



## President's Message

by John D. Hall

Many of us in the western United States have been directly or indirectly affected by recent wildfires. On the morning June 6, 2020, my wife and I noticed smoke coming from Pusch Ridge along the western end of the Catalina Mountains north of Tucson, Arizona.

This small puff of smoke later erupted into the Bighorn Fire, which spread over the next month, burning across Catalina State Park into the Coronado National Forest, to the top of Mount Lemmon, and across the eastern side of the Catalina Mountains to the San Pedro River Valley.

The Bighorn Fire was finally contained on July 23 after burning a total of 119,978 acres and the majority of the Catalina Mountains.

The year 2020 has seen numerous wildfires burning throughout the western U.S., including record-breaking wildfires in California, Colorado, Oregon, and Washington. Combined, the national year-to-date total of area burned by wildfires, as of October 21, exceeds 13 million acres (National Large Incident Year-to-Date Report 2020). The smoke from these fires reached across the country and created hazardous air-quality conditions locally.

This fire season is unprecedented in our lifetimes. Historical records of wildfires date back to the 1920s and 1930s for California and Colorado. Five of the 2020 California wildfires are in the top 10 largest wildfires in California's recorded history, and two of the 2020



*Photograph of the Bighorn Fire burning across Pusch Ridge near Tucson, June 6, 2020.*

Colorado wildfires are the largest in Colorado's history. The impact of these fires to our homes and livelihoods can be devastating—and fatal to some. The impact of these wildfires on forest ecology is unknown at this point, and forest restoration may take decades or even hundreds of years; and some forests may never recover.

Even though the 2020 fires in the western U.S. are devastating, it is important to remember that forests and grasslands depend on fire. After all, “the Earth is a fire planet” (Pyne 2020). “Fire does not imply death, but rather change. As fire was associated with rebirth and renewal in mythology, fire today is recognized as an instrument of change and a catalyst for promoting biological diversity and healthy ecosystems” (National Park Service 2020a).

As Pyne (2020) points out, a paradox exists with our perception of wildfires. For example, the more we attempt to contain and control wildfires, the larger and more intense wildfires become. Interestingly, despite what the above numbers imply, the amount of land consumed by wildfires is actually shrinking on a global scale. This is attributable to the worldwide reduction of agricultural burning, as well as the transition to fossil fuels as an efficient (but costly) replacement for the energy derived from open fires.

According to the National Park Service data (2020b) 85 percent of wildfires are caused by humans, including “campfires left unattended, the burning of debris, equipment use and malfunctions, negligently discarded cigarettes, and intentional acts of arson.” We use fire to shape and improve our environment, for hunting, agriculture, cooking, light, warmth, security, industry, and ritual purposes. Personally, nothing relaxes me more than sitting in front of an open campfire.

Recent studies from Wonderwerk Cave in South Africa indicates the human-fire relationship extends back at least 1 million years (Berna et al. 2012). Fire also plays a significant role in the archaeological record. Much of the chronological data used by archaeologists are derived from fires (that is, radiocarbon [<sup>14</sup>C] dating of burned plant material). Fires can also be damaging to archaeological sites and artifacts (Ryan et al. 2012).

*(continued on page 4)*

(continued from page 3)



Photograph of a collapsed Ancestral Puebloan tower in Mesa Verde National Park following a 2000 wildfire.

Humans are not, however, the only species to use fire! Indigenous groups in Australia have long known that certain raptors spread wildfires. Specifically, the black kite (*Milvus migrans*), the whistling kite (*Haliastur sphenurus*), and the brown falcon (*Falco berigora*) in tropical Australian savannas are known to intentionally spread

wildfires individually and cooperatively to flush out prey. Recent scientific observations have been published (Bonta et al. 2017) that confirm the Aborigine's traditional ecological knowledge. According to Bonta et al. (2017), "Australian Aboriginal people possess fine-grained understandings of fire, utilizing it as a landscape and ecosystem management tool and to maintain cultural traditions." This incredible depth of ecological knowledge further demonstrates the importance of human-fire interaction. As humans, our relationship with fire is dynamic and fundamental. Our species likely would not exist without our ability to use, understand, and control fire.

