

A photograph of an archaeological excavation site. In the foreground, a large, deep, rectangular pit has been dug into the dry, brown earth. Several people are working around the pit. One person in a blue shirt and light blue pants is leaning over the edge, looking into the pit. Another person in a black hoodie and jeans is standing nearby. In the background, a large, multi-story adobe building with several windows stands under a clear blue sky. A large, open-sided wooden structure with a complex truss roof is positioned over the excavation area. To the left, a person in a grey uniform and cap is walking towards the pit, carrying a black bucket. A red bucket and a wheelbarrow are also visible near the pit. The overall scene is bright and sunny, suggesting a clear day.

Linking Hispanic Heritage Through Archeology

2015 PROGRAM REPORT AND RECOMMENDATIONS

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Summary



Linking Hispanic Heritage Through Archeology (LHHTA) is a program for Hispanic youth ages 14-18 years that uses regional archeology as a bridge to connect urban Hispanic youth and their families to their own cultural history. Through visits to National Parks, local museums, and university laboratories, students engage in the study of Southwest archeology from the prehistoric to the historical periods. They also look at (and participate in) present-day activities that evolved from past cultural practices.



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

Originally piloted in the summer of 2013 in Tucson, Arizona, a second LHHTA program took place during the spring of 2015. The National Park Service once again partnered with the Environmental Education Exchange (a local, community-based non-profit organization) to develop, organize and manage the program, and with the University of Arizona to provide the archeological expertise and resources. Additional funding for transportation was provided by the Western National Parks Association (WNPA).



Key partners in the program also included local experts and resource specialists (identified during the LHHTA 2013 pilot program) who offered additional opportunities for students to engage in history and archeology in the community through environmental education programs and community service projects.

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. In order to successfully complete the program (and receive their iPads), each participant creates and presents a personal digital story of their experiences in LHHTA.

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 continues to help 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, volunteering, and career opportunities within National Parks.
- Involving youth in healthy, outdoor recreation at their local National Parks.



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 archeologists are primarily associated with excavations, studying artifacts, and curating material collections, today many archeologists 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 - 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 was originally an outgrowth of a relationship between the National Park Service and the Environmental Education Exchange. During his tenure as Superintendent of the Juan Bautista de Anza National Historic Trail, Stan Bond, now Chief Archeologist for the National Park Service, had partnered with the EE Exchange on the development of a historical documentary on the Anza Expedition from southern Arizona to San Francisco, California. Knowing the depth of connections that the EE Exchange (now in its 24th year in Tucson) has in the local community and especially with local schools, Stan Bond reached out to Neil Markowitz, the Exchange's executive director as the logical partner for this high school-based initiative for Hispanic students. EE Exchange co-founder, Trica Oshant Hawkins, took lead responsibility for the program's development and implementation. An additional partnership was developed with the School of Anthropology

at the University of Arizona, involving both Dr. Barbara Mills and Dr. Barnett Pavao-Zuckerman. For the purposes of funding, Pat O'Brien, Ph.D., Cultural Resources Officer for the National Park Service and coordinator for the DSCESU, became part of the project planning team.

Susan Cross, Education & Outreach Manager at Western National Parks Association (WNPA), expanded the partnership by contributing critical funding support for van transportation.

Once the program commenced, the EE Exchange further reached out to expand the community partnerships to include high school resource personnel, directors and staff of various regional museums, and historical and archeological related educational institutions. The EE Exchange maintained those relationships after the pilot LHHTA ended, which greatly facilitated program development of the second LHHTA.



EVOLUTION OF LHHTA PROGRAMMING

The pilot for LHHTA was offered during the summer of 2013. Twelve high school students and two teachers were recruited and selected to participate. Recruitment was challenging as it turned out that many students were reluctant to commit in January to a program that would occur that coming summer. Early recruitment was necessary however, due to the spring field school component of the program. For that year's program, a kick-off meeting occurred in early February, followed by two weekends on an excavation with the University of Arizona's Archaeology Field School at Mission Guevavi in southern Arizona. The excavation is a partnership between the University of Arizona and Tumacacori National Historic Park, and is led by Dr. Barnett Pavao-Zuckerman, Jeremy Moss (NPS archeologist), and Homer Thiel (Desert Archaeology, Inc.).

Following the spring dig, the pilot program took a three-month hiatus until the first week of June, when students' summer break commenced. LHHTA participants then met each day from 8:00 a.m. to 5:00 p.m., Monday through Friday, for the entire month. Due to unforeseen events, several students who had

attended the spring field school dropped out at the beginning of the summer program. Some were replaced quickly with other applicants but given the late notice, the summer program ended up with only 10 students. It became clear that graduating seniors were not a good choice for the program as, come graduation, two had to work to help support their families and one was offered a scholarship which required participating in a summer course. Additionally, having students commit in January to a full month of daily meetings in June appeared to be a key factor for the low numbers of applicants.

