invited. You do not have to work in the Americas to participate. The group is sponsored by the Center for 17th- and 18th-Century Studies, which lists information about the group and the contact information for the two coleaders.

RP: Having worked in a variety of places, such as Bolivia, Mexico, Peru, and the United States, could you share a little about your experiences in fieldwork?

SN: Certainly, but there are too many to describe, so I can only share a few. My first field project was in Mexico, at Monte Alban in Oaxaca, which was idyllic. There is beautiful weather, architecture, art, not to mention delicious foods. There was a bus that would take us to the top of Monte Alban every day, from where we had exquisite views of the surrounding valleys. There was an impressive community of scholars working there. Marcus Winter was the director of a large project, so we would have these stimulating gatherings at lunch, talking about our research. My next fieldwork was in high-desert planes of Bolivia, a stunning landscape with fascinating architecture, but the high altitude makes it much harder to move about, much less work. I studied the architecture at Tiahuanaco, which is a fascinating site that played a major role in the development of Andean history. The stone carving there is some of the finest made anywhere in the world by hand. The site is set in the midst of snow-capped mountain peaks, an incredible landscape everyone should see once in their lifetime. But landing in the capital city of La Paz, at approximately 12,000 feet above sea level, is hard. The thin air makes it difficult to breathe. I read that it is like losing about 40 percent lung capacity when you get off the plane.

I have also worked much closer to home. I collaborated with a scholar in Michigan, looking at earthen architecture in the eastern half of the United States, which is everything east of the Mississippi River. We drove all around Louisiana, Alabama, Mississippi,

Ohio, Illinois, and Missouri looking at sites. It was really amazing to have the chance to explore this part of our country. We not only wanted to study the architecture, but we were also interested in learning under whose protection the sites were, or not, and whether American Indian communities had rights or access to their ancestral lands and buildings. The sad truth is there is very little legal protection for a lot of heritage landscapes, and most American Indian groups have little to no access to their ancestral lands. This needs to be changed. My primary work may be in the Andes, but these larger issues of indigenous ownership of and access to their heritage sites and their current lack of legal recourse is so important. It is a problem that indigenous peoples face across the Americas.

RP: Does collaboration figure prominently in your work?

SN: Very much. I love collaborating. There are very few trained architects and architectural historians who work on Native American design and construction. It is a shame because the training to be an architect or architectural historian is critical if one wants to really understand the design, construction, and modification of buildings over time. I was lucky to study architecture at UC Berkeley, which had a very vibrant and globally focused history program in the Architecture School. Many architecture schools are downsizing their history sections, and it is a great loss to the training of future architects, as well as architectural history as a discipline.

By comparison, Andean anthropology and archaeology are robust and dynamic disciplines, and it has been great to collaborate with scholars from both fields on many projects. In addition, colonial Latin American history and literature are rapidly growing fields and changing how we think about the colonial period, in particular the vibrant role of native peoples. I have been fortunate to work with scholars from each of these fields. These interdisciplinary interactions can be hard at first, as it is scary leaving the safety of one's own discipline and its knowledge base. But it is intellectually very healthy. When we step outside our own fields, we can see how every discipline has blinders. Hence interdisciplinary collaboration is critical to challenging one's perceptions, methods, and theoretical framework. It also sharpens you because you have to articulate why your field does a certain thing that way.

RP: Slightly shifting gears, I know you met up with the Director's Council trip to Italy when they came to Rome. What were some of the highlights?

SN: Oh, I love Rome. What a magical city. I still cannot believe I was so lucky to live in Rome for



Figure 3. Stella in the Forum Romanum.

a year. It is a fascinating city, especially if you love architecture, as every block has something incredible to see. Many tourists only see the major monuments, so they miss out on all the rest that Rome has to show, which is what was especially nice about the Director's Council trip. They could see and explore some of these hidden gems. Willeke took the group first to Turin and then joined Line Cecile Engh, a medieval Romanist, and me for the second half of the tour. So we had an Egyptologist, an Inca specialist, and a medieval Romanist exploring Rome with the Director's Council. Rome is such a complex and fascinating city, and the three of us would look at something and get excited for very different reasons, and only in the following conversation did we realize the overlapping significance of our interests. It was great to have these conversations with the Director's Council. Their enthusiasm and insightful questions were refreshing. I do not think this type of exchange and conversation could happen anywhere else. I also got to hear more about Willeke's vision for the Cotsen Institute, and it is brilliant. We are so fortunate to have her as our new director.

RP: Do you have any advice you would like to offer graduate students?

SN: Sometimes we try and choose topics for an

intellectual reason, and that is important, as you want to have a theoretically grounded and methodologically sound project. But what some people forget is you have to be passionate about it. We sometimes feel uncomfortable about that because it is an emotion, but you are going to be basically married to your dissertation for six years, and then you are going to write a book about it, which may take another six years. Then you will be invited to give talks on that book, which will be several more years. That is a huge amount of time. It is going to be torture unless you truly love what you do and want to figure out the answers to your questions—a passion that keeps you up late at night and makes you happy working on it, even when you have had a bad day. You need to study something where you can sit down and read something and just be transported, day after day, year after year. In other words, always remember you have to follow where your passion leads you.



An Interview with Former Director Merrick Posnansky

Robyn Price

MERRICK POSNANSKY IS A RENOWNED Africanist and the former director of the Cotsen Institute of Archaeology at UCLA (1984–1987). His research ranges from British prehistory to the African diaspora. He has published more than 200 articles and has trained and mentored a generation of students from across the world. Still a resident of Los Angeles, he is a familiar face around the Cotsen Institute. I had the pleasure of speaking to him about his life and research.

Robyn Price: Could you discuss if and how collaboration has helped you with your research and enriched your life?