#### References:

- Berna, Francisco, Paul Goldberg, Liora Kolska Horwitz, James Brink, Sharon Holt, Marion Bamford, and Michael Chazan  
2012 Microstratigraphic Evidence of in situ Fire in the Acheulean Strata of Wonderwerk Cave, Northern Cape Province, South Africa. *Proceedings of the National Academy of Sciences* 109:1215–1220. Electronic document, <https://doi.org/10.1073/pnas.1117620109>, accessed October 2020.
- Bonta, Mark, Robert Gosford, Dick Eussen, Nathan Ferguson, Erana Loveless, and Maxwell Witwer  
2017 Intentional Fire-Spreading by "Firehawk" Raptors in Northern Australia. *Journal of Ethnobiology* 37:700-718. Electronic document, <https://doi.org/10.2993/0278-0771-37.4.700>, Accessed November 2020.

National Large Incident Year-to-Date Report

2020 *Geographic Area Coordination Center*. National Interagency Fire Center. October 21, 2020. Electronic document, <https://gacc.nifc.gov/sacc/predictive/intelligence/NationalLargeIncidentYTDReport.pdf>, accessed October 2020.

National Park Service

2020a *Wildland Fire: Cultural Interpretations of Fire and Human Use*. Electronic document, <https://www.nps.gov/articles/wildland-fire-human-use-and-cultural-interpretations.htm>, accessed October 2020.

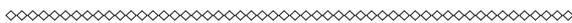
2020b *Wildfire Causes and Evaluations*. Electronic document, <https://www.nps.gov/articles/wildfire-causes-and-evaluation.htm>, accessed October 2020.

Pyne, Stephen J.

2020 *Our Burning Planet: Why We Must Learn to Live With Fire*. *Yale Environment* 360. 8 October 2020. Electronic document, <https://e360.yale.edu/features/our-burning-planet-why-we-must-learn-to-live-with-fire>, accessed October 2020.

Ryan, Kevin C., Ann Trinkle Jones, Cassandra L. Koerner, and Kristine M. Lee

2012 *Wildland Fire in Ecosystems: Effects of Fire on Cultural Resources and Archaeology*. General Technical Report No. RMRS-GTR-42-vol. 3. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fort Collins, Colorado.



## AAHS Lecture Series

*Brought to you by AAHS@Home through Zoom  
until we can meet again in person*

Dec. 21, 2020: No lecture

Jan. 11, 2021: Research Slam and Winter Party

Jan. 18, 2021: John D. Speth, *The Beginnings of Plains-Pueblo Interaction – The View from Southwestern New Mexico*

Feb. 15, 2021: Steve James, *Chicken Bones on Pueblo Grande*

Mar. 15, 2021: John Roney and Robert J. Hard, *Early Agriculture and Collective Action in the Southern Southwest*

Apr. 19, 2021: Lisa Young, *Sharing an Ear of Corn: An Archaeologist's Perspective on the Role of Food in Community Collaborations*

## Save the Date!

### 6th Annual Winter Party and Research Slam

January 11, 2021; 6:30 p.m.

Don't miss this opportunity for members and others regardless of where you live, work, or have traveled to, to join the AAHS Annual Winter Party and Research Slam. This year, the event will be held on January 11, 2021, at 6:30 p.m. The revised January schedule allows for students and others to present their research (or a part of it) after finals and when activities have settled down after the holidays. A limited number of research projects are each presented for 3 minutes in a fun, lively "lightening presentation" environment. We have had PowerPoints, readings, poetry, costumes, a children's book, interpretive dance, fire on the screen, and several other fun presentations over the years. If you are interested in presenting, email [aahs1916@gmail.com](mailto:aahs1916@gmail.com). If one of the AAHS Board members approaches you to ask if you would present at the Slam, please consider saying "Yes." It's fun for all! Also, each presenter wins a prize and three award winners each receive three years of AAHS membership (\$180 value) plus bragging rights!