Thus, when funding became available to offer a second season of LHHTA (LHHTA-2015), consideration was given to other scheduling options for the program. It was decided that the EE Exchange would offer the program in the spring of 2015, during the school semester, and work around students' schedules. By meeting after school and on weekends as opposed to every day for a month in the summer, it was hoped that more students would be able to commit to the program. Indeed, once the program started, of the 12 students who were selected for the

program, only one dropped out after the initial meeting due to work conflicts. She was quickly replaced by another applicant, after which all 12 students stayed engaged with the program for the duration.

When scheduling began for LHHTA-2015 however, a downside of the spring program became evident. Some facilities previously visited were not open during the late afternoons or on Saturdays. Personnel either had to agree to stay open late or come in on a Saturday to meet with the students or that site was not visited during LHHTA-2015. Additionally, absences were higher than during the summer program as many students were also involved in school and extra-curricular activities. None-the-less, a full and successful program was conducted through the spring of 2015. This report overviews the key elements and highlights of that program: LHHTA-2015.



LHHTA-2015

Program Development



RECRUITING AND HIRING PROGRAM INTERNS

With funding from the National Center for Preservation Education, the EE Exchange was able to hire two interns for the LHHTA-2015 program. Thus, recruiting and hiring interns was one of the first tasks of program development. An intern announcement was sent out to archeology students at the University of Arizona and two were selected from among the applicants. Both were University of Arizona students studying with Dr. Pavao-Zuckerman with one (Fabiola Delgado) being a graduating senior and the other (Brandi Bethke) a Ph.D. graduate student. Interns assisted in student recruitment, scheduling, technology, and general planning and logistics. This year's interns were exceptional with each contributing to the program in unique and valuable ways. With the myriad of logistics for this program, intern help is crucial. Fabiola and Brandi were assets to the program and contributed to its success.

RECRUITMENT OF PARTICIPANTS

The EE Exchange, with intern help, began the process of recruiting area high school students and teachers for the spring program in November of 2014. Many of the recruitment documents were revised from the previous year's LHHTA program, streamlining that part of the effort. (See *Appendix A for LHHTA-2015 Recruitment Flyers and Forms.*) The recruitment process included:

- Development of a program announcement
- Meeting with area high school contacts
- Creation of a LHHTA website (<http://lhhta.weebly.com>) including website content

- Dissemination of the announcement via email to selected high schools, EE list-serves, colleague and teacher contacts, website posting, Tucson Unified School District Mexican American Studies list-serve, and postings at public libraries
- Development of an information letter and application form
- Responding to interested applicants (answering questions and sending forms)
- Conducting phone interviews with highly qualified applicants
- Contacting references
- Selecting participants (12 students and 2 teachers)





OUTREACH TO PROJECT PARTNERS AND SCHEDULE DEVELOPMENT

Referring to the contact reference list retained from the LHHTA pilot, inquiry emails were sent to regional resource specialists to determine their availability for this year's program. These resource specialists and organizations all expressed fond memories from the previous year's program and were pleased to be a part of LHHTA-2015. And once again, they offered their services and time gratis or for a very nominal fee, and graciously shared their expertise, ideas, opportunities and resources. Because this year's meetings were during the late afternoon and early evenings (when some facilities and labs were closed) several partners agreed to work late, or come in on a Saturday to meet with the students. This is testament to the positive relationships developed and to the value these partners place on the LHHTA program. The process for this year's outreach and scheduling was as follows:

- Review (from previous year's contact lists) and select National Parks, museums, university labs and other resources to include in this year's program. Research and consider potential new partners.
- Create a revised contact list for all potential program partners and places for 2015.
- Re-connect with previous program partners and reach out to new potential partners. This entailed meetings, phone calls, and emails with Park Rangers, lab personnel, museum directors, archeology specialists, and other resource specialists to discuss this year's program options, continue to build relationships, consider opportunities, and set programming dates.

- Secure meeting space with project partner, Dr. Barbara Mills, who once again approved her "Southwest Lab" as the LHHTA classroom.
- Develop a program calendar listing events, labs, field trips, etc. from mid-February to mid-May. (*See Appendix B for the LHHTA-2015 Calendar.*)
- Arrange transportation from local a van rental company.
- Submit appropriate written requests for fee waivers from various National Parks and local museums.