Merrick Posnansky: Oh yes. The last place in which I spent a lot of time was Hani, a village in Ghana, West Africa. There I enjoyed having a close friendship with the chief, who visited me a couple of times in the University of Ghana, Legon. We got on very well together. In 1975 I received what I felt was one of the greatest honors in all my life. I was made a wing chief of the village; so now I am Ahohohene of Hani. When I left Ghana, I said I should perhaps relinquish my position, but they said, “Oh no. You cannot do that. You have to either die or do something very wicked. That is the only way you can be released.” As I have not done anything really wicked and I have not died, I still am the Ahohohene of Hani.

RP: What sort of work were you doing in Ghana?

MP: I started by being interested in archaeology but quickly became much more interested in ethnoarchaeology. I explored farming and hunting and gathering techniques, the making of bark cloth, and all sorts of activities which are considered important things in

people’s lives. I became much more interested in being a cultural anthropologist than an archaeologist. I ran a series of field schools for students of the University of Ghana. As head of the Department of Archaeology, I used to require all our archaeology students at the undergraduate level to spend a minimum of three weeks of field training. For this, I had basically three main avenues that the students followed. They learned about surveying and the analysis of pottery; oral history—because for about 50 years I have been terribly interested in oral history, and I felt that lest you get to grips with people’s oral history, you cannot really understand the archaeology, because it gives you a framework—and ethnoarchaeology, which was basically about spatial relationships: where people live in the village, why people live in those places, where are shrines, why are shrines where they are, where do people go out to farm, why do they move, and so forth.

From there I became interested in things called farm shelters. Farm shelters are places where you have agriculture that is moving. What happens in Ghana and many tropical African countries is you farm a small area, a couple hectares at the most, and after about three years, when you have exhausted the fertility of the land, you rotate around and do not come back to the original place for around 15 years. By that time, the soil has replenished itself and you can start again. Where people farmed was often more than 3 miles from the village, so they would build a small shelter. They would have their luncheon there, rest in the heat of the day, or even process some of their food, like cassava or peppers, sometimes breaking pots.



Figure 1. Merrick in 2016, with Helle Girey, former student affairs officer and director of public programs, and Jim Sackett, former director of the Cotsen Institute.

After three years or so, your shelter would crumble down. What I noticed were bits of broken pots between sites, so I became interested in these scatters and linked them to this concept of farm shelters. The sites are where you had the villages, and the scatter of pots is where you had the farm shelters. This was one of the things I learned by living with the people.

I also learned about which tools were used in which seasons. One of my main criticisms of some of the people who went before me to West Africa was that they would go to the same area in the same season. I found that if you really wanted to find out what people were doing, you need to go there in different seasons to experience life throughout the year. This is something I tried to do, to be with the people not just during one season. When I first came to West Africa, all excavations were done in the dry season, from November to the end of February, because in the summer, people went back to England and enjoyed their fish and chips or whatever. They would come back in September or October to begin the year. I found the best season to excavate was July through September because that was the time just after the monsoon rains, when it was still cool and the ground not too hard. Then came the yam harvest, so you arrived in the time of the year that people like best, when they are coming into their new crops.

RP: How did you originally get interested in archaeology and in Africa?



Figure 2. Merrick in the field around 1954 while pursuing his doctorate at the University of Nottingham.



Figure 3. Merrick teaches surveying in Begho, Ghana, August 1970.

MP: Since before I went to college, I have been an inveterate collector. I still collect stamps and coins to a certain extent. In Ghana I collected gold weights, which were for weighing gold until about 1898. Growing up, I used to follow around these great big trucks that would collect the muck out of the drains. I was fascinated that they would pick up coins and things like that, and I suppose that is what got me interested in coin collecting. When I was in high school, I joined the numismatic society of Manchester, near where I lived. When I was about fifteen I presented a paper on the coin reforms of Solon, which was the first paper I ever gave. At another of these meetings, Harold Mattingly, keeper of Roman coins at the British Museum, gave a talk. I remember going up to him and telling him that I wanted to be a numismatic keeper when I grew up. He said, “Hard luck. The only professional job in Britain at present is mine, and I am not giving it up. What you should do is concentrate on museums or archaeology.” So I became interested in archaeology. I enrolled in the University of Nottingham and started an archaeology society.

I think it was the very first archaeology society in Britain at the time. We excavated a medieval tile kiln, a Cistercian priory, and then a well. After going down about 10 m (30 feet), I was about the only person who would go down the well. Practically all I was finding were cat bones, because in the 1300s people were killing their cats in wells.

I went on as many excavations as I possibly could. I remember going on a famous dig of a Roman villa in a place called Somerton in Somerset. Because I had done history of geography in college and knew how to survey, I became the surveyor there. When we started an archaeology society, our first speaker was Graham Clark, a professor of archaeology at Cambridge University, and he asked me, “What are you going to do when you finish?” I responded, “What I want to do is something like historical archaeology.” What I had in mind was looking at a Cistercian priory in Lincolnshire. I intended to do the history by reading the Latin manuscripts, as I had done Latin for nine years, and combine this with archaeology. He said, “No, do not do that. Come to Cambridge and learn about archaeology properly.” Later he invited me to come, and I went to Peterhouse, Cambridge. I finished with what was then called a diploma in prehistoric archaeology—now this would be an MPhil—and became a Stone Age archaeologist. Back in Nottingham, I was offered a scholarship to work on the northernmost extension of the Stone Age in Europe. I studied in great detail around 250 worn-out stone tools, mostly found in gravel pits, to work out a chronology based on Pleistocene geology.

