

Linking Hispanic Heritage Through Archeology

2013 PILOT PROGRAM REPORT AND RECOMMENDATIONS

Summary

Linking Hispanic Heritage Through Archeology (LHHTA) is a spring and summer program for Hispanic youth ages 14-18 years old that uses regional archeology as a bridge to connect urban Hispanic youth and their families to their own cultural history. Through participation in an archeological dig and artifact analysis, along with visits to National Parks, local museums, and university archeology laboratories, students engage in the study of Southwest archeology from the pre-contact to the historical periods with emphasis on the Hispanic heritage of the Southwest. They also observe and participate in activities associated with past cultural practices.

The program targets a community that has historically been underrepresented and has very low levels of engagement with National Park Service (NPS) and archeology.

LHHTA was piloted in the spring and summer of 2013 in Tucson, Arizona. The project was funded by the Washington Office Cultural Resources Stewardship and Science program through the Desert Cooperative Ecosystems Studies Unit (CESU) with the University of Arizona Anthropology Department (UA). To develop, organize and manage the program, the university partnered with the Environmental Education Exchange (EE Exchange), a local, community-



based non-profit organization. A network of local experts and resources was also developed through the program, creating lasting relationships and opportunities to further engage Hispanic audiences in archeology through environmental and experiential education and outreach.

As an incentive, and to deepen participants' engagement with their experiences, iPads were given to the students and teachers to be used as tools for recording and documenting their activities.

By forming personal and community-based dialogues through this program, NPS aims to develop a stronger relationship with the Hispanic community and increase their attendance and use of National Parks.

LHHTA Program Goals and NPS's 'A Call to Action'

"IN OUR SECOND CENTURY, we will fully represent our nation's ethnically and culturally diverse communities. To achieve the promise of democracy, we will create and deliver activities, programs, and services that honor, examine, and interpret America's complex heritage."

- A Call to Action Preparing for a Second Century Of Stewardship and Engagement



Linking Hispanic Heritage Through Archeology helps NPS fulfill its mission for the next century and honor America's diverse heritage. LHHTA fulfills this mission by:

- Creating and fostering relationships with community-based organizations by collaborating in partnership projects.
- Increasing the Hispanic community's awareness of National Park resources and opportunities.



- Using technology and social media to engage high school students.
- Educating Hispanic youth and their families about regional cultures and the role NPS plays in cultural resource protection.
- Engaging Hispanic youth by offering special programs, and volunteer and career opportunities within National Parks.
- Involving youth in healthy, outdoor recreation at their local National Parks.



The LHHTA program has at least one action from each of the four major themes of the NPS Call to Action, including:

CONNECTING PEOPLE TO PARKS

2. *Step by Step* - Students in the program visited a number of National Park sites with diverse interpretive messages involving diverse populations. This immersive experience also included an overnight camping trip. As well, students were able to visit with park staff and learn about careers in the NPS.

3. *History Lesson* - The LHHTA program's mission was to introduce Latino students to Hispanic heritage in Arizona through an immersive experience using archeology, site visits, and scientific laboratory analysis.

4. *In My Back Yard* - Only two of the students in this program had ever visited a National Park. Students visited a large number of NPS, state, and local sites, including recreational sections of the Juan Bautista de Anza National Historic Trail.

7. *Next Generation Stewards* - Students were introduced to archeological research and scientific methods through hands-on work on a historic site and in UA labs.

13. *Stop Talking and Listen* - This program gave the NPS an opportunity to learn first-hand how difficult it is for students in challenged economic situations to access parks and other community and academic settings.

ADVANCING THE NPS EDUCATION MISSION

15. *A Class Act* - Students will take back impressions of this experience to their peer group. Teachers who participated will have new concepts, activities, and materials to use in their classrooms.

16. *Live and Learn* - This program offered an immersive and very hands-on experience for students that will enhance classroom learning.

17. *Go Digital* - Students were provided with iPads to collect data and produce photos and videos of their experience. Videos are posted on YouTube for public viewing.

20. *Scholarly Pursuits* - Graduate student interns from the UA will advance their pursuit of degrees through participation in this project. Data recovered from archeological excavations will be published in academic journals. National Parks will be promoted as laboratories of research for future efforts.



PRESERVING AMERICA'S SPECIAL PLACES

24. *Invest Wisely* - The use of previously planned funding for the archeological project combined with funding for LHHTA enhanced both projects and was an important cultural resource and outreach investment for Tumacacori Mission National Historic Park.

25. *Park Pulse* - The funding of the LHHTA allowed for a more thorough investigation of Guevavi Mission, the protection of this resource, and the preservation of important archeological data.

ENHANCING PROFESSIONAL AND ORGANIZATIONAL EXCELLENCE

33. *Home Grown* - Latino students in the program were able to learn about NPS careers from Latino NPS employees and were introduced to parks in the Tucson area where they can apply for positions.

Overview and Evolution of the LHHTA Program

WHY ARCHEOLOGY AND HISPANIC HERITAGE?

Archeology is the scientific study of the ancient and recent human past through material remains, and it is a subfield of anthropology, the study of human culture. Archeology helps us understand not only where and when people lived on the earth, but also why and how they have lived, examining the changes and causes of changes that have occurred in human cultures over time. While archaeologists are primarily associated with excavations, studying artifacts, and curating material collections, today many archaeologists are actively engaged with living communities in the protection and interpretation of cultural resources.

LHHTA's program focus on Hispanic Heritage in the Southwest through the lens of archeology employs both historical and material sources to learn about the past. Archeology is a particularly effective way of exploring the past of historically marginalized communities because it systematically examines the material culture and lives of those whose history may never have been written down or was recorded by those with alternative purposes in mind.

By focusing on the four periods in Southern Arizona: the Prehistoric, Spanish Colonial, Mexican, and Territorial periods, LHHTA's goal is to give a broad overview of the

environmental, political, and cultural transitions that have created the community of Tucson and surrounding environs as they are today. Participants are encouraged to make personal connections between their family histories and larger social and cultural evolution of the region.



CREATING COMMUNITY PARTNERSHIPS

The LHHTA program began as a discussion with Dr. Barbara Mills, Department Head of the UA Anthropology Department and Jeremy Moss, archeologist at Tumacacori Mission National Historic Park about a planned excavation at the Guevavi Mission site. This project was an opportunity to introduce Latino students to the science of archeology and to archeology as a method to understand Hispanic heritage. We recognized that a couple of weekends on an archeological dig would not be enough to fully immerse the students in a broader understanding of the complex role Hispanic settlement played in the region. Therefore, we recognized the need to pair the archeological experience with a longer summer program that revolved around UA scientific labs, Hispanic and Indian sites in the area, and significant

hands-on activities including the use of digital technologies. The Environmental Education Exchange (EE Exchange) was a natural partner for this project. The organization had a long history of working with the NPS including the development and production of a documentary on the Anza Expedition and cross-border exhibits. As well, the EE Exchange worked with many other federal, state, and local agencies on curriculum related materials. Knowing the depth of connections that the EE Exchange (now in its 22nd year in Tucson) has in the local community and especially with local schools, Dr. Stanley Bond reached out to Neil Markowitz, EE Exchange's executive director, as a logical partner for this high school-based initiative for Hispanic students. EE Exchange co-founder and education director, Trica Oshant Hawkins, took lead responsibility for the program's development and implementation. A partnership was developed with the Archeology Department at the University of Arizona, involving both Dr. Barbara Mills and Dr. Barnett Pavao-Zuckerman. For the purposes of funding, Dr. Pat O'Brien, Cultural Resources Officer for the National Park Service and coordinator for the Desert CESU became part of the project planning team.



It was recognized that the Exchange would need additional technical and logistical assistance and Dr. Pavao-Zuckerman identified and recruited two interns to help with the creation and implementation of the project. Stephanie Reyes, a UA graduate with a degree in Anthropology, was hired through a special NPS internship program and was responsible for assisting Trica Oshant Hawkins during the development and field stages and Nicole Mathwich, a current graduate student in the Anthropology Department, assisted throughout the month-long summer program.

RECRUITMENT OF PARTICIPANTS

The EE Exchange began the process of recruiting area high school students and teachers. The recruitment process included:

- Development of a program announcement
- Dissemination of the announcement via email to selected schools, EE list-serves, colleague and teacher contacts, and postings at public libraries
- Information letters and application forms were developed and sent to interested applicants
- Phone interviews were conducted with highly qualified applicants
- References were contacted
- Participants selected (final selection included 10 student and 2 teachers)

(See Appendix A for LHHTA Recruitment Flyers and Forms)

A kick-off meeting was conducted in February and included introductions, a program overview, expectations, and commitments. There was also a discussion to inform participants about the upcoming Field School. Due to the excitement generated by this program, a third teacher volunteered his time as a full participant with no stipend. His efforts were a valuable contribution to the program.

OUTREACH TO PROJECT PARTNERS AND RESOURCES

The EE Exchange, with the assistance of the NPS and UA staff and program interns, identified regional resources (places, people, and programs) and developed the agenda and activities based on these opportunities. These resource people and organizations ultimately became project partners: they offered their services and time gratis or



for a very nominal fee; they shared their expertise, ideas, opportunities and resources; and they contributed to LHHTA by guiding its development based on regional opportunities. The project partner development process included:

- Identifying National Parks, museums, university labs and other resources to include in the program.
- Identifying and creating contacts associated with the various archeology labs at the University of Arizona. This was facilitated by UA partners, Dr. Barnet Pavao-Zuckerman and Dr. Barbara Mills, and by program interns.
- Creating a contact list for all potential program partners and places.
- Creating connections and building relationships with potential program partners. This entailed holding meetings with Park Rangers, lab personnel, museum directors, archeology specialists, local tribal members, and other resource people to discuss program options, develop relationships, consider opportunities, and set programming dates.
- Development of a program calendar listing events, labs, field trips, etc. for the entire month of June, 2013.
- Arranging transportation from a local van rental company.
- Submitting appropriate written requests for fee waivers from various National Parks and local museums.