LHHTA-2015

Program Implementation

OVERVIEW

For the LHHTA-2015 program, students, teachers, and staff met weekly from Mid-February to Mid-May. Meetings were on Wednesdays in the late afternoon and all day on Saturdays. The Southwest Archaeology Lab at the U of A was again offered by Dr. Barbara Mills and became the primary meeting place for the group before departing to various labs and some field trips. Wednesday afternoon-evening meetings were all on campus or within walking distance of the classroom. Saturday meetings allowed for all-day excursions and usually involved driving the group (in a WNPA sponsored 15-passenger van) to a nearby National Park, museum or other site visit. This year, students all found their own transportation to meetings, either being driven by parents or driving themselves.





Daily attendance for LHHTA-2015 was lower than in the pilot program. During recruitment and at our first meeting, the LHHTA-2015 program schedule was reviewed. A couple of very qualified applicants had been declined because of their already full schedules. Once the program started, it became very clear that some flexibility in attendance would be necessary in order for most of the applicants to attend at all as nearly all the students and both teachers were involved in other extra-curricular activities. All LHHTA participants were very motivated individuals and were fitting the program into their already busy lives. Students and teachers were asked to submit days they knew they would be absent. Excuses were granted for sports competitions, mariachi performances, and conferences.

While some absences had been expected, additional unexpected absences did occur. One student experienced kidney stones and missed the campouts and several meetings. Two students had perfect attendance.

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. Students were given their iPads on the first day to use as a tool to document their experiences and to create a digital story to be presented at the end of the program. A LHHTA blog-site was created and at the end of each day (when an Internet connection was available), students posted captioned photos onto the blog-site (*see Engaging Through Technology for a description of the use of iPads in the program*). Additionally, after each session, the group convened and each participant (including staff) shared their day's experiences in a "community circle" gathering. These activities (the photo blog and daily reflection) gave students time to process and reflect on their experiences and offered staff the opportunity to gain immediate feedback on the day's activities.

SITE VISITS AND ACTIVITIES

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

- U of A Spring Field Archeology School at Mission Guevavi
- Field Trips to National Parks and Monuments
- U of A Lectures and Labs
- Arizona State Museum Activities
- Other Area Sites and Programs
- Community Service Projects
- Overnight Camping Trips

(For a detailed description of activities and focal concepts associated with each of these program components, see Appendix C - Contacts and Related Programs Overview.)



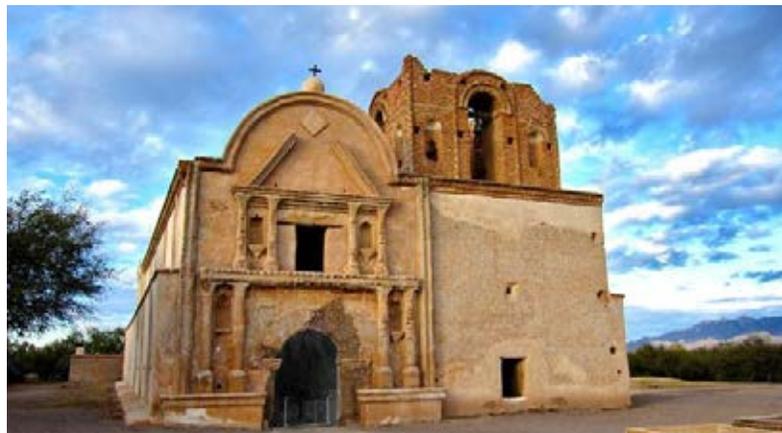
UNIVERSITY OF ARIZONA SPRING FIELD ARCHAEOLOGY SCHOOL AT MISSION GUEVAVI

In March, a full month after the program commenced, students and teachers once again had the unique opportunity to participate in the 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 Homer Thiel (Desert Archaeology, Inc.).

Students participated in on-site excavations on two separate weekends, working side-by-side with university students, graduate students, and archeologists. They learned about the systematic collection of artifacts and the importance of documentation and provenience in archeological research. At Guevavi, students excavated and screened at a mission-period adobe structure and uncovered what was likely a mission corral, where they found a variety of artifacts including lithics, bones, and ceramics. During the Guevavi trip, the group also visited Calabazas, a nearby mission similar to Guevavi but better preserved, and the standing, well preserved structure of Mission Tumacacori (a National Historical Park).



At Tumacacori, students also saw the replanted mission orchard and were acquainted with the Kino Heritage Fruit Trees Project, a program that aims to replant and keep alive orchard trees that date back to stock brought to the new world by Padre Kino, the priest who originally established the area missions. On the second weekend at Guevavi, students camped out with the U of A field school participants at Rancho Santa Fe, a ranch proximate to the dig site that hosted the field school.





FIELD TRIPS TO NATIONAL PARKS, MONUMENTS, & TRAILS

Students visited eight different National Parks, Monuments, and Trails through the program. Park Service personnel (from Supervisors to Park Rangers) were contacted in advance to coordinate personalized tours, programs or community service projects 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 WNPA sponsored, fifteen-passenger van was used to transport participants to the National Parks (and on other field trips). As part of the program, students and teachers were also given National Park Passports to record their visits to National Parks. At each new Park visited, participants eagerly looked forward to stamping their passports.