When it came to looking for jobs, there were not many in Britain, and the only place you could get jobs was in what we called “the colonies.” I went to Kenya to be a warden of the prehistoric sites of the royal national parks of Kenya. Then I decided I did not like Stone Age archaeology and was more of a historian than an archaeologist. I did not like measuring the length and breadth of stone tools, which was what people were doing. They were doing a lot of statistical analysis, but they were not finding out much about human behavior. There was a big change that came about in the early 1960s, when radiocarbon and potassium-argon dating became available. Instead of digging holes to get at a stratigraphic sequence of pottery, people began to do what I call horizontal archaeology and became more interested in behavior than in statistics. I was in Africa for 20 years, and when people would ask what I was, I did not say that I was an archaeologist but that I was an Africanist. I still think of myself as an Africanist.



Figure 4. Merrick and his family (bottom left), together with staff from the University of Ghana and volunteers from the Brathay Exploration Group, meet Chief Nana Faibill III, Apintohene before the Fort Ruychaver excavation in southwest Ghana, December 1975.

RP: You have made some major moves in your lifetime, from Britain to Africa and on to the United States. Did these transitions feel significant or difficult as they were happening?

MP: Not really. For instance, when I was in West Africa, particularly in Ghana along the coast, there were about 70 forts and castles dealing in trade with Europe between 1482 and the nineteenth century. Many of these were used for the slave trade, and this led to the question: Where did all those slaves go? To the Caribbean, to Brazil, and to North America. When I went to the United States, I was already interested in historical archaeology, and when some of my students began working in the Caribbean, I insisted that one should not look at the African diaspora in West Africa and in the Caribbean independently but rather as a holistic whole. Before I went to the Caribbean, people used to say that with slavery, slaves lost their language, lost their culture, and peoples were mixed. This means that you provide a new identity for them, and scholars more or less dismissed the African side of slavery. What people with experience in West Africa began to discover was the Africanness of the slaves in the New World.

RP: Do you have any suggestions or advice for

future archaeologists?

MP: I think that it is very important that you have local cooperation. Together with the local population, you are seeking knowledge about the ancestors. Local people may pour libations to the ancestors so that they can know their will, while archaeologists are trying to find out how the ancestors lived by doing excavations. It is important that archaeologists work with the locals because they can tell you where the ancestors lived. In the end, you form a team that knows the language, the history, and crafts that may have continued through the years. I regard one of my mentors, Sir Mortimer Wheeler, whom I met late in his life, a very great man. Mortimer Wheeler was director of the Institute of Archaeology in London and, after he retired remained professor of what was then called “Rome beyond the imperial frontiers.” He was interested in the worldwide aspect of the Roman Empire and what you could find out with archaeology. One of the greatest books that he wrote is *Flames over Persepolis*, in which he showed how Alexander the Great brought Greek culture to Iran and India. Mortimer Wheeler helped to expand the British Schools of Archaeology and founded new branches in Persia and East Africa. I was assistant director of the latter for a while. One

of the things Wheeler used to say to young archaeologists was, “If you want to make a name for yourself, go after the more important places, because it is the important places that created a civilization and it is where you find material. Do not be a hanger-on at someone else’s excavation, taking up bits which you can write up. Branch out and make your own name.” In other words, if you want to know about the British Iron Age, do not go to a small hill fort which may not be terribly important, but go to the biggest hill fort that you can find. This is something I have always been interested in. My students were not working on little crumbs that I gave them to work on—although I now wish that I did, because it would have made writing up my research so much easier—but I instead encouraged them to make a name for themselves.

RP: You have been at the Cotsen Institute since the beginning. How have you seen it develop and where do you see it going?

MP: I think it is going great. One proven aphorism is “Nothing succeeds like success.” It was only after the late Mr. Cotsen endowed the Institute of Archaeology that everything really got started. Success breeds success. When I was director from 1984 to the end of 1987, we had a budget of \$40,000, which we thought was a lot at the time. We had to buy our first computer, and in those days computers did cost a lot of money. I remember that the first computer we bought was \$8,000, which was less powerful than the cell phone being used to record this conversation. In 1987 a committee reviewed the Institute of Archaeology to see whether it was worth saving, and we made a very good argument, so it was decided to continue. We had done various things, one of which was starting *Backdirt*. It was in black and white and had 16 pages at most. The other thing we were terribly cognizant of was that we should involve the local community, so we tried to expand the Friends of Archaeology. At the time, this support group was divided into fellows, with whom we used to meet and have dinners, and friends, mainly schoolteachers and so on. I changed it into one big organization. We tried to make it more embracing, and we got many more volunteers to do things, which I felt was very important. The other thing is, I was very cognizant of something that was very important in the BBC: “We give you the world rather than what you want to hear.” When I came to the institute, the public lectures were on things that were relatively familiar, such as the Mayans, Egyptology, archaeometry. One of the things that I believed in was that we should try to tell our public about things they did not know. So we initiated lectures on Aus-

tralia, on the Pacific, on Central Asia, and all sorts of other things which people did not know much about. The idea was to spread the knowledge of archaeology from our narrow base to a much broader footing. I went overboard, and in our first year we had 42 public lectures and seminars. Among the residue of this are the weekly Pizza Talks.

RP: Any concluding remarks?

MP: Archaeology at UCLA has changed drastically. Had you come here in the late 1970s, we had a vigorous archaeology program. We had 20 students doing archaeology for an MA, which was our main degree. Many of the people we attracted tended to be women over 40 years of age, who would earn their PhDs when they reached 50. My successor, Tim Earle, decided that we should only admit outstanding students to do a PhD and not offer an MA any longer. Now this PhD program is one of the best in the United States. That is one of the big changes that has taken place in the last 30 years, and I think it is something that has worked. Everything has become much more professional. In those days we had two public resources. One was the archaeological survey, which provided the field training on Californian sites for many of the students. The survey was doing mainly rescue archaeology, and it used to bring in half a million dollars a year. The other thing was our dating laboratory. I think that we have grown in stature because we could abandon these activities and instead put emphasis on training professional archaeologists at the highest level.