(See Appendix B - Contacts and Related Programs Directory)



University of Arizona Spring Archeology Dig at Mission Guevavi



Early in the program, students and teachers had the unique opportunity to visit the first Mission Guevavi Field School excavation, a partnership between University of Arizona and Tumacacori National Historic Park, led by Dr. Barnet Pavao-Zuckerman, Jeremy Moss (NPS archeologist), and Dr. Homer Thiel (Desert Archeology, Inc.).



Students participated in on-site excavations on two separate Saturdays during March 2013. Working side-by-side with university students, graduate students, and archeologists, the high school students excavated and screened at a mission-period adobe structure and midden deposit where they found a variety of artifacts from cattle bones to charred peach pits from the mission orchard. There, they learned about the systematic collection of artifacts and the importance of documentation and provenience in archeological research. The group then visited Tumacacori National Historic Park and part of the Juan Bautista de Anza National Historic Trail, where they saw a replanted mission orchard and explored the standing mission structure and mission grounds.



LHHTA Summer Program

Throughout the month of June 2013, LHHTA students, teachers, and staff met five days a week from 8am to 3pm. The Southwest Archeology Lab at the U of A was offered by Barbara Mills and became the primary meeting place for the group before departing to various labs and field trips. To ensure attendance, it was necessary to purchase and provide month-long bus passes for four of the participants. Other students were either driven by parents or drove themselves.

While every day offered new experiences, program cohesion and consistency was created as students processed their experiences on a daily basis. Personal and group process activities were developed to give students the opportunity to share and reflect on their experiences. As well, on the very first day, students were given the assignment of creating a digital story to be presented at the end of the program. Students were given their iPads on day one to use as a tool to document their experiences. (See Engaging Through Technology for a description of the use of iPads in the program.)

LHHTA SUMMER PROGRAM COMPONENTS

The following is an overview of the various lectures, activities, and field trips that students participated in during the month of June. These program components are divided into several general areas and include:

- 1) Field Trips to National Parks and Monuments
- 2) UA Lectures and Labs

- 3) Arizona State Museum Activities
- 4) Other Area Museums, Labs, and Activities
- 5) Overnight Camping Trip.

Refer to LHHTA Calendar (Appendix C) for an "at a glance" review of LHHTA program activities.

(For a detailed description of objectives and activities for each of these program components, see Appendix B - Contacts and Related Programs Directory.)

Field trips to National Parks and Museums

– Students visited eight different National Parks, Monuments & Trails through the program. Park Service personnel (from Supervisors to Park Rangers) were contacted in advance to ensure a personalized tour or program for the students. Each respective Ranger was informed of the program's relationship with the Park Service, the focus and experience of the group in reference to archeology and Hispanic heritage, and the program's objective of including a career component. Rangers were asked to share their own personal stories of how they got involved with NPS. Fee waivers were also secured in advance of each visit. A fifteen-passenger van was used to transport participants to the Parks.

National Parks and Monuments Visited:

- Casa Grande National Monument
- Saguaro National Park (West)
- Saguaro National Park (East)
- Tumacacori National Historic Park
- Montezuma Castle National Monument
- Montezuma Well National Monument
- Tuzigoot National Monument
- Juan Bautista de Anza National Historic Trail



University of Arizona Lectures and Labs

- The partnership with the UA allowed for access to a diversity of archeology professors, laboratories, and associated resources. Each lab visit included a tour of the laboratory, an overview of research conducted at that lab, a lecture overviewing that particular discipline and the role it plays in archeology, and often, a hands-on activity giving students the opportunity to interactively engage with the subject.

UA Lectures and Labs Visited:

- Zooarchaeology Lab
- Bioarchaeology Lab
- Pottery / Ceramics
- Radio Carbon Dating Lab
- Dendrochronology (Tree Ring) Lab
- Lithics Lab
- Ethnobotany Lab

Arizona State Museum - The State Museum (on the UA campus) was visited on several occasions and there, students participated in a variety of educational activities, tours, and discussions. Students met and were engaged in conversation and activities with the Museum Director, Dr. Patrick Lyons; the Education Director, Lisa Falk; the Director of Preservation and Conservation, Dr. Nancy Odegaard; and a variety of other Museum staff. The State Museum was a dedicated and valuable partner in the LHHTA program.

Arizona State Museum Activities:

- Discovery Hunt
- Museum Quest
- Borders Photo Exhibit and Dialog
- Preservation and Conservation
- Curated Collections Tour
- Pottery Vault Tour

Other Area Museums, Labs, and Activities -

In addition to Park Service and University resources, the Tucson region has a variety of archeology and history related sites that offer educational programs relevant to LHHTA. At each of these sites, the EE Exchange developed relationships with staff members and worked with them to ensure that programs were tailored and presented to best meet the needs of the LHHTA program.

Other Area Museums, Labs, and Activities:

- Western Archaeological and Conservation Center (WACC), NPS
- Desert Archeology Lab
- San Xavier Mission
- Arizona Historical Society
- El Presidio de San Augustin
- Amerind Foundation Museum
- Ethnobotany Overview and Activities Day (Cordage Making / Brain-tanning)
- U of A Campus Life Day
 - » Campus tour, support for first generation students, application requirements, and School of Anthropology information



Timeline Photo of the Day

In effort to instill a sense of the iPad as a useful tool and to provide a photo record of daily activities and learning, a timeline was created upon which students posted selected photos illustrating their most outstanding experience of the day. Each day, students worked in teams to choose their most compelling photo from the previous day's activities, completed a short form describing the photo, then shared and posted their photo on a 25-foot timeline that was created and affixed to the wall in the hallway just outside the Southwest Lab. This provided an opportunity to process and reflect upon the experiences and to put them in a chronological context of archeological events in the Southwest Region.



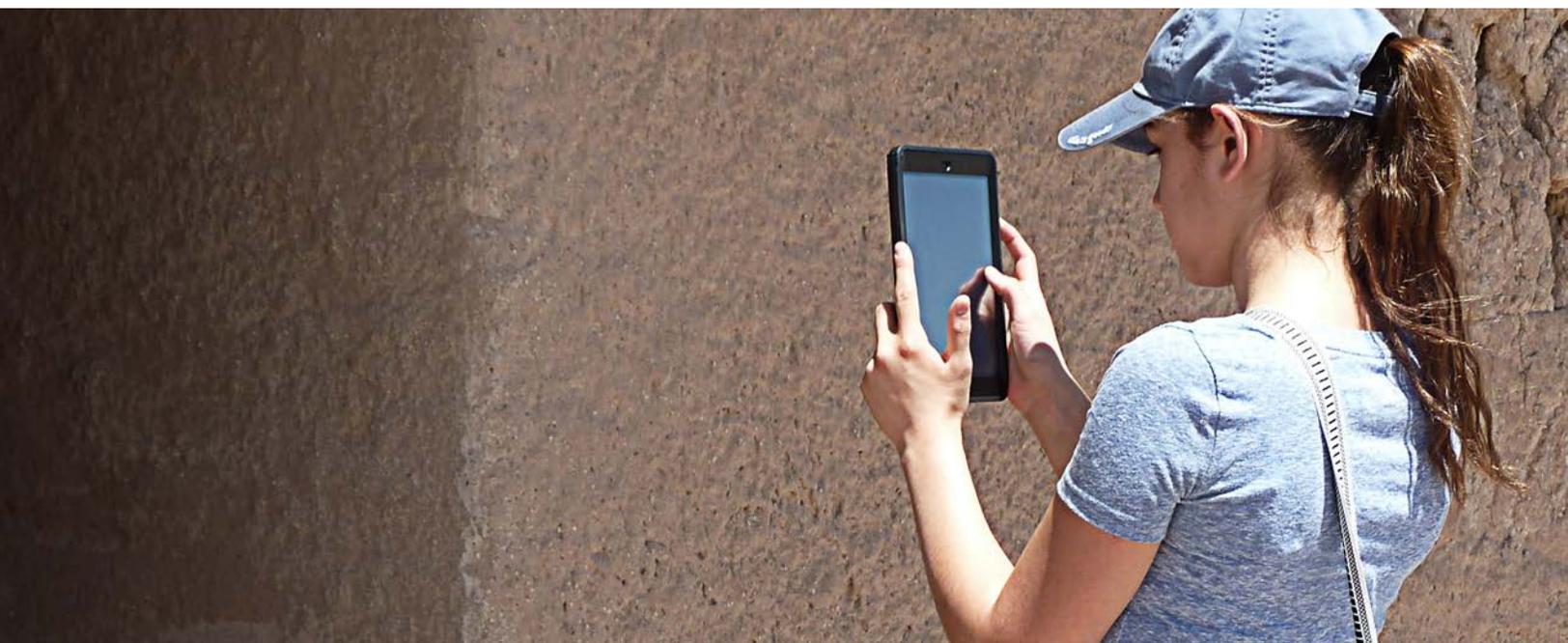
Engaging Through Technology



All participants of the LHHTA program received iPads to be used as tools for recording and documenting their activities. Additionally iTunes "apps" gift cards were given to students to download applications that would allow them to manage photos and videos and create movies and Keynote presentations. These apps included iMovie, iPhoto, Pages, and Keynote.



Students were assigned personal iPads, used them daily, and turned them in to be safely stored until the next day. Student were allowed to take the iPads home for the first time following the overnight campout and then again at the end of the program to keep as their own.





In addition to downloading the required photo and video apps, students downloaded a variety of journaling, research, and writing apps. Two workshops were held to familiarize students with their iPads as tools and to teach the basics of Keynote and iMovie. They were quickly adept at using the iPads to take notes during lectures, photograph events and annotate them, and create movies. Students brought their iPads to all activities and were continually recording their experiences. The iPads clearly became an integral part of the LHHTA program.