* * *

"Saguaro East (was my favorite Park) because it was my first National Park that I attended."

* * *



This year, in addition to guided tours and/or activities, students participated in community service projects at two of the National Parks and Monuments visited: Casa Grande Ruins and Saguaro East. Both work projects, arranged in advance, were archeology-related. At Casa Grande, students made adobe and "recapped" some low wall structures. At Saguaro East, students cleared off the foundation of an old CCC bathhouse.

"The most engaging activity was restoring the walls at Casa Grande."

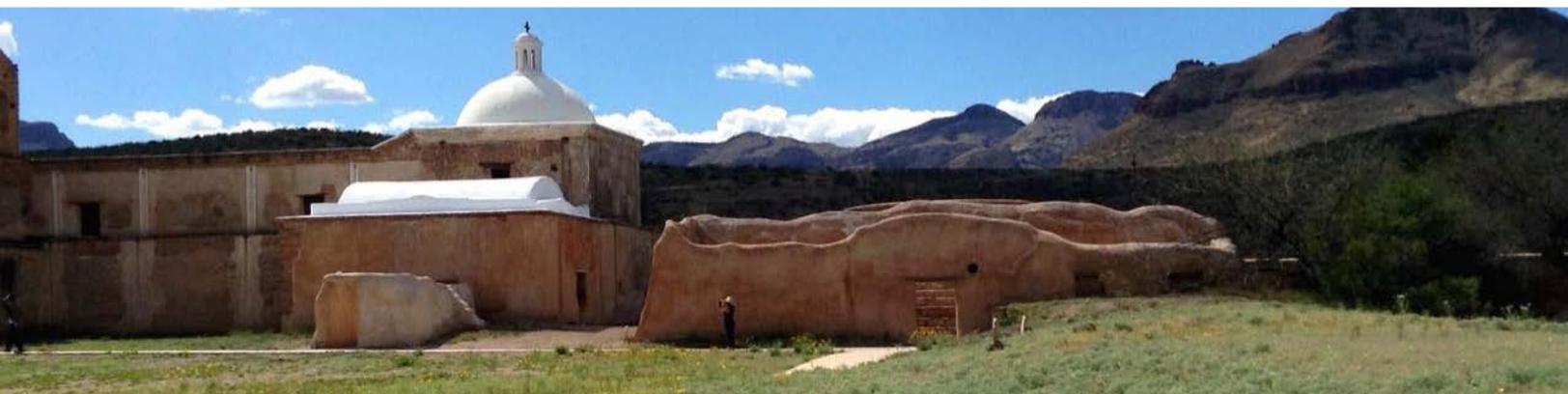
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"Casa Grande (was my favorite National Park) because I was able to make adobe and actually work at the monument."



NATIONAL PARKS, MONUMENTS, & TRAILS VISITED:

- Saguaro National Park (East)
- Saguaro National Park (West)
- Tumacacori National Historical Park
- Casa Grande Ruins National Monument
- 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 U of A allowed for access to a diversity of archeology professors, laboratories, and associated resources. Each lab visited 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.



U OF A LECTURES AND LABS VISITED:

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



ARIZONA STATE MUSEUM

The State Museum (on the U of A 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 Mike Jacobs, Archaeological Collections Curator, Teresa Moreno, Associate Conservator at the Museum, and a variety of other Museum staff. Additionally, the museum has an activity called the "Museum Quest," a type of information "treasure hunt" that requires a smart phone or pad device to complete. It was a great opportunity for students to use their iPads as tools as they downloaded QR readers on their iPads to do the Museum Quest. The Arizona State Museum continues to be a dedicated and valuable partner in the LHHTA program.

ARIZONA STATE MUSEUM ACTIVITIES:

- QR Code Museum Quest
- Preservation and Conservation
- Curated Collections Tour
- Atlatl throwing on the Museum Lawn



OTHER AREA SITES AND PROGRAMS

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 SITES VISITED:

- Arizona Historical Society
- Mission Gardens
- El Presidio de San Agustin

Two visits were made to the Arizona Historical Society this year. The first was during an afternoon meeting to give students a "behind-the-scenes" tour of the Society's archives. The following Saturday, students met there again to tour the rest of the museum and to conduct a research activity in the archives. Students enjoyed visiting the Society's archives and museum and ranked it high in their evaluations. For all 12 students, it was their first time to use a card catalog. Several students wanted to volunteer at the Historical Society after the LHHTA program and/or visit the archives for personal research.