OBITUARY

Ivor Noël Hume OBE (1927–2017)

Merrick Posnansky

IVOR NÖEL HUME WAS ONE OF THE three most significant historical archaeologists in twentieth-century America, the others being Stanley South and James Deetz. Deetz died on November 25, 2000 (*Backdirt* Spring/Summer 2001, p. 10), and South died on March 20, 2016 (*Historical Archaeology* 50[4]:1-6).

Nöel Hume, as he preferred to be called, had a career in both England and the United States. His fame largely came from his work as chief archaeologist at Colonial Williamsburg from 1957 to 1988, but his achievements can only be understood by looking at his early work in England. He began his career as a stage manager, a beginning that explains both his role as a “gifted communicator”¹ for Colonial Williamsburg and his fantastic ability to expand on the American history of the seventeenth and eighteenth centuries provided by documentary historians. He accomplished this by writing seven major books, many of which came out in several editions, and transformative lectures. One early reviewer wrote, “Nöel Hume has the light touch of an English stylist and a sense of humor which prevents his archaeology from ever being tedious.”² Nöel Hume transformed Colonial Williamsburg from a park with building sites originating in the pre-1776 period to what is probably the best-known early American urban historical site, visited annually by large numbers of tourists from the United States and the rest of the world. He was a tireless excavator and brought history to life in meticulous reconstructions of the public houses and eateries of Williamsburg, its windmill, the



Ivor Noël Hume in front of the Anderson House in Colonial Williamsburg, 1984.

governor’s house—where Thomas Jefferson once presided—and, most importantly, the African American component of its population. He excavated 10 major sites at Williamsburg, including one of the first forts in early colonial Virginia.

Nöel Hume was a discerning historian and made use of every historical account he could find. More than that, he used his knowledge of the artifacts he had studied at the Guildhall Museum (now the London Museum), where he was curator from 1949 to 1955. Before others were aware of the tidal treasures, he went virtually daily to examine artifacts washed up during the ebb and flow of the Thames. Many of the objects were similar to what he was finding at Colonial Williamsburg. His *Guide to Artifacts of Colonial America*, with its 100 figures and photographic plates, first published in 1969, became the key handbook for historical archaeologists trying to date sites from the seventeenth and eighteenth centuries. In the same year he also published *Historical Archaeology*, the first real textbook for the discipline, a book reprinted many times and termed by the publisher, the Norton Library, as “a book that will live rather than last for a single season.” He and his wife and key collaborator, Audrey, wrote many small handbooks on different artifact categories from Williamsburg.

1. W. Sullivan in *Making History*, the news blog for Colonial Williamsburg.

2. From the back cover of the University of Virginia Press 1994 edition of his 1963 *Here Lies Virginia*, quoted from a review in *The Atlantic*.

He was one of the founding fathers of the Society for Historical Archaeology in 1967. His most acclaimed book, and possibly the most readable and significant book on historical archaeology, *Martin's Hundred*, first appeared in 1979 and describes the Martin's Hundred fort at Carter's Grove Plantation in Virginia. Noël Hume places the fort in both a historical and a geographical perspective, using many different sources to reconstruct the brief life of the fort, which ended with an Indian attack in 1622. He describes the problems of reconstruction and presenting the fort to the public without going too far in conjectural presentation. The book provides a masterly survey of the work of historical archaeologists and describes how to use archaeological and other evidence to create a historical reconstruction of a previously little-known episode in early American history.

After he retired from Williamsburg, Noël Hume helped bring alive the early days of Jamestown, the first English settlement in Virginia. He also provided key evidence, including finding its fort, of the short-lived (1584–1586) settlement on Roanoke Island in North Carolina associated with Sir Walter Raleigh. Possibly his greatest contribution to historical archaeology was his extensive publicizing of the discipline in major universities in the United States and his mentorship of the historical archaeologists who succeeded him. In 1985 he was a Regent's Professor at UCLA. He gave several outstanding lectures that featured his by then legendary method of presentation using three projectors, with fade-outs between images that enabled him to show as many as 300 slides. He visited UCLA on two later occasions. On a personal level, many of us profited from his skills as a raconteur and his approachability. He interacted with the Friends of Archaeology and addressed them at a dinner gathering. He met with students and stimulated the study of historical archaeology, which resulted in UCLA becoming one of the major centers of the discipline, with two annual classes of more than 70 students drawn from both anthropology and history. He generously founded the Ivor Noël Hume Fund for Historical Archaeology, which supported both excavations and travel by UCLA's growing number of historical archaeology students. This was the first major donation to the then Institute of Archaeology, predating donations by Lloyd Cotsen.

While at UCLA, Noël Hume visited Guadeloupe Dunes east of Santa Barbara, the site of the 1923 reconstructions of ancient Egyptian sites that appeared in Cecil B. DeMille's *The Ten Commandments*. Though he did not excavate the site, where more than

1,000 laborers had created huge representations of ancient Egypt, he wrote an essay entitled "Yes, But Is It Archaeology?" for the *UCLA Journal of New World Archaeology* in 1986. In this he argued that excavating relatively recent sites with good historical documentation provides convincing arguments that archaeologists ask questions that historians might not consider. In particular he felt that one could gain new insights by excavating the camps of the migrant labor force employed on the film project. This was the same period in which there was a lively discussion about whether there was any value in marine archaeologists excavating the 1912 wreck of *Titanic*.