Students (and participating teachers) were given an assignment to create a digital story about their experiences in the LHHTA program and to tie in their own cultural heritage and traditions. Students presented their final projects to program participants, parents, and partners at the closing ceremony.

Overnight Field Trip



An overnight camping/field trip was organized to provide students with an opportunity to visit National Parks in Central Arizona and to give students a bonding experience with each other and the natural environment. A fifteen-passenger van transported the students and an additional van carried camping gear. The group first visited Montezuma Castle National Monument where a personal tour was arranged. Next, Montezuma Well National Monument offered the opportunity for an informal, self-led group hike. The group camped at a near-by private campground that night and then toured Tuzigoot National Monument the next morning.



Two of the students had never camped prior to this trip. The campsite, although next to a stream, was not primitive and provided a swimming pool and shower-house. The campout included group meals, s'mores around a fire, swimming, stories, activities, and plenty of free time. For high-school aged, first time campers, this made for a very enjoyable experience.



Lessons Learned, Discussion, and Recommendations

Discussion and Recommendations

Throughout the program, staff, teachers, and interns took note of successful program elements as well as those that would benefit from revisions or even exclusion in future programs. Student and teacher evaluations (disseminated at a reunion after the program) were analyzed to gain further insight for program improvements. Below is a discussion of program elements and associated recommendations. Following the recommendations is a brief overview of evaluation highlights.

Community Partners

The relationships built with community partners were vital to this program. Personnel from every museum, park, and lab visited stated that they hoped to be a part of the program again, should it be offered in the future. As stated previously, these individuals offered their services and time gratis or for a very nominal fee; they shared their expertise, ideas, opportunities and resources, and they contributed to LHHTA by guiding its development. They have also offered to help improve and guide development of future LHHTA programs. To express their gratitude, students sent thank you cards to all presenters that included photos taken during their visit.

Recruitment

Because of the EE Exchange's wide range of contacts in the community, we were able to cast a wide net in search of applicants. As well, since the program was targeting participants that were of Hispanic descent, we were also able to focus efforts on schools and neighborhoods with high proportions of Hispanics. None-the-less there were relatively few applicants (~20) in total. Because of the timing of the spring field school, program announcements were sent in January – February, a time when spring session is just commencing and summer is off the radar of most students. This likely contributed to the low response at that time. We did hear from other interested participants nearer to summer, when students are beginning to consider how they might spend their summer break.

Another factor that became evident was the lack of internet access in many homes. Several potential recruits heard of the program through teachers but due to lack of internet access at home, had to fill out hard copy applications and mail or hand deliver them to the EE Exchange office. In some cases, teachers helped students complete and mail in applications. Further contact with these students had to be by phone as email was not a reliable option for communications. All students did have cell phones and frequently sent text messages or questions to teachers and staff throughout the program.

Participating in the spring dig was an important component of the program but several of the students did attend the summer portion without having participated in the dig. They still benefitted from the program. These students were recruited after the dig as there was some drop out by students who had issues arise prohibiting them from participating in the program. These spots were quickly filled as it was easier to recruit students closer to summer.

This is a difficult issue to address as, in order to have students participate in the March dig, they must be recruited early. However, more interest is shown closer to the end of the school year. It is likely that since the program has now been piloted and was so successful, recruiting students to future programs early in the year will not provide the challenge that it did for this pilot effort.

The students that did drop from the program were seniors who had other opportunities and/or the sudden necessity to get a job for the summer. At this age and in this population, these students actually contribute to family income.

Another potential barrier to student attendance that became obvious as the summer program commenced was students' transportation to the program. They either had no ride, didn't drive, had no car or no money for the bus. As mentioned earlier, several students were given bus passes for the month.

As demonstrated with the lack of internet access at home, lack of transportation, and need to drop from the program in order to work and contribute to family income, this particular Latino population in Tucson has economic challenges that limit their access to and engagement in opportunities beyond their immediate neighborhoods and cultural group. By taking action to mitigate these challenges, students were successfully recruited and retained in the LHHTA program. By working within the economic and cultural constraints inherent in this community, such challenges may be planned for in advance and proactively addressed. LHHTA modeled this strategy and was able to offer students an opportunity different from anything they'd ever experienced: their eyes were opened to a whole new world of educational, recreational, and employment opportunities.

Recommendations:

- In future years, seniors should not be considered for the program as they are more likely to be distracted by other summer opportunities or necessities.
- Build in communication strategies that do not rely solely on internet access. Suggestions:
 - » Offer phone numbers for direct contact for questions or help with applications.
 - » Communicate directly with teachers to elicit their support in student recruitment.

- » Use texting as a means of communication directly with students.
- Secure transportation for students who could not otherwise attend. Suggestions:
 - » Purchase individual bus passes
 - » Arrange carpools
 - » Provide other transportation options

Program Components

Spring Field School – Dig

A very valuable component to the program, the spring field dig allowed students to work in the field with archeologists and university students. This was truly an opportunity to give students hands-on experience in archeology and should continue to be a part of the program in the future.

Summer Program Activities

Included in this discussion are the visits to and activities conducted during: 1) Field Trips to National Parks and Monuments; 2) U of A Lectures and Labs; 3) Arizona State Museum Activities; and 4) Other Area Museums, Labs, and Activities.

We were fortunate to pilot the LHHTA program in Tucson, Arizona, where resources to study archeology abound. Every one of the labs, museums and activities contributed to the program. In advance of visits, speakers were informed of the age level of the students in effort to ensure that the presentation would be on target with the audience. For the most part, this worked well. There were times when lectures did go long and students literally

nodded off... albeit politely. Such is the nature of long lectures – especially those following lunch. As well, students and teachers alike noted that the lectures were their least favorite element of the program. They preferred hands-on activities (e.g., throwing the atlatl, grinding clay, or brain tanning) the most.

Recommendations:

- Build in more hands-on activities
- Minimize and/or shorten the lecture components.
- Maintain relationships with project partners that contributed to the program.
- Encourage lecturers to edit their presentations for a high school audience with Latino Heritage.
- Spend more time for group discussion, sharing, and reflection.
- Coordinate the personal narrative video project with the Arizona Historical Society earlier in the program.

Timeline Photo of the Day

The photo of the day was a valuable way to process and reflect on students' experiences, although there were days that were missed due to field trips or other activities. As well, posting the photos required the students to send their selected photo to the intern who printed them for the students, who then affixed them to their forms before sharing and posting. There were days we got behind in this activity and then had to make it up. None-the-less, this was a good way to reflect back on the program experiences as the timeline

filled up with photos. (*Refer to Appendix D for photo-of-the-day forms and related photographs.*)

Recommendations:

- Keep the Timeline Photo of the Day activity in future programs but find ways to streamline selection and printing of photos.
- Build ways to create more obvious ties between activities and Timeline.
- Be sure to build in adequate time for this activity.

Engaging Through Technology

The iPads proved to be an essential element of this program. Students became very engaged in lectures and activities through their documentation of these events. They used the iPads as tools and it was observed that they were more deeply engaged in the program as they used the technology to document and process their experiences. Student comments and evaluations alike reveal how highly they valued the iPads in the program.

While the iPads were definitely an incentive for participation in the program, this hook became a valuable and essential documenting and processing tool in the LHHTA program.

The iPads also allowed for immediate access to photos taken by the students. The photos were printed and used daily for the Timeline Photo of the Day and to create Thank You cards for presenters.

Testament to the value of the iPads are the final projects submitted by the students. These programs, ranging from 3 to 8 minutes in length, demonstrate student cognitive and affective learning, deep processing, and ability to share their own cultural stories in the context of archeology in the Southwest. The videos created by the student and teacher participants can be viewed at: <https://www.youtube.com/user/EEExchange/videos>.

Recommendations:

- Continue to include iPads in future programs.
- As was practiced in this pilot, do not allow students to take home iPads until the end of the program or only for special needs (e.g., interviewing family members for digital stories.)

Overnight Camping Trip

Student comments and evaluations demonstrate just how important a part of the program the overnight camping trip was to them. Every one of the students declared it should definitely be a part of future programs, even those who had never previously camped. As well, students took it upon themselves to initiate their own "LHHTA reunion" camping trip. They were so bonded through the trip that they intend to get together in the future and attempt to recreate it.

As well, the camping trip allowed the group to travel farther from Tucson and visit National Parks and Monuments that would be difficult to visit in a day outing.

Recommendations:

- Include an overnight camping trip in future LHHTA programs.
- Build camping trip expenses into future budgets.

Evaluation Highlights

All participants completing the evaluations stated that they would participate in the program again if given the opportunity and that they would recommend LHHTA to friends and colleagues.

Ranking Program Elements

Teachers and students were asked to rank program components in order of most engaging to least engaging.

Teacher ranking:

1. visits to National Parks and U of A labs (tie)
2. visits to the State Museums
3. visits to other museums and lectures (tie)

Student ranking (Note: The camping trip was included in the student ranking list.):

1. camping trip
2. hands-on activities
3. visits to National Parks and Museums (tie)
4. U of A labs
5. lectures

In reference to the camping trip – all students said it was an important part of the program.

* * *

—“...it wasn't only fun but we also got to visit places farther than just an hour away with more time.”

* * *

—“...it gave us a chance to get to know everyone.”

NPS

All students and teachers agreed that as a result of this program, they were more interested in and aware of National Parks and were more likely to visit a National Park on a vacation.

* * *

—“I really learned a lot this summer. Stuff I was unaware of. I plan on visiting National Parks now.”

Archeology

All students and teachers agreed that as a result of this program, they could explain what archeologists do and they could personally analyze artifacts for information about human cultures.

—“I learned lots of information about my culture and now due to the program, I can identify artifacts.”