* * *

"We got the opportunity to play dress up and step in the shoes of those before us."





A new partner this year, Mission Garden, offered the students a tour of the garden and an opportunity to participate in another Community Service Project. Because Mission Garden is similar to the orchard at Tumacacori, students were able to make the connection between the missions (both of which are along the Santa Cruz River) and people's need to grow their own food at these settlements. Students contributed by helping to spread mulch in the Hispanic Garden section of the "Timeline Garden."

Because of time and/or scheduling constraints, four area sites that were visited in 2013 were not visited in 2015. Those were San Xavier Mission, the Amerind Foundation Museum, Western Archeological and Conservation Center (WACC), and the Desert Archaeology Lab.



OVERNIGHT CAMPING/FIELD TRIP

Two overnight camping/field trips were organized to provide students a bonding experience with each other and the natural environment and to be able to visit National Parks and Monuments in Central Arizona. A WPNA funded, fifteen-passenger van transported the students and an additional van carried camping gear. The first campout occurred during the Guevavi Field School excavation. Tents were provided for all the students and they camped with the U of A students at a ranch close to the dig site. The second campout took place during the trip to central Arizona where students visited Montezuma Castle and Montezuma Well National Monuments the first day, and Tuzigoot National Monument the next. Students camped at a private campground in the area.



Two of the students and one of the teachers had never camped prior to this trip. The campsite was next to a stream and the campground had a swimming pool and shower-house to help ease new campers into the out-of-doors experience. The campout included setting up (and taking down) tents, building a camp oven, meals prepared by the students, fire making, s'mores around a campfire, making "survival bracelets," telling stories, and some free time. Even with rain during dinner and through the night, this was a very enjoyable experience for all and proved to be a great bonding experience for the group. It also allowed access to National Parks in Central Arizona that would have been difficult (if not impossible) to visit in a one-day outing.



PROGRAM ELEMENTS

As discussed previously, several elements for processing and sharing experiences were built into the program. These were revised from the pilot LHHTA program to further engage students in technology and deepen students' daily reflection. These elements are discussed below:

ENGAGING THROUGH TECHNOLOGY

All participants of the LHHTA program received iPads to be used as tools for recording and documenting their activities. This year, the "apps" deemed necessary for students during the program were downloaded in advance of giving the iPads to the students. These apps included iMovie, iPhoto, and Keynote, all of which can be used to manage photos and videos and create movies and presentations.

Students were assigned personal iPads to use throughout the program. After each meeting, students handed the iPads back in to be safely stored and recharged until the next meeting. Students were allowed to take the iPads home for the first time following the second 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 QR reader and a variety of journaling, research, and writing apps. Students were not allowed to download or play any games on their iPads during the program and all students honored that request. Two "workshops" were held to familiarize students with their iPads as tools and to teach the basics of iPhoto and iMovie.





They were quickly adept at using the iPads to take notes during lectures, and to photograph, film, and annotate events. 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 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.

LHHTA STUDENT BLOG SITE

The LHHTA Blog site

<http://lhhtablog.tumblr.com> proved to be a great way for students to engage in technology as they regularly shared their experiences and photos to the site. Everyone in the program (including students, teachers, and staff) had access to post on the blog site. The site also allowed parents and partners the opportunity to see student postings during the program.

DAILY REFLECTION

After each session, the group convened and each participant (including staff) shared what they saw and did, what they learned, and what they will do with their new knowledge. This activity was particularly powerful and effective in creating deep bonds among the group as participants shared with honesty and depth. The sharing revealed the profound levels of engagement students experienced with both the people and places visited. As previously mentioned, the daily reflection gave students time to process and reflect on their experiences and offered staff the opportunity to gain immediate feedback on the day's activities.

GRADUATION CEREMONY

As with the pilot LHHTA program, a graduation ceremony was held at the end of the program. Saguaro National Park West again hosted the ceremony at the Red Hills Visitor Center. Guests were served a catered Mexican dinner, viewed students' and teachers' digital story videos, and LHHTA-2015 students received graduation certificates. Teachers received professional development certificates. Over 60 people attended the ceremony, including participants' families, EE Exchange staff, interns, National Park staff, and project partners.



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. As well, student and teacher evaluations 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.

(For the complete evaluation results, see Appendix D – LHHTA-2015 Program Evaluation: Results and Discussion.)

LHHTA-2015 Program Development Discussion



INTERNS

Interns were crucial to this program, assisting EE Exchange staff in all elements of the program. Their fresh ideas and technical savvy contributed to program success. Additionally, interns benefitted from the program. They broadened their experiences in the field, made contacts with resource specialists, and gained experience in community outreach, program development, and education techniques.