In whatever Noël Hume embarked upon, he posed vital questions that had application for many different scenarios. He made several films of his work, some of which were shown at UCLA classes, and he regularly appeared on television. He will long be remembered for his elegance, eccentricities, communication skills, knowledge of both English and American archaeology, breadth of interests, and superb organizational skills. His organization of the Historical Archaeology Conference at Williamsburg in 1984 will be remembered as the coming of age of the discipline he helped to found and foster and also for some of the best excursions in which I have been lucky enough to participate.

Notes from the Editor in Chief

Aaron A. Burke

IN JULY 2016 I BEGAN work as editor in chief of the *Cotsen Press*, following the appointment of the new director, Willeke Wendrich, who had previously served in this capacity. It has been a delight to work with members of the editorial board, including the director, Randi Danforth (publications director), and area editors, during the past year. The 2016–2017 academic year witnessed the end of long terms on the editorial board by area editors Sarah Morris (Classical World), Lothar Von Falkenhausen (Asia), Charles Stanish (South America), and Jeanne Arnold (North America); the latter two retired in June 2017. The board extends our heartfelt thanks to them for their service, particularly for the open-ended terms of that service. Indeed, one of the changes we inaugurated stemmed from a need to define clear terms of service for board members that allowed both the member and the board to plan for regular service rotations. Such staggered terms for area editors are intended to provide greater stability to the constitution of the board and to facilitate a degree of planning as it seeks to fulfill its duties. To that end, since July 2017 the board is composed of seven members in various stages of three-year terms: Willeke Wendrich (Africa), Li Min (East Asia), John K. Papadopoulos (Mediterranean Basin), Gregson Schachner (North America–Southwest), Stella Nair (South America–Andes), Richard G. Lesure (South America–Mesoamerica), and Aaron A. Burke (West Asia–Near East).

Producing archaeological manuscripts is perhaps one of the most technically difficult types of publishing. As new types of data are introduced to archaeological reporting, often reflecting new and expanded fields of study (such as residue analysis or remote sensing), presses must determine what styles and standards most effectively present the data while leaving room for authorial liberties. Consequently, the editorial board regularly seeks the input of outside reviewers, as well as input from its own members. Such concerns have contributed to integration of a manuscript review by the director of the Digital Archaeology Laboratory, Deidre Whitmore. Her reviews address the possibility and feasibility of the presentation of certain types of data in digital form, as a supplement to the presentation that is standard for the typical archaeological report. The face of archaeological publishing is changing before our eyes, and new manuscripts present expanded possibilities for the presentation of data that move beyond the limits of traditional paper formats. We are delighted to receive suggestions about how contributors envision digital publication of their archaeological data in the years ahead.

I would like to end by thanking all members of the editorial board for their efforts in the successful publication of a number of volumes during the past year.

FROM THE PUBLISHER'S DESK

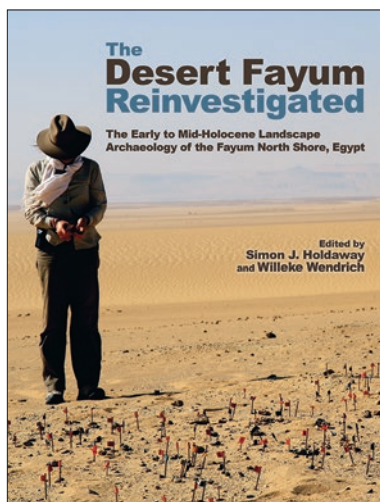
OUR BOOKS THIS YEAR and next provide a wealth of archaeological data that emanates from a vast global range: from the South Pacific island of Tangatatau and the Fayum region in Egypt during the Neolithic to ancient Israel; then next spring to multiple regions where colonialist powers have long engaged in cultural imperialism with complex results. Finally, we offer a comprehensive volume that provides an excellent collection of scholars who analyze and explore iconographic elements of the prehistoric southern Andean region. Publishing unique, exciting, and significant books about every geographic corner of the world continues to be a priority for the Cotsen Institute of Archaeology Press.

Our site report volumes (and others) are complemented with an online repository, where searchable databases are available to researchers who want to take a closer look at subjects. Deidre Whitmore, director of the Digital Archaeology Laboratory, analyzes and facilitates this component of our publishing, which grows ever more essential to cutting-edge scholarly endeavors.

— *Randi Danforth*

Ordering Information:

Cotsen Institute of Archaeology Press books in print are distributed by the University of New Mexico Press: unmpress.com, 800-249-7737. They are also sold through our publications office; contact ioapubs@ucla.edu. Our recent titles are also available as eBooks, on Amazon.com. Our complete online catalogue can be found at www.ioa.ucla.edu/press/online-catalog.

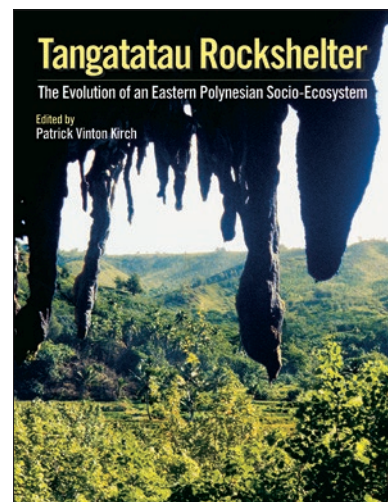


The Desert Fayum Reinvestigated

The Early to Mid-Holocene Landscape Archaeology of the Fayum North Shore, Egypt

Edited by Simon J. Holdaway and Willeke Wendrich

The Neolithic is thought to have arrived in Egypt via diffusion from an origin in southwest Asia, relatively late compared to neighboring locations. The authors suggest an alternative approach to understanding the development of food production in Egypt based on the results of new fieldwork in the Fayum, providing the results of a detailed study of the Fayum archaeological landscape interpretable at different temporal and spatial scales using an expanded version of low-level food production to organize observations concerning paleoenvironment, socioeconomy, settlement, and mobility. While domestic plants and animals were indeed introduced from elsewhere, when a number of aspects of the archaeological record are compared, a settlement system is suggested that has no obvious analogues with the Neolithic in southwest Asia. The results obtained from the Fayum are used to assess other contemporary sites in Egypt.