The Winter Party and Research Slam will be held virtually this year through AAHS@Home and Zoom. Stay tuned for new categories for Research Slam awards, a silent auction, and a fun evening. Members will receive an email with more information once the details are confirmed.



### Upcoming AAHS Field Trip

*Video Field Trip to the ASM Pottery Vault  
Special Opportunity for AAHS Members Only*

**Saturday, December 5, 2020**

**11:00 a.m.**

AAHS@Home presents a close-up tour of the renowned Arizona State Museum (ASM) Pottery Vault with Dr. Patrick Lyons, ASM Director, Associate Professor of Anthropology, archaeologist, and ceramics



expert. In this pre-recorded tour, Dr. Lyons will give an overview of the collection of 24,000 whole vessels housed in the vault.

The most complete specimen of the oldest kind of pottery yet found in the Tucson Basin is included in this collection as are outstanding contemporary examples of Native American pottery. The tour will concentrate on the archaeological portion of the collection. Dr. Lyons will be available at the end of the tour for your questions.

We are very grateful to the ASM for affording our members this opportunity.

There is no limit to the number of current AAHS members who can participate in this field trip. However, **you must pre-register at:** <http://bit.ly/Dec2020FieldTripReg>.



## Cornerstone

*Darlene Lizarraga, Director of Marketing  
Arizona State Museum*

### **Dear AAHS Friends,**

As you may know, we at the Arizona State Museum (ASM) have been working to make significant storage upgrades for our photography collection. I'm writing now to give an update on our progress so far.

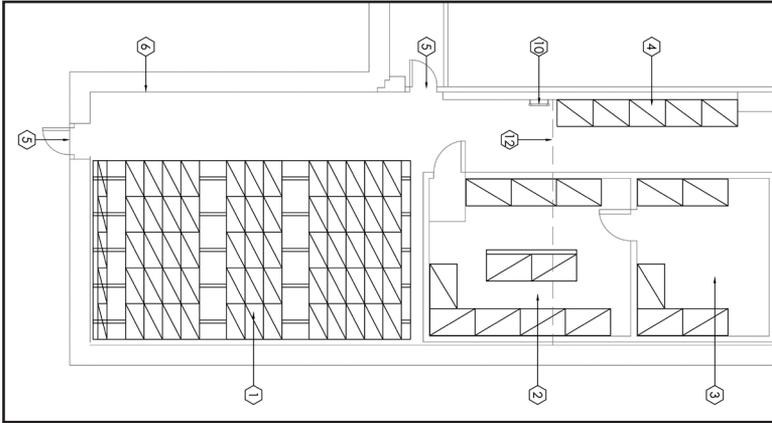
### **A RECAP**

Our goal is to upgrade the storage conditions of our more than half a million prints, negatives, and transparencies, and 250 motion-picture films. The collection is an irreplaceable visual record of the region's 13,000 years of human history.

The collection attained American Treasure status in 2018. This designation is ASM's third. ASM is the only museum in the country

*(continued on page 8)*

(continued from page 7)



*Floor plan showing compactor shelving area (1) and walk-in refrigerator (2) and walk-in freezer (3) areas. (GLHN Architects and Engineering, Inc.)*

to have three separate collections so honored, a fact that underscores their importance to the nation's shared cultural heritage.

The honor came with a \$500,000 grant from the Save America's Treasures (SAT) program, in addition to \$350,000 from the National Endowment for the Humanities (NEH). Factoring in the University of Arizona's (UA) help, we were left with about \$900,000 to raise.

Although progress has slowed due to unexpected financial and administrative uncertainties brought on by the pandemic, we are moving forward to develop construction documents based on the schematic designs I'm sharing with you here. Of course, the costs of materials, equipment, and labor are rising in the meantime. So, I'm certain that this project will take a bit longer and cost more than we planned. Unfortunately, we can't do anything about that except adjust as needed.

## **THE VISION**

The vision is a 2,160-ft<sup>2</sup>, multi-climate suite on the third floor of our north building. Features include compactor (mobile) shelving, a walk-in freezer, a walk-in refrigerator, and a cool room (60° F) – all completely climate controlled.