RECRUITMENT AND ATTENDANCE

Once again, because of the EE Exchange's broad range of contacts in the community, a wide net was cast in search of applicants. As well, since the program was targeting participants that were of Hispanic descent, efforts were focused on schools and neighborhoods with high proportions of Hispanics. This year, as a result of contacts made during the pilot program, the director of the Mexican American Studies Program for Tucson Unified School District (TUSD) posted the LHHTA-2015 recruitment announcement on the TUSD list-serve and had her assistant (who was a teacher-participant in the pilot LHHTA) visit key schools to promote the program. Even with this extensive recruitment effort however, there were still relatively few applicants (a total of 25 students applied). A discussion with one teacher revealed that the extensive application form can

be daunting for some. As well, there were some students who wanted to apply but missed the deadline. Interestingly, this year, Internet connection did not appear to be a communication problem with students. All students had email addresses and most responded to email queries. Some students who were unable to email their application, hand-delivered it to the EE Exchange office. None-the-less, the students who were selected were very well suited to the program, thus even with the low numbers of applicants, those that did apply were of high quality and committed to the program.

Even though all 12 students selected remained for the duration of the program (following an initial replacement of one after the first meeting), there were more absences this year than in the pilot program. This was clearly due to extracurricular activities. The kinds of students and teachers interested in LHHTA are those with many interests. The high absence rate was a direct result of conducting LHHTA-2015 during the school year.



PROGRAM PARTNERS

The relationships developed during the pilot LHHTA program proved valuable for LHHTA-2015. Because a contact list was previously developed and relationships were maintained in the interim, reaching out to the various partners for this year's program was a streamlined process. The success of the pilot LHHTA also inspired project partners to eagerly participate again as they recognized the value of the program to students and the Hispanic community, as well as the partnerships forged. That several program partners were willing to meet with the students outside of normal work hours was testament to their support of and commitment to the program. Partners have also asked about opportunities to partner on future LHHTA programs and other projects.

PROGRAM SCHEDULE

"Don't do it during school because I had a lot of homework."

* * *

Conducting LHHTA-2015 during the school year versus the summer has given the EE Exchange an insightful comparison of the benefits and challenges represented by each option. While a program during the school year did see full retention of participants, absences were higher and opportunities for getting together were fewer. Meeting times were limited and some program providers were unavailable during meeting times and were thus left out of LHHTA-2015. Below, the benefits and challenges of summer versus spring program are listed:





SPRING PROGRAM

BENEFITS

- **Easier recruitment** – More students are willing to commit to a program that they will participate in immediately rather than start in the summer (5 months away).
- **Retention** – Because absences were tolerated, students committed to the program for the duration.
- **Availability of presenters** – Presenters were not away on summer vacation.

CHALLENGES

- **High absences** – Students missed more sessions due to extracurricular activities and homework. Students and teachers would have been unable to commit to a perfect attendance requirement.
- **Scheduling** – With meeting times limited to after school or on weekends, some potential sites to visit were closed.

- **Fewer contact hours** – In discussion with school contacts during planning, it was decided that teachers and students could not commit to meeting more than twice a week. Working around school schedules limited opportunities to meet to after school and weekends. This reduced the amount of time program participants could get together during one semester.
- **Student stress** – Although students were committed to the program, they did express that it was stressful on them to juggle studies and this program. LHHTA students are mostly high achievers and studying and doing well in school is important to them.
- **End of semester conflicts** – In addition to regular student stress, the demands placed on students for end-of-semester tests and activities became evident in May. Adding the digital story assignment at this time was very challenging to students. As well, some students missed activities due to prom and/or AP testing, which, given that students came from various schools, was difficult to schedule around.

SUMMER PROGRAM

BENEFITS

- **More opportunities to get together** - Not having to limit meetings times to afterschool or weekends allows for more time to get together.
- **Less stress on participants** - Students and teachers are free of school stress and extracurricular demands.
- **Meetings during working hours** – Meeting during the week offers the ability to visit sites when they are normally open.

CHALLENGES

- **Recruitment difficulties** – Students are reluctant to commit in the winter for a summer program (5 months away).
- **Program cohesion from winter to spring** - Students who commit in late winter / early spring might have some unforeseen conflict arise come summer time.
- **Availability of resource specialists** – Some university resource specialists are away during the summer.
- **Summer heat** – Temperatures in the summer in the Tucson area make outdoor hiking and work projects very difficult. Physical activity is best scheduled during early morning hours.
- **Working students** – Some students must work during the summer and highly qualified students may not be able to attend.





LHHTA-2015 PROGRAM DEVELOPMENT RECOMMENDATIONS:

- Continue to include interns in future programs.
- Use all contacts/partners for future recruitment efforts.
- Continue to maintain relationships with project partners that contributed to the program.
- Consider offering a combined spring - summer program. If the program is offered primarily in the summer but includes student participation in the spring field dig, consider having meetings once or twice a month throughout the spring for program cohesion and to hold student interest. If the program was conducted from early spring into the summer, there would not have to be concurrent end-of-semester / end-of-program demands. Additionally, summer meetings would not need to be every day, all day.