Culture

All students and teachers agreed that as a result of this program, they were more interested in their own heritage and that students' understanding of Hispanic culture and history increased.

* * *

—“I really enjoyed seeing all the information come together in the sites we visited.”

iPads

All students and teachers used their iPads numerous times each day to take pictures, record video, take notes, do internet research, and work on slide or video programs, and found the iPads to be useful during the program.

* * *

—“The iPad helped me document for later use and take pictures of things I learned.”

* * *

—“It gave me the chance to document my experience.”

* * *

—“My notes/memories/photos would not be as easily accessible without the iPads – very useful.”

* * *

—“It was a great learning tool. Program would have been hard without it. Great for taking notes and pictures and putting presentations together.”

Appendices



Attention College-bound 10-12th Grade Students :



- Are you interested in **Hispanic heritage** and the past?
- Did you know that the Spanish entered the Southwest nearly 500 years ago?
- Want to learn about **archaeology** and get **hands-on** experience?

**Application
deadline is
February
8, 2013!**

Apply now for an exciting new program:

Linking Hispanic Heritage Through Archaeology!

This **spring**, travel to a site in southern Arizona and participate in an archaeological excavation!

- Spend 3 days in March at the University of Arizona Guevavi Mission Field School
- Work alongside university professors and students, local archaeologists, and National Park Service staff

This **summer** during the month of June, learn about local heritage from prehistory to today!

- Travel to archaeological sites around southern Arizona
- Visit labs and museums at the UofA and around Tucson
- Hear presentations from archaeologists from various specialties, including zooarchaeology (animal bone), bioarchaeology (human bone), ceramics, lithics (stone tools), and more
- Meet with UofA professors and National Park Service staff
- Gain hands-on experience with cultural artifacts and the science behind archaeology
- Learn about admissions and financial aid opportunities at the UofA

**As part of the program, participating students will receive an
Apple iPad mini!**



Contact Stephanie at
stephaniereyes@eeexchange.org

OR (520) 670-1442

for an application or more information.

General Program Information:

<http://tinyurl.com/lhhtainfo>

Program blog:

<http://lhhta.tumblr.com>

Field school website:

<http://anthropology.arizona.edu/content/guevavi>



Sponsored by the Latino Initiative of the United States Park Service

Program developed by Environmental Education Exchange

Linking Hispanic Heritage through Archaeology

Calendar

Application due: February 8, 2013
Participants notified by: February 15, 2013
Kick-off meeting: February 25 or 26, 2013
Spring field day: March 2, 2013
Spring overnight: March 15–16, 2013
Summer program: June 3–28, 2013
 Monday–Friday, 8AM–3PM

Eligibility Requirements

To apply, students must:

- be in 10–12th grade in the 2012–2013 school year
- be proficient in English
- be able to participate in both the spring and summer activities

Participant Benefits

- Travel to archaeological sites around southern Arizona
- Visit labs and museums at the University of Arizona and around Tucson
- Hear presentations from archaeologists from various specialties, including zooarchaeology (animal bone), bioarchaeology (human bone), ceramics, lithics (stone tools), and more
- Meet with U of A professors and National Park Service staff
- Gain hands-on experience with cultural artifacts and the science behind archaeology
- Learn about admissions and financial aid opportunities at the U of A
- Receive an Apple Ipad and learn how to use it as a tool for documenting research

Covered by the Linking Hispanic Heritage through Archaeology Program

- Round-trip travel expenses to all field sites
- Camping accommodations and all meals during the Spring overnight trip
- Available support for the college application process
- Continued support and contact from other participants and staff from the program
- Admissions to all museums, National Parks, and historic sites visited

Requirements of Participation

- Attend both spring and summer sessions
- Participate in all program activities
- Present aspects of their work to other program participants

.....
For additional information, please contact:

Stephanie Reyes
Phone: (520) 670-1442
Email: stephaniereyes@eeexchange.org

To be considered for the Linking Hispanic Heritage through Archaeology Program, students must submit the following:

- Application
- Essay
- Student and Parent/Guardian consent forms (will be sent after receipt of application)
- Two recommendations
- Copy of transcripts or recent report cards

Please mail all forms and application materials to:

*LHHTA Program
Environmental Education Exchange
738 N. 5th Avenue
Suite No. 100
Tucson, AZ 85705*

Application deadline is January 25, 2013. Participants will be selected by February 8, 2013.

Full Name: _____

Preferred Name: _____

Street Address: _____

City, State, Zip: _____

Home phone: _____ Student mobile: _____

Student's email: _____

Date of birth: _____ Gender: Female Male

What race/ethnicity do you most identify with?

- Hispanic/Latino
- White/Caucasian
- African American or Black
- Native American, Alaskan Native
- Asian
- Hawaiian or other Pacific Islander
- Other: _____

What is the primary language spoken at home?

- English
- Spanish
- Other: _____

Do you know any languages other than English?

- Yes No

If yes, specify: _____

Education

What year in high school are you currently in?

- Sophomore
- Junior
- Senior

High school: _____ GPA: _____

Do you plan to attend college? Yes No Don't know

If yes, where are you considering applying?

- University of Arizona
- Arizona State University
- Northern Arizona University
- Pima Community College
- Other 4-year Institution (list below)
- Other 2-year Institution (list below)
- Other: _____

List PSAT score (if taken): _____

List honors or AP courses you have taken or are currently taking and applicable grades or AP scores:

List any other courses (science, social studies, etc.) and grades or extracurricular activities that you think are relevant to this program:

Family Information

Parent/guardian full name(s): _____

Parent/guardian phone: _____

If parent/guardian address is different from student's, list below:

Street address: _____

City, State, Zip: _____

Parent/guardian email: _____

Mother's highest level of education:

- Some high school
- Completed high school or GED
- Some college
- 2-year degree (Associate's)
- 4-year degree (Bachelor's)
- Graduate school or advanced degree (PhD, MD, etc.)
- Unknown

Father's highest level of education:

- Some high school
- Completed high school or GED
- Some college
- 2-year degree (Associate's)
- 4-year degree (Bachelor's)
- Graduate school or advanced degree (PhD, MD, etc.)
- Unknown

Additional Background Information

List past work experiences (if any), hours per week, and dates:

How did you hear about this program?

- Teacher
- School counselor
- Online
- Flyer
- Fellow student
- Other: _____

Recommendations

Two recommendations/references are required for the program application. Please give the separate recommendation form to a teacher, counselor, job supervisor, or someone else (not a family member or friend) who can inform us about your ability to do well in this program.

Reference #1

Full Name: _____

Title: _____

Organization: _____

Phone/email: _____

Reference #2

Full Name: _____

Title: _____

Organization: _____

Phone/email: _____

Essay

In 400-500 words (about one page single-spaced), describe your academic and career plans at this time. Identify areas or questions in archaeology that interest you. Describe what strengths or attributes make you a competitive applicant for this program. Finally, how will participating in this program help you reach your academic and career goals?

Linking Hispanic Heritage through Archaeology 2013 Recommendation Form

To be filled out by student: *Please print or type.*

Student's Name: _____

Home address: _____

City/State/Zip: _____

School: _____

To be filled out by reference: *Please print or type.*

Reference Name: _____

Title: _____

Organization: _____

Phone and/or email: _____

The above student is applying for the Linking Hispanic Heritage through Archaeology Program run by the National Park Service and the University of Arizona. This is a college-level program meant to introduce students to the theory and practice of archaeology.

How long have you known the applicant? _____

In what capacity do you know the applicant? _____

How would you rank this student academically in his or her class?

Top 5% Top 10% Top 25% Other: _____

In your opinion, what are the applicant's strengths? In what area(s) do they need improvement?

In the space below, please state why you think this student is a good candidate for this program.

Applicant Last Name _____ First Name _____

NATIONAL PARK SERVICE & UNIVERSITY OF ARIZONA CONSENT FORM

PARENT OR GUARDIAN MUST SIGN THIS FORM IN ORDER FOR CHILD TO PARTICIPATE

CONSENT FOR PROGRAM PARTICIPATION:

I acknowledge that there are risks inherent in any children’s program, including but not limited to injury or death arising from: participation in outdoor activities, children’s failure to follow instructions of teachers and supervisors, communicable illness, and independent acts of third parties not under the control of the LHHTA Program staff. In order to minimize risks to my child or other participants, I will take responsibility to see that my child is properly prepared for all activities and is in good health during the program.

In case of medical emergency, I understand that every reasonable attempt will be made to contact me, my family physician, or the emergency contact named below. However, in the event that I or my named contacts cannot be reached, I give my permission to the adults in charge of the LHHTA Program to secure emergency medical treatment for my child. I agree to pay for any charges for emergency medical treatment that are not covered by my personal health insurance.

Emergency Contact *(other than parent/guardian)* _____ Phone _____

Health Insurance Co. & Policy No. _____ Phone _____

Family Physician _____ Phone _____

For your child’s comfort and safety, please indicate any special conditions we may need to know about (allergies, medical prescriptions, recent injuries or illnesses, etc., use additional paper if necessary):

RULES AND REGULATIONS

PLEASE REVIEW THE RULES AND REGULATIONS CAREFULLY WITH YOUR SON/DAUGHTER. THESE RULES HAVE BEEN IMPLEMENTED TO MAKE THE PROGRAM A SAFE AND SUCCESSFUL EXPERIENCE FOR YOUR SON/DAUGHTER, OUR STAFF, AND THE FACILITIES UTILIZED AS PART OF THE LHHTA PROGRAM.

- I agree that my child will comply with the LHHTA Program rules, standards and instructions for student behavior, as well as the Facility’s standards of conduct. I waive and release all claims against the National Park Service, Environmental Education Exchange, and the University of Arizona that arise at a time when my child is not under the direct supervision of the LHHTA Program staff or that are caused by my child’s failure to remain under such supervision or to comply with such rules, standards and instructions.
- LHHTA meets daily from 8AM-3PM during June. An outside job, summer school, or summer camp that would interfere with full participation in the summer portion of the program is strongly discouraged and is only rarely permitted.
- Commitment to participating in field days is an important part of the program.
- We reserve the right to remove students from the program at any time for misconduct or noncompliance with policies and procedures.