The \$500,000 grant from SAT is earmarked to purchase the walk-in freezer and the walk-in refrigerator.

The \$350,000 grant from the NEH is earmarked to purchase the compactor shelving.

Pre-COVID commitments from the UA include electrical upgrades, fire protection systems, and a new air handler equipped to control both temperature and relative humidity.

Donations are helping us pay for some of the general construction costs, such as demolition, masonry, doors and hardware, framing and drywall, plaster work, patching and painting, and millwork for the fabrication of the counters and work surfaces. So far, we have \$162,000 in cash and pledges. While we do not know what the ultimate price tag will be, we will stay the course for as long as it takes to complete the project, ensuring the region's visual memories will be preserved for another 1,000 years.

## **THE NEED**

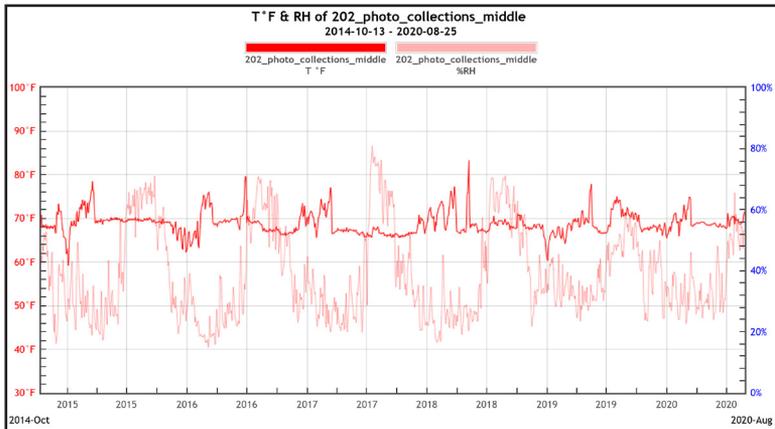
Our north building is 95 years old. As you can imagine, it has absolutely no modern-day, museum-quality climate control or fire suppression. So, what we have been doing over the past decades is renovating existing spaces and creating state-of-the-art microclimates. You may be familiar with our previous successful projects: the pottery vault, which took 10 years to complete, from 1998–2008, and the basketry vault, a project that spanned 2011–2017. Now, we are focusing our efforts on the photographic collection. Having just begun in 2018, we know we have a way to go.

## **DIGITIZATION IS NOT PRESERVATION**

We are often asked, “Why don’t you just digitize everything to solve your deterioration and storage issues?” While digital versions of analog photographs and films increase access, they do not preserve the originals. Moreover, digital media come with their own versions of deterioration, corruption, and loss, and are even costlier in terms of storage and back-up regimens, not to mention the expenses related to keeping up with rapid evolutions in technology to ensure they will be accessible in the future.

*(continued on page 10)*

(continued from page 9)



*This graph shows fluctuations in relative humidity (RH) and temperature (T) in one of the seven rooms where photo collections are currently stored. These environmental data were collected from 2014 to the present. Dehumidifiers keep relative humidity from reaching detrimentally high levels during the summer monsoon season. Five dehumidifiers in three of the most critical areas extract an average of 16 gallons of water from the air each day. The dehumidifiers run 24 hours a day, 7 days a week and are manually emptied twice each day.*

Although we are indeed invested in properly managing and preserving our digital media, this particular initiative is specifically focused on creating a stable environment for the analog media, which date from the late nineteenth century to the late twentieth century. Digitization is not a preservation strategy.

## JOIN US IN THIS EFFORT

We would welcome your financial support. Gifts large and small will combine to bring this important project to completion. You can donate now at <https://give.uafoundation.org/arizona-state-museum>, or contact me at 520.626.8381. Thank you for your continuing support despite these trying times.

On behalf of all of us at ASM, I send you our best wishes for a happy holiday season, good health, and safety.