LHHTA-2015 Program Implementation Discussion



SITE VISITS AND ACTIVITIES

All of the site visits and lab activities were very engaging this year. Because of the limited meeting times, some lab visits were much shorter than in the pilot and in some cases, felt rushed. In most cases, the part that was cut was the extensive lecture portion (a revision based on pilot evaluations). As well, because of either lack of meeting days or the inability for a resource specialist to meet after hours, several sites that were visited in the pilot were not visited in 2015. The ones that were missed most in this case were the lithics lab (as lithics were brought up in other contexts but students never had the opportunity for an in-depth study of the field) and Mission San Xavier del Bac (students mentioned they would have liked to have gone there).

A very valuable component to the program was the spring field school dig at Mission Guevavi. At the dig, students work in the field with archeologists and university students. Many students ranked this very high in their evaluations. This was truly an opportunity to give students hands-on experience in archeology. This year the dig occurred a month into the program so there was adequate background information in advance and students had begun to bond with one another prior to their field experience. This made for a richer experience at the dig site.

"We all worked and got to try out different jobs that occur at an archeological field school."

* * *

"The most engaging activity was the U of A dig site because it gave me full hands-on to history."



Again, the visits to the National Parks ranked very high on the student and teacher evaluations and were one of the most compelling components of the program. As a program goal is to better acquaint students with National Parks, it was noticeable this year that their National Park experiences were especially rich. With the addition of community service projects, students were able to engage even more in their National Parks.

* * *

"It is important to get involved in your community and preserve the history that remains."

* * *

"It is nice to be able to help make and also preserve history."



Students really enjoyed the tour and community service project at Mission Garden, a new site to the program. The Garden also ties with the Mission Orchard at Tumacacori, thus adding to program cohesion. Having Mission Garden right in the students' backyards and proximate to the Anza National Historic Trail offers many future program opportunities connecting the two historic sites.

Student comments and evaluations once again demonstrated just how important the overnight camping trip was to them. All students said it helped with group bonding as well as the chance for them to bond with the natural environment. Again, the camping trip allowed the group to travel farther from Tucson and visit National Parks and Monuments that would be difficult to see in a day outing.

* * *

"I think the overnight field trips were important because it helped us all bond as a unit."

PROGRAM ELEMENTS

As previously discussed, program elements this year included Engaging through Technology with the iPads, postings on the LHHTA Blog Site, and Daily Reflections. Again, the iPads proved to be an essential element of this program. Students became very engaged in presentations 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 their iPads to document and process their experiences. Students' comments and evaluations reveal how highly they valued the iPads in the program.

* * *

"It helped me remember everything we did and it made me appreciate everything we saw."





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.

* * *

"Originally, the free iPad was what made me want to join, but after being in the program, I was more interested in the archeology rather than the iPad. And the iPad was really useful for pictures."

* * *

The iPads also allowed for immediate access to photos taken by the students. Students posted photos to the Blog Site and were able to share their experiences with friends and family with the technology. The Blog Site was also a way for students to process their day's experiences by reviewing their photos and considering those that they wanted to share and why they wanted to share them.

Testament to the value of the iPads is also the final digital story projects submitted by the students. These programs, ranging from 3 to 6 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. This year, given the reduced meeting opportunities, students had less time to practice and refine their movie making. Although the quality of the content in the videos is very high, students' inexperience is evident in the video productions. It is clearly very important to give students and teachers adequate time for training and practice in iMovie.

Student videos may be viewed by visiting:

https://www.youtube.com/playlist?list=PLsHI8_br8YN9QZL3GJMWULc2AY4nfx4wq

The image shows a screenshot of the YouTube channel page for Environmental Education Exchange (EEEExchange). The channel banner features the logo and the text "environmental EDUCATION EXCHANGE" over a background of a butterfly and green foliage. Below the banner, the channel name "EEEExchange" is displayed, along with navigation tabs for Home, Videos, Playlists, Channels, Discussion, and About. The "Uploads" section is visible, showing a grid of 12 video thumbnails. Each thumbnail includes a title, a duration, and a view count. The videos are titled "LHHTA 2015" followed by a student's name. The thumbnails show various scenes related to archaeology, including people working at a site, a skeleton, a large earthen structure, and a group of people sitting on the ground.