MEDIA RELEASE

I hereby grant this program permission to record my child/ward’s likeness and/or voice for use by television, films, radio, or printed media to further the aims of this program in related campaigns and magazine articles, booklets, posters and in other ways they may see fit.

CONSENT TO ACCESS ACADEMIC RECORDS

I authorize and permit the staff of this program to view and make copies of academic records and/or transcripts for purposes related to operating and studying the programs and activities sponsored by the LHHTA Program.

CONSENT FOR PROGRAM EVALUATION

I authorize and permit the staff of this program to contact my child/ward following completion of the program to ask for information about their educational and career choices and activities.

Knowing the risks described above, and in consideration of my child being permitted to participate in the Program, I agree, on behalf of my family, heirs, and personal representative(s), to assume all the risks and responsibilities surrounding my child’s participation in the Program. To the maximum extent permitted by law, I release, indemnify,

and agree not to sue the National Park Service, Environmental Education Exchange, or the University of Arizona from and against any present or future claim, loss or liability for injury to person or property which I or my child may suffer, or for which I may be liable to any other person, during my participation in the Program (including periods in transit).

I have carefully read this Release Form before signing it. No representations, statements, or inducements, oral or written, apart from the foregoing written statement, have been made. This agreement shall be governed by the laws of the state of Arizona, which shall be the forum for any lawsuits filed under or incident to this agreement or to the Program.

I CERTIFY THAT I FULLY UNDERSTAND THE ABOVE GUIDELINES AND THAT THE INFORMATION GIVEN IN THIS APPLICATION IS TRUE AND CORRECT.

Signature of Applicant: _____ Date: _____

Printed Name: Last _____ First _____

Signature of Parent/Guardian: _____ Date: _____

Printed Name: Last _____ First _____



National Park Service
U.S. Department of the Interior

Photo Release Form

I hereby grant the National Park Service permission to use my likeness in a photograph in any and all publications for Government or nongovernment purposes, including web site entries, without payment or any other consideration in perpetuity. I understand and agree that these materials will become the property of the National Park Service and will not be returned.

I hereby irrevocably authorize the National Park Service to edit, alter, copy, exhibit, publish or distribute this photo for purposes of publicizing the National Park Service's programs or for any other lawful purpose. In addition, I waive the right to inspect or approve the finished product, including written or electronic copy, wherein my likeness appears. Additionally, I waive any right to royalties or other compensation arising or related to the use of the photograph.

I hereby hold harmless and release and forever discharge the National Park Service from all claims, demands, and causes of action which I, my heirs, representatives, executors, administrators, or any other persons acting on my behalf or on behalf of my estate have or may have by reason of this authorization.

I am 18 years of age or older and am competent to contract in my own name. I have read this release before signing below and I fully understand the contents, meaning, and impact of this release. I agree to indemnify and hold the Government harmless for any and all losses, claims, expenses, suits, costs, demands and damages or liabilities on account of personal injury, death, or property damages of any nature whatsoever and by whomsoever made, arising out of the photographed activities in which I am taking part.

Signature/Date

Printed Name/Date

Address

City

State

Zip Code

Phone

If the person signing is under age 18, there must be consent by a parent or guardian, as follows:

I hereby certify that I am the parent or guardian of _____, named above, and do hereby give my consent without reservation to the foregoing on behalf of this person.

Parent or Guardian's Signature/Date

Parent or Guardian's Printed Name/Date

Privacy Act Statement: This information is provided to comply with the Privacy Act (PL 93-579), 5 U.S.C. 301 and 7 CFR 260 authorizing acceptance of the information requested on this form. The data you furnish will be used only to provide the National Park Service with contact information pertaining to this release form.

EXPERIENCE YOUR AMERICA™

08/2006

The National Park Service cares for special places saved by the American people so that all may experience our heritage.

Linking Hispanic Heritage Through Archaeology Field School Supply List

- Please pack and bring your LUNCH for the Saturday field trips!
- Bring a water bottle and drink often (we'll have a large cooler to refill your personal bottles)

Excavation Kit

(Have these items for day outings)

- Backpack or dig bag (large shoulder bag)
- Field notebook
- Pencils & Black Ink Pens
- Water bottle (full)
- Sunscreen
- Bandana
- Hat
- Sunglasses (optional but recommended)
- Work gloves (sturdy gardening or leather gloves)
- Personal snacks
- Optional excavation equipment: metric tape measure, 1 inch paintbrush, swill-army knife or multi-tool, small first aid kit

Field Clothing

Note: It will be cool or cold in mornings and likely hot in the afternoon so best to dress in layers. We will be in the dirt so wear clothes that you don't mind getting dirty.

- Long pants and long sleeve shirt (lightweight but sturdy)
- Sturdy shoes or light-duty hiking boots (& socks)
- Hat (for sun especially but maybe a warm hat for cold mornings)
- Jacket (depending on weather)
- T-shirt (if you feel too warm in long sleeves)

Camping Items

(For our overnight March 15-16 – Note: if you do not have any of these items, let us know immediately and we will secure what is needed)

- Tent
- Sleeping bag
- Sleeping pad (Thermarest or ground pad)
- Blanket (for added warmth if needed)
- Pillow
- Flashlight
- Folding chair (optional)

Other Personal Items:

- Toiletries and medications
- Towel
- Sleeping clothes

PRESENTER: REX ADAMS

Contact Info:

Email: radams@ltr.arizona.edu
Phone: +1 (520) 626-3617
Room: Bannister Building 400A-10
Title: Research Specialist, Sr

Address:

Research Specialist, Sr.
Tree-Ring Lab
1215 E. Lowell Street
Box 210045
Tucson, AZ 85721 USA

Date of Presentation: 5/18/2013 **Length of Presentation:** 2 hours

Location: Tree-Ring Lab

1215 E. Lowell Street
Box 210045
Tucson, AZ 85721 USA
phone: +1 520 621 1608

Overview:

Students and teachers learn that the Laboratory of Tree-Ring Research is at the forefront of world of dendrochronology and uses tree rings as natural chronometers and recorders of change in the environment with which human society is inescapably linked. During the tour, the laboratory's contributions to understanding natural environmental variability in climatic, hydrologic, geomorphic, and ecological systems was discussed. How tree rings are sampled, what researchers can learn from them, and how they can help us understand the past were also presented.

Associated Activities:

Tour of the tree ring lab, and time permitting, skeleton plotting of tree ring growth lengths which is a basic data collection technique in dendrochronology

Skills and Concepts:

human linkage to the environment; research on paleoenvironments; data collection techniques; droughts in the Southwest; human impacts on the environment; cross dating methods; data limitations

PRESENTER: RON BRIDGEMON & DENI MITCHELL

Contact Info:

Associate curator of public program &
Education coordinator, 520-586-3666 ext. 17
deni@amerind.org

Address:

Amerind Museum
2100 N. Amerind Rd.
Dragoon, AZ 85609

Date of Presentation: 6/27/2013 **Length of Presentation:** 3 hours

Location: Amerind Museum and grounds

Overview:

The visit to the Amerind museum consisted of activities designed to connect students to the activities of peoples of the past, convey the meaning of archaeological conservation, and to think critically about how museums are created and why. Students received a tour of the Amerind Museum, and participated in an interactive archaeology exercise that included hands on activities using Native American tools and technologies. They threw atlatls at a mock mammoth, ground corn with a metate, and created calendar sticks. Exhibits included the museum's collection of anthropological objects and artifacts from the Casas Grandes excavation. Embedded in all their activities was the importance of archaeological preservation. Students used their iPads to record parts of the tour for later review and took pictures of objects they found interesting.

Associated Activities:

Students explored the nearby rock formations, used a variety of different fire starters, ground corn using mortar and pestle and mano and metate technologies, threw atlatls with different dart lengths, and made personal calendar sticks using their own symbols and traditional symbols.

Skills and Concepts:

weakness/strengths of different technologies, archaeological preservation, Casa Grandes excavation, local archaeology of the Dragoon Mountains, imagining how past peoples lived

PRESENTER: RICK COLLINS

Contact Info:

rickc@email.arizona.edu
(520) 837-8119
tucsonpresidiotrust.org

Address:

Tucson Presidio Trust
133 West Washington Street
Tucson, AZ 85702

Date of Presentation: 6/27/2013 **Length of Presentation:** 3 hours

Location: El Presidio San Augustin de Tucson

Overview:

Students were guided by Mr. Collins and the director of education, Jean Baxter, through the Presidio grounds and buildings. Mr. Collins gave an overview of Spanish colonial history in the Southwest. The group explored the ramadas, the older pre-agricultural pithouse, adobe walls, and soldier and family quarters. They sat on period beds, held period weapons (unloaded replicas), and dressed up in period clothes. The presentation focused on the daily lives of soldiers and their families, the tools they would have used, stories of the first Battle of Tucson, and why resource competition led to violence between Tohono O'Odham with Spanish allies, and certain Apache groups. Students were led on a tour through modern downtown Tucson around what had been the Presidio walls. Finally, the group explored the blade exhibit in the restored Mexican roadhouse. Mr. Collins gave his contact information to the students in case they were interested in volunteering and doing research. Following the LHHTA program, one student commenced a community service project with the Presidio.