## AAHS Membership Application

Membership is open to anyone interested in the prehistory and history of Arizona and the Southwest and who support the aims of the Society. Membership runs for a full year from the date of receipt, and covers all individuals living in the same household. If you are joining as a household, please list all members of the household. Monthly meetings are free and open to the public. Society field trips require membership.

### Membership Categories

- \$60 **Kiva members** receive four issues of the Society's quarterly journal *Kiva* and 12 issues of *Glyphs*
- \$45 **Glyphs members** receive *Glyphs*
- \$35 **Student Kiva members** receive both *Kiva* and *Glyphs*
- \$100 **Contributing members** receive *Kiva*, *Glyphs*, and all current benefits
- \$150 **Supporting members** receive *Kiva*, *Glyphs*, and all current benefits
- \$300 **Sponsoring members** receive *Kiva*, *Glyphs*, and all current benefits
- \$1,500 **Lifetime members** receive *Kiva*, *Glyphs*, and all current benefits

*Note: For memberships outside the U.S., please add \$20. AAHS does not release membership information to other organizations.*

I wish to receive *Glyphs* by (circle your choice):    Email    Mail    Both

I am interested in volunteering in AAHS activities:    Yes    Not at this time

### Institutional Subscriptions

University libraries, public libraries, museums, and other institutions that wish to subscribe to *Kiva* must do so through the publisher, Taylor & Francis at tandfonline.com. For institutional subscriptions to *Glyphs* (\$100), contact AAHS VP for Membership at the address below.

You can join online at [www.az-arch-and-hist.org](http://www.az-arch-and-hist.org), or by mailing the form below to:

Rebecca Renteria, VP Membership  
Arizona Archaeological and Historical Society  
Arizona State Museum, The University of Arizona  
Tucson, AZ 85721-0026

Name: \_\_\_\_\_ Phone : \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

E-mail: \_\_\_\_\_

#### Officers

President: John D. Hall | [John.Hall@terracon.com](mailto:John.Hall@terracon.com)  
Co-Vice Presidents for Activities: Fran Maiuri | [f.maiuri@gmail.com](mailto:f.maiuri@gmail.com)  
Paul Minnis | [minnis@ou.edu](mailto:minnis@ou.edu)  
Vice President for Membership: Rebecca Renteria | [rrenteri@email.arizona.edu](mailto:rrenteri@email.arizona.edu)  
Recording Secretary: Barbara Montgomery | [bmontgomery@tierra-row.com](mailto:bmontgomery@tierra-row.com)  
Communications Officer: Erica LeClaire | [eleclaire@email.arizona.edu](mailto:eleclaire@email.arizona.edu)  
Treasurer: Bill Gillespie | [wbgillespie@gmail.com](mailto:wbgillespie@gmail.com)

#### Directors

Shartlot Hart	Dwight Honyouti	Galen McCloskey	Ric Shorrock	Erica LaClaire (student representative)
Alicia Hayes	Deil Lundin	Stacy Ryan		Martin Welker (ASM representative)

#### Editors of Society Publications

*Kiva*: Debra Martin, Acquisitions Editor | [debra.martin@unlv.edu](mailto:debra.martin@unlv.edu)  
*Glyphs*: Emilee Mead | [emilee@desert.com](mailto:emilee@desert.com) | 520.881.2244

### Board of Directors 2020-2021

**A A H S**



Est. 1916

Arizona Archaeological and Historical Society  
Arizona State Museum  
University of Arizona  
Tucson, Arizona 85721-0026  
USA

## RETURN SERVICE REQUESTED

The objectives of the Arizona Archaeological and Historical Society are to encourage scholarly pursuits in areas of history and anthropology of the southwestern United States and northern Mexico; to encourage the preservation of archaeological and historical sites; to encourage the scientific and legal gathering of cultural information and materials; to publish the results of archaeological, historical, and ethnographic investigations; to aid in the functions and programs of the Arizona State Museum, University of Arizona; and to provide educational opportunities through lectures, field trips, and other activities. See inside back cover for information about the Society's programs and membership and subscription requirements.

NONPROFIT  
ORGANIZATION

U.S. Postage  
PAID

Tucson, Arizona  
Permit No. 1161