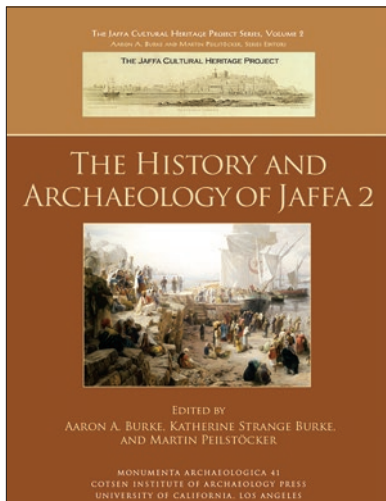


Tangatatau Rockshelter

The Evolution of an Eastern Polynesian Socio-Ecosystem

Edited by Patrick Vinton Kirch

Tangatatau Rockshelter on Mangaia Island in the Southern Cook Islands, excavated by a multi-disciplinary team in 1989–1991, produced one of the richest stratigraphic sequences of artifacts, faunal assemblages, and archaeobotanical materials in Eastern Polynesia. More than 70 radiocarbon dates provide a tight chronology from AD 1000 to European contact in about 1800. The faunal assemblage provides compelling evidence for dramatic reductions in indigenous bird life following Polynesian colonization, one of the best documented cases for human-induced impacts on island biota. Tangatatau is unique among Polynesian archaeological sites in the extent to which fishing was dominated by freshwater fishes and eels. The site also yielded an extensive suite of carbonized plant materials, including sweet potato tubers, demonstrating that this South American domesticate had reached Eastern Polynesia by AD 1400. Mangaia illustrates the often far-reaching consequences of human land use and resource exploitation on small and vulnerable islands.



The History and Archaeology of Jaffa 2

Edited by Aaron A. Burke, Katherine Strange Burke, and Martin Peilstöcker

Since 2007, the Jaffa Cultural Heritage Project has endeavored to bring to light the vast archaeological and historical record of the site of Jaffa in Israel. Continuing the effort begun with *The History and Archaeology of Jaffa 1*, this volume is a collection of independent studies and final reports on smaller excavations that do not require individual book-length treatments. These include: overviews of archaeological research in Jaffa, historical and archaeological studies of Medieval and Ottoman Jaffa, reports on excavations by the Israel Antiquities Authority at both the Postal Compound between 2009 and 2011 and at the Armenian Compound in 2006 and 2007, and studies of the excavations of Jacob Kaplan and Haya Ritter-Kaplan in Jaffa on behalf of the Israel Department of Antiquities and Museums from 1955 to 1974.

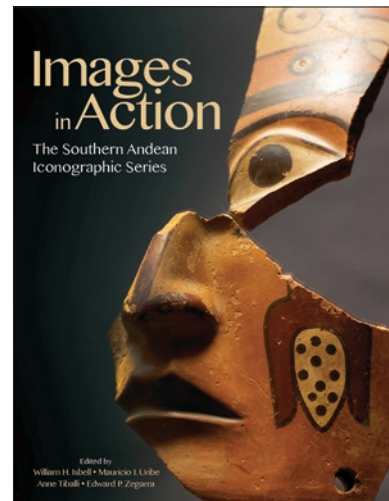


Unmasking Ideology in Imperial and Colonial Archaeology

Vocabulary, Symbols, and Legacy

Edited by Bonnie Effros and Guolong Lai

This volume addresses the entanglement between archaeology, imperialism, colonialism, capitalism, and war. Popular sentiment in the West has tended to embrace the adventure rather than ponder the legacy of archaeological explorers; allegations by imperial powers of “discovering” archaeological sites or “saving” world heritage from neglect or destruction have often provided the pretext for expanding political influence. Consequently, citizens often fell victim to the imperial war machine, while seeing their lands confiscated, artifacts looted, and the ancient remains in their midst commercialized. Spanning the globe with case studies from East Asia, Siberia, Australia, North and South America, Europe, and Africa, sixteen contributions written by archaeologists, art historians, and historians from four continents offer unusual breadth and depth in the assessment of various facets of claims to patrimonial heritage in the context of imperial and colonial ventures of the last two centuries, and their post-colonial legacy.



Images in Action

The Southern Andean Iconographic Series

Edited by William H. Isbell, Mauricio I. Uribe, Anne Tiballi, and Edward P. Zegarra

Images in Action presents interpretations of a large corpus of art and iconography from the Southern and South-Central Andes, bringing together some of the most esteemed scholars in the field. More than thirty authors, all with extensive experience in the Southern Andes, examine artifacts, artworks, textiles, archaeology and architecture to develop creative new insights on the cultural interactions between people in prehistoric western South America. The volume is complemented with nearly 700 color images archived in an online database with metadata, fully referenced in the text, and searchable.



Director's Council members of the Friends of Archaeology visit The Conservation and Restoration Center - La Venaria Reale, Turin, Italy, June 2017. Photograph by W. Wendrich.



Get Involved, Be a Friend!

FRIENDS OF ARCHAEOLOGY

Do you find yourself spending your vacations wandering among ruins and visiting archaeology museums across the globe? At the Cotsen Institute of Archaeology (CloA), there are ways to get involved in archaeological research in Los Angeles and beyond.

Join the Friends of Archaeology, the CloA's support group dedicated to sponsoring graduate student education, faculty research, publications, and many other initiatives.