Associated Activities:

explanation of Spanish arms and cannons, tour of presidio museum, tour of downtown Tucson, exploration of exhibits, and description of volunteer opportunities

Skills and Concepts:

daily life at the Presidio, gendered division of labor, resource control and social conflict, Spanish colonialism in the Southwest, landscape change through time

PRESENTER: KARL CORDOVA, SUPERINTENDENT CASA GRANDE NP

Contact Info:

520 723-3172 #121
602 908-9392

Address:

Casa Grande Ruins NM
1100 W. Ruins Drive
Coolidge, AZ 85128

Date of Presentation: 6/5/2013**Length of Presentation:** 2 hours**Location:** Casa Grande Ruins NM

1100 W. Ruins Drive
Coolidge, AZ 85128

Overview:

Mr. Cordova met the LHHTA group in the visitor center, and then led the group to the orientation video. After the orientation, he gave a short presentation on the importance of multiple voices when telling the story of Casa Grande, of various Native American oral traditions and archaeological and historical interpretations of the site. He then went on to talk about his experiences as a Latino man in the National Park Service and how his experiences in high school and college led him to work for the NPS. In addition, he discussed opportunities for high school students to work and learn on the job. He then led the group to the ruins and discussed the history and meaning of the place, pointing out various astronomical and architectural associations, and asked the students what sort of mobile applications would make the site more accessible to visitors. After the outdoor tour, the group ate lunch and toured the museum in the visitor center.

Associated Activities:

Orientation video, presentation on working for the Park Service, tour of the ruins, museum visit

Skills and Concepts:

multiple interpretations of the site, changing ideas about history, use and misuse of environmental resources, park service careers

PRESENTER: LISA FALK

Contact Info:

Associate Curator, Education, Arizona State
Museum
520-248-0417 cell,
520-626-2973 wk
falk@email.arizona.edu

Address:

Arizona State Museum
The University of Arizona
1013 E. University Blvd.
P.O. Box 210026
Tucson, Arizona 85721-0026

Date of Presentation: 5/4/2013 **Length of Presentation:** 8:00-3:00 (whole day)

Location: Arizona State Museum (ASM) core and temporary exhibits, ASM Room 309

Overview:

This all-day activity introduced and reacquainted students and teachers with the indigenous cultures of Arizona. They immediately began to use their iPads in the QR Code Museum Quest, and as tools for photo, video, and text collection of their experiences. Students also explored the Paths of Life exhibit through a “Discovery Hunt,” viewed a photographic exhibit entitled “A World Separated by Borders” and participated in a dialogue about the feeling evoked by the exhibit.

Associated Activities:

QR Code Museum Quest where students and teachers use iPads to discover clues through out ASM; Self-guided Discovery Hunts where students and teachers fill out worksheets on one of the cultures in the ASM’s core exhibit, Paths of Life; reflection sessions after each activity; pottery design activity where the students compose their own pottery designs and symbols using what they have learned earlier in the day; walk through “A World Separated by Borders” photo exhibit dealing with illegal immigration followed by a facilitated dialogue w/ Tad Pfister and Lisa Falk

Skills and Concepts:

role of a museum in public interpretation; indigenous cultures of Arizona; cultural change/continuity; learning to use iPads as tools for data collection; Southwestern pottery design and composition; meanings of symbols; looking at illegal immigration and personal intersections with it

PRESENTER: SUZANNE FISH, PH.D.

Contact Info:

Professor of Anthropology, Curator, Archaeology
(Arizona State Museum)
sfish@email.arizona.edu, Telephone:
520.626.8290
Office: Arizona State Museum North, Room 213

Address:

School of Anthropology
1009 East South Campus Drive
Tucson, AZ 85721

Date of Presentation: 6/24/2013 **Length of Presentation:** 3 hours

Location: Southwest lab, Haury 401, and Borderlands Lab, Arizona State Museum South

Overview:

Dr. Fish gave an introduction to Southwest ethnobotany and how native peoples used plants in the past. She focused on the cultivation of wild varieties that are not clearly domesticated like saguaro, prickly pear, and agave. Dr. Fish then led the group to her lab where she had a variety of tools used to process agave fibers, from the prehistoric to the historical period, that the students could touch and handle. Her presentation and demonstration focused on the steps required to make cordage that could be used for making rope, baskets, and clothing.

Associated Activities:

Presentation on ethnobotany of the borderlands, step by step explanation of agave processing with tools

Skills and Concepts:

technological change through time, resource use in desert regions, plant domestication

PRESENTER: ERIC HEFFTER

Contact Info:

Graduate student, PhD program, eric.heffter@gmail.com, 1.203.213.4553

Address:

School of Anthropology
1009 East South Campus Drive
Tucson, AZ 85721

Date of Presentation: 6/17/2013 **Length of Presentation:** 1.5 hours

Location: Lithics lab, Haury building and outside on school grounds

Overview:

Eric Heffter led students through an activity organizing the different technologies of knapped stone --from 2 million year old hand axes to more recent, smaller finer points. Students handled blades and axes, and considered how ancient peoples had used them. A PowerPoint presentation next covered what materials were best for flintknapping, how tool construction changed over time, and how tool evolution is related to human evolution. The presenter shared knives, points, and scrapers from different parts of the world, and showed a video of his personal experimental archaeology research on hand ax making. A demonstration on the basics of flintknapping was presented outdoors and students got an opportunity to try flintknapping.

Associated Activities:

Introduction to lithics, lithic seriation activity, presentation of research, flintknapping demonstration and introduction

Skills and Concepts:

human evolution and thought processes, technological change over time, use of geological signatures to trace cultural patterns, appreciation of flintknapping difficulty and how past peoples survived

PRESENTER: JAMES M. HEIDKE

Contact Info:

Ceramic analysis, ceramic petrography,
provenience studies, quantitative methods
jheidke@desert.com
520.881.2244; 520.881.0325 FAX

Address:

Desert Archaeology, Inc.
3975 North Tucson Blvd.
Tucson, Arizona 85716

Date of Presentation: 6/26/2013 **Length of Presentation:** 3 hours

Location: Desert Archaeology, Inc. (Southwest cultural resource management firm)

Overview:

Allison Diehl, a project director at Southwest Archaeology, gave a short presentation on what cultural resource management is, what these archaeologists do, and why it is mandated by law. Jim Heideke then gave a tour of the Southwest analysis labs, introducing the researchers in each one, and the analysis of each material from ground stone to flaked stone to ceramics to botanical remains. Jim Heideke introduced students to local and regional ceramic types found at prehistoric Hohokam, protohistoric, and historic period sites in the Tucson Basin. The lecture highlighted the importance of material quality, manufacturing methods, and the relationship between function and shape. Specific styles of local ceramics were discussed, and students learn how ceramics are connected to particular periods of time and peoples in Tucson. Finally, Homer Thiel, who the students had previously met at Guevavi, gave a presentation on the archaeology and history of a Mexican family from the late 19th-century whose home was excavated as part of a CRM project. Students used their iPads to take pictures of the materials in each lab and asked the analysts questions about their work.

Associated Activities:

Tour of labs and facilities, introduction of cultural resource management, presentation on the archaeology of a 19th-century Mexican family in Tucson, meeting project directors and researchers, comparison of temper in pottery to the source sand under a microscope,

Skills and Concepts:

Latino heritage preserved through archaeology, the variety of jobs associated with CRM, how chemistry and geology are used to understand past peoples, breadth of the discipline

PRESENTER: GREG HODGINS

Contact Info:

Assistant Research Scientist and Assistant
Professor of Anthropology, University of Arizona
PAS 277
520-626-3619
ghodgins@physics.arizona.edu

Address:

Department of Physics
University of Arizona
1118 E. Fourth Street
PO Box 210081
Tucson, AZ 85721

Date of Presentation: 6/18/2013 **Length of Presentation:** 9:00AM - 10:30AM

Location:

NSF-Arizona AMS Laboratory
Physics Building
1118 East Fourth St.
PO Box 210081
University of Arizona
Tucson, AZ 85721-0081, USA

Overview:

In this presentation, students and teachers learned about the absolute dating technique of radiocarbon dating using Accelerator Mass Spectrometry (AMS). The tour of the lab covered where radiocarbon comes from, how it is used for determining the age of artifacts and organic materials, how samples are prepared, how the machine works, and how the measurement is transformed into a calendar age range. Students learned how this technique differs from the decay counting methods in that the amount of ^{14}C in the sample is measured directly, rather than by waiting for the individual radioactive decay events to occur. They saw how the enhanced sensitivity is achieved by accelerating sample atoms as ions to high energies using a particle accelerator, and using nuclear particle detection techniques.

Associated Activities:

Students tour the 3 MV AMS machine at the University of Arizona at the NSF-Arizona AMS Lab in the Physics building.

Skills and Concepts:

how archaeologists use absolute dating; what are carbon isotopes; limitations on samples and sample collection; how AMS works, how to get a radiocarbon date

PRESENTER: KAREN HUGHES

Contact Info:

Acting Chief Ranger
Montezuma Castle and Tuzigoot National
Monuments
928-567-3322 x223

Address:

527 S. Main St
Camp Verde, AZ 86322

Date of Presentation: 6/20-21/13

Length of Presentation: 2hour tours plus group hikes

Location: Montezuma Castle, Montezuma Well, and Tuzigoot National Monuments

Overview:

Karen Hughes organized personal guided tours with Park Rangers at Montezuma Castle and Tuzigoot N.M.s. The focus was on the Sinagua people, their architecture, culture and relationship to the local environment. Students studied central Arizona cultures that, although different from those in southern Arizona, also used local resources to meet their needs. They traded extensively with others throughout the region and, similar to the Hohokam and others, somewhat abruptly left their sites, dispersing through the region and altering their social and cultural structures.