As the archaeological program rated first in the nation, the CloA attracts top faculty and students, whose excellence thrives if they are given the means to develop new directions. Your support builds on the core tasks of the Institute, and enables the many groundbreaking initiatives, sophisticated theoretical approaches, innovative field research, and publications for which we are known.

For more information about membership benefits and events contact the FoA President Jill Siltan at jsiltan@ioa.ucla.edu.

	BASIC MEMBER \$300 minimum/1 person (\$225 tax deductible) \$500 minimum/2 persons (\$350 tax deductible)	DIRECTOR'S FELLOW \$1,000 minimum/1 person (\$775 tax deductible)** \$1,500 minimum/2 persons (\$1,050 tax deductible)**	DIRECTOR'S COUNCIL MEMBER \$5,000 minimum/1 person (\$4,775 tax deductible)** \$7,500 minimum/2 persons (\$7,050 tax deductible)**
NEWS	<ul style="list-style-type: none"> • <i>Backdirt</i> Annual Review Magazine • Email news about CloA • Public lectures and events 	<ul style="list-style-type: none"> • <i>Backdirt</i> Annual Review Magazine • Email news about CloA • Public lectures and events 	<ul style="list-style-type: none"> • <i>Backdirt</i> Annual Review Magazine • Email news about CloA • Public lectures and events
EVENTS	<ul style="list-style-type: none"> • Invitations to private receptions (e.g., faculty book launches) • Invitation to one private dinner lecture with CloA faculty or affiliate at UCLA venue • Invitation to the CloA reception at the Society for American Archaeology Annual Meeting 	<p>All prior benefits plus</p> <ul style="list-style-type: none"> • Invitation to two additional private dinner lectures with CloA faculty or affiliate at UCLA venue • End-of-academic-year party with faculty and graduate students (June) 	<p>All prior benefits plus</p> <ul style="list-style-type: none"> • A reserved seat with your name at CloA public events • Exclusive salons or private meetings with distinguished guest speakers hosted by CloA faculty
TRAVEL and FIELD TRIPS	<ul style="list-style-type: none"> • Opportunity to attend annual field trip and/or museum excursions with CloA faculty 	<p>All prior benefits plus</p> <ul style="list-style-type: none"> • Opportunity to attend field trips and/or museum excursions with CloA faculty domestically or abroad 	<p>All prior benefits plus</p> <ul style="list-style-type: none"> • Opportunity to participate in customized tours of 7-20 days, including access to archaeological sites and behind the scenes museum visits. Tailored itineraries and services
DISCOUNTS	<ul style="list-style-type: none"> • 20% off CloA Press publications* 	<ul style="list-style-type: none"> • 30% off CloA Press publications* 	<ul style="list-style-type: none"> • 50% off CloA Press publications*
ACKNOWLEDGMENTS	<ul style="list-style-type: none"> • Acknowledgment in <i>Backdirt</i> Annual Review Magazine in print and online 	<ul style="list-style-type: none"> • Acknowledgment in <i>Backdirt</i> Annual Review Magazine in print and online 	<ul style="list-style-type: none"> • Acknowledgment in <i>Backdirt</i> Annual Review Magazine in print and online

*Contact Randi Danforth at cioapress@ioa.ucla.edu or (310) 206-9384 for CloA Press publication purchases.

**Eligible for Chancellor's Society benefits

Friends of Archaeology

MEMBERSHIP/RENEWAL FORM

MEMBERSHIP OPTIONS

- ☐ **Basic Membership** (minimum \$300 for 1 person or \$500 for 2 persons/year)
1 person (\$225 tax deductible), 2 persons (\$350 tax deductible)
- ☐ **Director's Fellow** (minimum \$1,000 for 1 person or \$1,500 for 2 persons/year)
1 person (\$775 tax deductible), 2 persons (\$1,050 tax deductible)
- ☐ **Director's Council** (minimum \$5,000 for 1 person or \$7,500 for 2 persons/year)
1 person (\$4,775 tax deductible), 2 persons (\$7,050 tax deductible)
- ☐ **Decline all benefits**

METHOD OF PAYMENT

Check: ☐ PLEASE MAKE CHECK PAYABLE TO: THE UCLA FOUNDATION

Credit Card: ☐ Visa ☐ MasterCard ☐ American Express ☐ Discover

Amount of Donation:

Credit Card #:

Expiration Date (mm/yy):

Name on card: PLEASE PRINT

DONOR INFORMATION

Name (Mr. | Mrs. | Ms. | Dr.):

This is a joint gift. Spouse/Partner name (Mr. | Mrs. | Ms. | Dr.):

Preferred mailing address: ☐ Home ☐ Business

Preferred email address: ☐ Home ☐ Business

HOME ADDRESS:

CITY/STATE/ZIP

PHONE

EMAIL

BUSINESS ADDRESS:

CITY/STATE/ZIP

PHONE

EMAIL

For information about donations, please contact:

Lisa Mohan, Senior Associate Director of Development, Division of Social Sciences
(phone 310-825-8930; email: lmohan@support.ucla.edu) 500430 M-6047

✂

Please send payment and this completed form to:

The UCLA Foundation, PO Box 7145, Pasadena, CA 91109-9903

To make your membership gift online, go to <https://giving.ucla.edu/Cotsen>

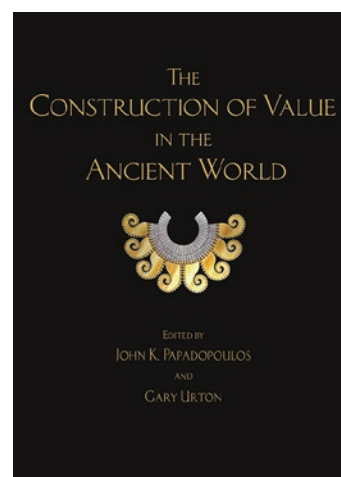
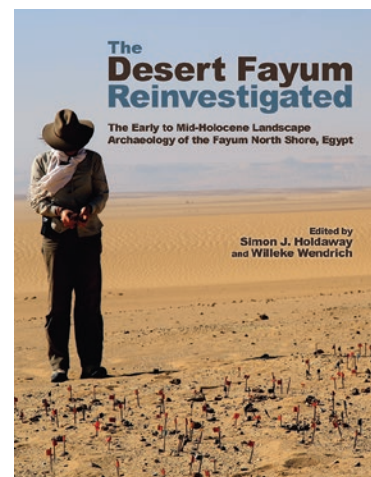
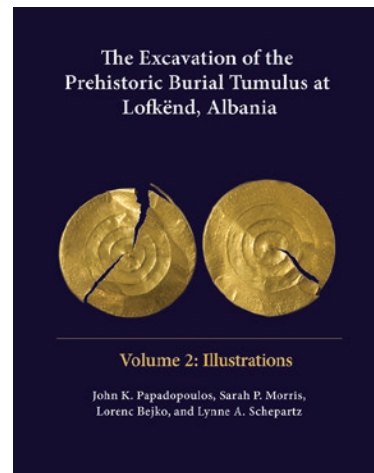
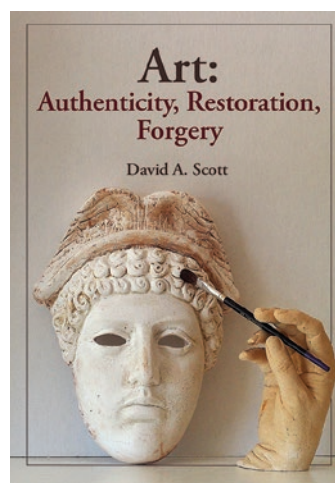
For additional information, please contact:

Lisa Mohan, Senior Associate Director of Development, Division of Social Sciences
(phone 310-825-8930; email: lmohan@support.ucla.edu)

Please review UCLA and The UCLA Foundation's Disclosure Statements for
Prospective Donors at: www.uclafoundation.org/disclosures or contact
the development officer listed on this form.



impacting the academic, local, and global community
www.ioa.ucla.edu



Special Thanks

Donors and Funders of Projects July 1, 2016 – June 30, 2017

(\$300 or more in support of the Cotsen Institute)

Adelson, Anne	Cunard, Jeffrey	National Geographic Society
Agarwal, Shri	Donnan, Christopher, and Marydee	National Science Foundation
Apache Corporation	Duque, Mercedes, and James	Nettleship, Patricia
Arnold, Deborah, and Walter Zipperman	Falcon, Donna, and James Myers	Orellana, Sandra
The Bader Family (Diedrich, Dulcy, Sebastian, and Ondine)	Fowler, Eileen, and Gary	Orrange, William, and Susan
Bailey, Jeanne	J. Paul Getty Trust	Ostroff, Anita
Baldwin, Dana M.	Gilbert, Carol	Papadopoulos, John
Bass, Harris, and Margaret	Girey, Helle	Pine, Benjamin, and Rue
Beaudry-Corbett, Marilyn and Don Corbett	Godwin, Beverly	Porcasi, Judith, and Peter
Bernard, Nancy, and Allan	Gottesman, Sonia	Portilla, Eleanor
Boochever, David, and Kathleen	Harris, Arlene	Posnansky, Merrick
Bost, Kurt	Hector, Bruce, and Justina	Sakath, Wickramanayaka K.
Bretney, John, and Louise	Henderson, David, and Susan	Sarafa, Tina Payne
Brooks, Elizabeth	Holmes, Marillyn	Savin, Adina
Brown, Marie	Holz, John and Marguerite Maynard Holz	Sherwood, Fran, and Arthur
Cahill, William, and Frances	Hopkinson, Beatrice, and Julian	Joan Silsbee Revocable Trust
Cameron, John, and Karen	Hullett, Katherine	Silton, Jill
The Capital Group Companies Charitable Foundation	Jacobson, Michelle, and Anthony Caldwell	Stanish, Charles, and Garine Babian
Cascadden, Neil	Jewell, Dorothy	Steensland, Ronald
Harry and Ovsanna Chitjian Family Foundation	Kao, Lawrence	Steinmetz, Charles, and Ellen
Chitjian, Zaruhi Sara	Kay, Jean Steinmetz	Steinmetz Foundation
Civalleri, Roger, and Patty	Keir, Jim, and Lori	Stewart, Jane
Coca-Cola Company	Kershaw, Norma	Stockman Family Foundation Trust
Conger, Jay, and Nadege	Lieberfarb, Gail Kamer, and Warren	Joseph and Fiora Stone Foundation
Conte, Courtney	Lin, Agnes	Strauss, Nathan
Cooper, Helene, and Edwin	MacCary, William, and Karla	Sweitzer, Noel
Cotsen, Lloyd, and Margit	Marott, Janet	Toyota Motor Sales U.S.A. Inc.
Cronin, Christine, and Mark Hurst	McCormick, Kathleen	Wake, David, and Marvalee
	Andrew W. Mellon Foundation	
	Miller, Jordan, and Felice	
	Morris, Sarah	
	Munitz, Barry	
	National Endowment for the Humanities	

UCLA

COTSEN INSTITUTE OF
ARCHAEOLOGY

Cotsen Institute of Archaeology
University of California, Los Angeles
405 Hilgard Avenue
Box 951510,
Los Angeles, CA 90095-1510
www.ioa.ucla.edu