Associated Activities:

Guided hikes through National Monuments, personal Q&As, opportunities for photo documenting sites

Skills and Concepts:

Identification and description of Sinagua cultural artifacts and practices, examination of local plant and animal resources

PRESENTER: MIKE JACOBS

Contact Info:

Archaeological Collections Curator
jacobsg@email.arizona.edu, 520-621-6312

Address:

Arizona State Museum / University of Arizona
PO Box 210026
Tucson, AZ 85721-0026

Date of Presentation: 6/17/2013 **Length of Presentation:** 1.5 hours

Location: Accession and Collections room, Arizona State Museum

Overview:

Mike Jacobs, the collections curator at ASM, introduced himself and his role at the museum. He had selected a variety of objects from the collection to showcase changes in technology through time and gave a short presentation on problem solving. Beginning with a handax over 100,000 years old, then showing atlatls, bows and arrows, swords, and ending in a rifle, he explained to the students how people used different technologies to solve similar problems in warfare and food procurement. He then showed them a variety of vessels, beginning with a bottle gourd and ending in a glass bottle to demonstrate how different peoples have tried to solve the problems associated with food storage and transport. Students handled the objects, asked questions, and took pictures with their iPads. Mike Jacobs then brought out a heavy piece of metal and asked the students what it was. It was part of a failed casting for a bronze mission bell found at Mission Guevavi, which the students had visited earlier in the year. He also showed the students an iron Spanish spear point found in the middle of the Sonoran desert, and explained to students the importance of keeping an eye out for those objects on ranches and letting archaeologists know about their presence.

Associated Activities:

Introduction to collections at ASM, Presentation on basic technological change.

Skills and Concepts:

technological change through time, how people solve the same problems with different technologies, preservation of collections at museums, objects as storytellers

PRESENTER: PATRICK LYONS, PH.D.

Contact Info:

Telephone: (520) 621-6276
Office: Arizona State Museum North
Room 308C
Email: plyons@email.arizona.edu

Address:

Arizona State Museum
University of Arizona
P.O. Box 210026
Tucson, AZ 85721-0026

Date of Presentation: 6/6/2013 **Length of Presentation:** 1 hour

Location: Conservation Lab

Overview:

In between conservation lab activities, Dr. Lyons gave a short presentation on the purpose of museums and what curators do and how that has changed over time. Students learned how museum exhibits are constructed and interpreted by curators who also manage access, research, and conservation of the museum's collections.

Associated Activities:

Lecture

Skills and Concepts:

museums as places of research, role of curators

PRESENTER: PATRICK LYONS, PH.D. (SECOND PRESENTATION)

Contact Info:

Telephone: (520) 621-6276
Office: Arizona State Museum North
Room 308C
Email: plyons@email.arizona.edu

Address:

Arizona State Museum
University of Arizona
P.O. Box 210026
Tucson, AZ 85721-0026

Date of Presentation: 6/11/2013 **Length of Presentation:** 2 hours

Location: Arizona State Museum

Overview:

Dr. Lyons gave the student group a tour of the Pottery Vault, a humidity and temperature controlled room created specifically to house the enormous Southwestern pottery collection at the ASM. Students were given a tour of the collection, and saw modern artists' pieces along side archaeological pots. Dr. Lyons explained that even though he is an archaeologist and his primary work is with prehistoric ceramics, he believed it is important to highlight modern artists' inspiration from prehistoric styles and their continued use of traditional techniques. The students learned that the changes in ceramic styles both today and in the past reflect both cultural innovations and continuity. The students were then given free time to explore the ASM's pottery exhibit, showcasing modern and prehistoric ceramics. They peered through microscopes to better see the different tempers in the pottery types, and took pictures with their iPads of particularly interesting pieces.

Associated Activities:

Tour of the pottery vault, Dr. Lyons' presentation on Southwest pottery, exploration of the pottery exhibit

Skills and Concepts:

cultural continuity and change, traditional ceramic techniques, the challenges of preserving archaeological collections, how archaeologists use style change through time to understand prehistoric cultural periods

PRESENTER: BARBARA J. MILLS AND BARNET PAVAO-ZUCKERMAN

Contact Info:

Professor and Director of the School of Anthropology, Haury Anthropology Building, Room 210
Tel: 520.621.6298
Fax: 520.621.2088
bmills@arizona.edu

Address:

School of Anthropology
University of Arizona
P.O. Box 210030
Tucson, AZ 85721-00030

Date of Presentation: 6/4/2013**Length of Presentation:** 3 hours**Location:** Haury Building 401, Southwest Lab**Overview:**

Dr. Mills and Dr. Pavao-Zuckerman presented introductory overviews on different parts of Southwestern history. Dr. Mills had students draw a timeline and gave an overview of the major periods in prehistory to orient the students. Included were the Paleoindian, Archaic, Early Agricultural, Early Ceramic, and Hohokam, characterized in particular shifts in technology and subsistence strategies. Dr. Pavao-Zuckerman presented an overview of the historical period in the Southwest and the beginning of the Spanish period, the Mexican period, and the American period in Tucson and how native peoples interacted with different groups of newcomers to area. Also discussed was the Anglo bias in the American school system, which is often downplayed the extent of Spanish expansion and influence in North America. Students drew timelines, took notes, and engaged in dialogue with the speakers. Both speakers emphasized the major contours of changes through time and how they were part of larger regional patterns.

Associated Activities:

Two interactive introductory presentations to Southwestern prehistory and history.

Skills and Concepts:

Why cultures change through time, agriculture in the Southwest, subsistence strategies, effects of European contact on native peoples, the extent of Spanish colonialization and its influence, the Columbian Exchange

PRESENTER: BARBARA J. MILLS, PH.D.

Contact Info:

Professor and Director of the School of Anthropology, Haury Anthropology Building, Room 210
Tel: 520.621.6298
Fax: 520.621.2088
bmills@arizona.edu

Address:

School of Anthropology
University of Arizona
P.O. Box 210030
Tucson, AZ 85721-00030

Date of Presentation: 6/13/2013 **Length of Presentation:** 4 hours

Location: Southwest Lab (Haury Building, University of Arizona)

Overview:

This lecture and discussion introduced different prehistoric and historic ceramics and reviewed archaeological questions that are addressed with ceramics (e.g., including function and cuisine & trade and interaction). Students also viewed a video on pottery making. The associated activities included hands-on opportunities to make a pot, sort ceramics, and consider vessel function. Key themes include: “Why are we doing the analysis (what anthropological questions are we addressing)?” and “How do we address those questions?”

Associated Activities:

- 1) Making a pot – Students build a small clay pot following a brief introduction of materials used to make pottery. Pots will be fired later.
- 2) Hands-on sorting of ceramics – Students sort through pot sherds, tabulate data and consider vessel functions from the sherds.

Skills and Concepts:

looking at assemblages rather than single objects; learning the process of pottery production; recognizing key attributes of ceramics such as form and surface treatment; tabulating data; making interpretations from tabulated data

**PRESENTER: NANCY ODEGAARD & TERESA MORENO
(HEAD AND ASSOCIATE CONSERVATOR)**

Contact Info:

Odegaard: Head, Preservation, and
Conservator Moreno: Associate Conservator
520-621-6314
odegaard@email.arizona.edu
tkmoreno@email.arizona.edu

Address:

Arizona State Museum 1013 E. University
Boulevard
Tucson, AZ 85721-0026

Date of Presentation: 6/6/2013**Length of Presentation:** 5 hrs**Location:** Conservation lab, Arizona State Museum, Room 125aN**Overview:**

In this full day visit, Dr. Odegaard and Teresa Moreno gave a tour of the lab and overview of preservation and conservation, their own backgrounds, and the importance of maintaining the integrity of an object so that it would not decay and could be used for future research. They also discussed the importance of documentation in conservation practice and how those ethics and practices have changed over time. The lab tour took the group through the steps of conserving an object, and included one researcher conducting tests on arsenic treated textiles. After lunch, the group returned for several hands-on activities and demonstrations on how to spot test materials to identify metals like lead and copper with handouts describing the procedure and chemical properties behind it. Students used their iPads to take pictures of objects they found interesting such as x-ray machines, ancient sandals, and broken Etruscan pottery. Finally, Nancy and Teresa broke the students and teachers into 4 groups and gave each group an ethical conservation dilemma. The students had to decide what was the appropriate action in cases of forgery, theft, and cultural sovereignty.

Associated Activities:

Presentation, lab tour, visit with researcher, chemical spot tests activity, Conservation Dilemma group activity,

Skills and Concepts:

applied chemistry, museum and conservation ethics, cultural sovereignty, introduction into conservation

PRESENTER: BARNET PAVAO-ZUCKERMAN, PH.D.**Contact Info:**

Associate Director and Associate Professor of
Anthropology, School of Anthropology
Associate Curator of Zooarchaeology, ASM
E-mail: bpavao@email.arizona.edu
TEL: 520.626.3989
Office: Arizona State Museum North, Room 215

Address:

School of Anthropology
University of Arizona
P.O. Box 210030
Tucson, AZ 85721-00030

Date of Presentation: 6/10/2013 **Length of Presentation:** 3 hours in the morning (9:00-12:00),
3 hours in the afternoon (1:00-3:00)

Location: Stanley Olsen Zooarchaeology Lab, and Arizona State Museum Room 309

Overview:

The lecture presented a general overview of zooarchaeology, a subfield of archaeology, which is the study of animal remains from archaeological sites. Zooarchaeologists are interested in the relationships between humans and animals in the past including such topics as human diet, food procurement strategies, domestication of animals, economics and trade, and use of animals in ritual contexts. Also covered are reconstruction of past environments, site formation processes, and what it can reveal about past human diet and activities. Analysis included past environments, including health, social stratification, movement, and animal products like grease and leather. The lecture presented the methods and tools zooarchaeologists use to identify and study animal bones and what kind of specialized knowledge is needed to identify animal remains and signs of human activity. Following the lecture was a tour of the Stanley J. Olsen Laboratory of Zooarchaeology at the Arizona State Museum which houses two modern comparative vertebrate collections with a total of more than 4,000 fish, bird, reptile, amphibian, and mammal specimens. The students learned how these reference collections of skeletons of modern, recently deceased “known” animals are used to identify the archaeological “unknown” fragments.

Associated Activities:

The hands-on activities include instruction and identification of basic mammal anatomy of common Sonoran fauna like jackrabbits, coyotes, and deer using comparative specimens. Students learn about the morphological differences between species and the adaptations to environmental and dietary adaptations these physical features reflect. They also learn about taphonomic and human alterations on bones, like gnaw marks, cut marks, hack marks, and fractures and what they mean to the zooarchaeologist.

Skills and Concepts:

What is zooarchaeology; subsistence practices; human connections to the environment; status, identity, and economics; basic mammal morphology

PRESENTER: ESTEE RIVERA-MURDOCK

Contact Info:**Address:**

Saguaro National Park-Tucson Mountain District
2700 North Kinney Road
Tucson, AZ 85743

Date of Presentation: **Length of Presentation:** 4 hours

Location: Saguaro National Park East and West

Overview:

On the first visit, Park Ranger, Estee River-Murdock, who is in charge of outreach at Saguaro NP and a major contributor to the program, led the group on a short hike through a wash that is only accessible with ranger supervision. Students partook in a “Quest” which includes reading clues that lead to points of interest including a baby saguaro cactus, point of geologic interest, pack rat nests, and petroglyphs. Student used their iPads to take pictures of each clue they found. The ranger then led the group in a petroglyph exercise where students drew their own symbol and explained what it meant to them. The group returned to the ranger station and ate lunch, and Estee led a discussion about why Latino families tend not visit the park often and brainstormed ideas with the students for solutions to increase visits. The group then went to the visitor center to view the orientation film and visit the museum to learn about the wildlife in the park.

Associated Activities:

Nature hike guided by poetry, park orientation film, independent exploration of the exhibit, ranger-led discussion of Latino national park visitation, dressing up in ranger uniforms

Skills and Concepts:

National parks and their purpose, how people can visit and access parks, what are “wilderness areas,” protecting parks and local vandalism, natural history of the Sonoran desert

PRESENTER: MARY ANN RUELAS

Contact Info:

Educator, Arizona History Museum,
maruelas@azhs.gov
520-617-1154
www.arizonahistoricalsociety.org

Address:

Arizona History Museum
949 E. 2nd st.
Tucson, AZ 85719

Date of Presentation: 6/28/2013 **Length of Presentation:** 2.5 hours

Location: Arizona History Museum

Overview:

First, the students explored the Rio Nuevo/Rio Viejo exhibit on the excavation of Mission San Agustin. Then, Mary Ann Ruelas prepared a panel discussion of archivists that worked directly with the history of the Latino communities in Tucson, in the form of photos, videos, and documents. The students and teachers were asked to describe some of their family history and their connections to Tucson. Major themes of the discussion were how people moved around, what history can mean to a person's identity, how family history from photo albums to home videos of quinceñearas were an important part of public and Latino history in the area, and finally how accessible these collections are to the students. The archivists emphasized how easy it is to copy photographs into the collection or to come visit and look up family histories. The students then explored the museum's exhibit on pre-railroad Tucson in the 1870s, which focused on a Mexican family, an Anglo family, and a Tohono O'Odham family. They used their iPads to take pictures of each other in period costume, in the outhouse, and carrying water pots on their heads like the Tohono O'Odham women did.

Associated Activities:

Panel discussion, tour of 1870s Tucson exhibit, exploration of Rio Nuevo/Rio Viejo

Skills and Concepts:

personal histories, historical archaeology, historical diversity of Tucson community, chicano/a identities, how to access and contribute to archival information

PRESENTER: BRIAN SOWLES

Contact Info:

San Xavier Docent Program

Address:

Docent Program
Patronato San Xavier
PO Box 522
Tucson, AZ 85702

Date of Presentation: **Length of Presentation:** 1 hour

Location: Mission San Xavier on the San Xavier Reservation

Overview:

The students first explored the area independently, hiking up a volcanic outcropping to a shrine. The group was then guided on a tour of the restored mission quadrangle and church. The tour included the courtyard and the museum as well as a discussion reviewing the construction and reconstruction of the mission over the years. The tour ended in the church where paintings (works of indigenous and Mexican painters) have been restored by Vatican conservators. The students explored the grounds, asked questions, and engaged in a critical discussion of how the focus on the European connection to the artwork brushes over the indigenous labor that went into the creating the mission. Fry-bread popovers, sold by a Tohono O’Odham family in the church courtyard, were purchased for a group meal.

Associated Activities:

Hike to shrine, tour of San Xavier museum and church, and popover lunch.

Skills and Concepts:

resilience of native communities through time; Catholicism and the mission system; art as communication of religious ideas; sample of local foods; missions as agricultural centers

PRESENTER: JIM WATSON, PH.D.

Contact Info:

Room 217N; 520-621-4794
watsonjt@email.arizona.edu

Address:

Arizona State Museum
The University of Arizona
1013 E. University Blvd.
P.O. Box 210026
Tucson, Arizona 85721-0026

Date of Presentation: 6/11/2013 **Length of Presentation:** 3 hours in the morning (9:00-12:00),
3 hours in the afternoon (1:00-3:00)

Location: Arizona State Museum Bioarchaeology Lab (University of Arizona campus); Arizona State

Overview:

Dr. Watson gave a general overview of bioarchaeology, which is the study of human remains from archaeological sites. Dr. Watson's lecture covered what the specialized study of human remains can reveal about past people. The lecture also discussed the basic information a bioarchaeologist can gather from human remains like skeletal inventory, metric measurements, estimations of age at death, sex, stature, skeletal anomalies, the identification of pathological conditions, and estimations of biological affinity or population relatedness. Dr. Watson spoke about the ethical considerations of studying human remains, especially in light of NAGPRA and how the Arizona State Museum administers the Arizona Antiquities Act and state laws concerning the discovery of human remains. The students learned how ASM fulfills these responsibilities and issues permits for archaeological work on state lands (lands owned or controlled by Arizona or any agent of Arizona), negotiates the disposition of archaeological human remains, maintains an archaeological site file, and provides repository services for the curation of archaeological collections.

Associated Activities:

Human bone quiz, where students and teachers rotated around the room's tables and tried to identify various bones; introduction to bioarchaeology powerpoint presentation; a mock bioarchaeology report, where students and teachers were put into 3 groups and had to identify the age, sex, and different pathologies on a real human skeleton like osteoporosis and healed broken bones; repatriation simulation, where students were given various roles to play in a discussion between government officials, archaeologists, and townspeople over whether or not a graveyard should be excavated.

Skills and Concepts:

ethics of handling human bone; status, identity, and nutrition in the archaeological record; state and federal burial laws; NAGPRA and how it applies to NPS; the importance of decendent groups

PRESENTER: SUSAN WELLS, WACC CURATOR

Contact Info:

susan_wells@nps.gov

Address:255 North Commerce Park Loop
Tucson, AZ 87545**Date of Presentation:** 6/25/2013 **Length of Presentation:** 3 hours**Location:** NPS Western Archaeological and Conservation Center**Overview:**

Susan Wells first introduced the group to the NPS Western Archaeological and Conservation Center, its purpose and mission, and how it is different from the Arizona State Museum (which houses collections from public lands). She then led the group on a tour of the facilities and collection room, where objects including furniture from an old ranch house, paintings, prehistoric sandals, radioactive sand, pottery, baskets and a myriad of other artifacts are housed in a climate controlled environment. She then spoke to the students about how she became an archaeologist and the opportunities for work and research in the Park Service.

Associated Activities:

Introductory presentation, tour of facilities and collection, career presentation

Skills and Concepts:

National Park Service conservation ethics, the purpose of conservation, what a repository is, recent history and prehistoric history in the Southwest

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1 June 3-7	3 Welcome & intro to summer program. Pre-history/history of the SW Guevavi dig review iPad setup & tech overview	4 Arizona State Museum Museum Quest Discovery Hunts Pottery Design A World Separated by Borders Gallery and Dialogue	5 Field Trip Day Casa Grande National Monument	6 Preservation & Conservation lecture, discussion & activity stations Presentation with museum director Conservation dilemmas activity	7 Field Trip Day Saguaro NP West
Week 2 June 10-14	10 Zooarchaeology Lecture & lab tour Bone ID and Sorting activity	11 Bioarchaeology Lecture & lab tour Ethics of handling human remains Bone ID and sorting activity	12 Western Archaeological Conservation Center	13 Pottery making Video Ceramics lecture & discussion Pottery Vault Tour Ceramic sorting	14 Field Trip Day San Xavier Mission guided tour
Week 3 June 17-21	17 Traditional Technology Atlatl throwing Flint knapping Lithics lab tour tool technology Museum Collection	18 Dating Day Radio carbon lab tour Tree ring lab tour Dating activity	19 Ethnobotany overview and activities Ethno lunch Archaeo-ethnobotany lecture & lab tour	20 Overnight Field Trip Montezuma Castle National Monument Camp at LoLoMai Campground	21 Field Trip (cont'd) Tuzigoot National Monument
Week 4 June 24-28	24 Anza Video El Presidio Tour Tour & Photo Activity	25 Field Trip Saguaro NP East	26 Desert Archaeology Lab Tour & activity UA admissions & college life	27 Field Trip Amerind Foundation	28 AZ Historical Society. Celebration dinner, presentations & ceremony



<p>Place photo here</p>	<p>Place photo here</p>
<p>1 What is this picture about? _____ _____ _____</p>	<p>1 What is this picture about? _____ _____ _____</p>
<p>2 Where is it on the timeline and why? _____ _____ _____</p>	<p>2 Where is it on the timeline and why? _____ _____ _____</p>
<p>3 How is it important to learning about ourselves? _____ _____ _____</p>	<p>3 How is it important to learning about ourselves? _____ _____ _____</p>