Video Title	Duration	Views	Posted
LHHTA 2015 - Lucero	5:26	No views	1 week ago
LHHTA 2015 - Kristen	5:12	1 view	1 week ago
LHHTA 2015 - Jaret	4:37	No views	1 week ago
LHHTA 2015 - Dominique & Richard	7:40	2 views	1 week ago
LHHTA 2015 - Daniel M	3:00	No views	1 week ago
LHHTA 2015 - Daniel L	3:07	No views	1 week ago
LHHTA 2015 - Vicente	3:50	No views	1 week ago
LHHTA 2015 - Tahari	5:22	No views	1 week ago
LHHTA 2015 - Sheila	5:23	No views	1 week ago
LHHTA 2015 - Paige	3:01	No views	1 week ago
LHHTA 2015 - Oscar	2:12	No views	1 week ago
LHHTA 2015 - Nicolas	6:04	No views	1 week ago



The Daily Reflection activity included in this year's program was also a valuable way to process and share experiences at a deep and personal level. This not only helped students personally reflect on their experiences, but also helped with group bonding.

The graduation ceremony was once again a valuable and moving event. Students and their parents were very grateful. Students were proud of their videos and were happy to share their experiences. To acknowledge everyone's accomplishments in LHHTA is an important part of the program.



LHHTA-2015 PROGRAM IMPLEMENTATION RECOMMENDATIONS:

- Continue to minimize extensive lectures.
- Continue to build community service projects into future programs.
- Maintain relations with Mission Garden and seek ways to include Anza National Historic Trail into programs with the Gardens.
- Include overnight camping trips (including expenses) in future LHHTA programs.
- Continue to include iPads in future programs.
- Build time into the program for more training on the creation of digital stories with iMovie.
- As was practiced in the pilot and LHHTA-2015, 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.)
- Continue to have a Blog Site for student postings. Consider enhancing the site and encouraging students to post more detailed captions.
- Keep a Daily Reflection activity in future programs. Be sure to allow time for the reflections at the end of each session.
- Keep the Graduation Ceremony to recognize student and teacher achievement.

Evaluation Highlights



At the conclusion of this program students and teachers were asked to complete evaluations of LHHTA-2015. Eleven out of the 12 students and both teachers completed evaluations for a total of 13. These evaluations focused on key elements of the program targeting the following themes: repeat and recommendation, attitudes and learning outcomes (specifically about NPS, archeology, and culture), iPad use, and the evaluation of activities. (*See Appendix D for the complete LHHTA-2015 Program Evaluation – Results and Discussion.*) Below are some highlights from the evaluations:

REPEAT AND RECOMMENDATIONS

When asked if they would want to participate in LHHTA again, 12 out of 13 participants would like to repeat the program. All 13 of the participants would recommend the program to their friends and colleagues.

NATIONAL PARK SERVICE - ATTITUDES AND LEARNING OUTCOMES

All students and teachers agreed that as a result of this program, they were more interested and aware of National Parks and were more likely to visit a National Park on a vacation. Overall, the program helped all students and teachers to better understand the NPS's role in protecting archeological resources.

* * *

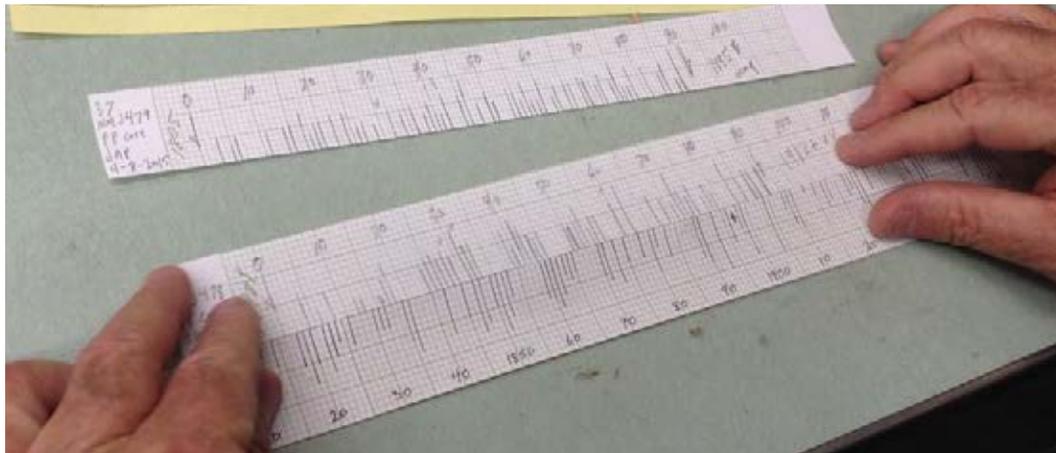
"My National Park passport will be a big help in exploring other parks!"

CULTURE - ATTITUDES AND LEARNING OUTCOMES

All students and teachers agreed that as a result of this program, they gained a better understanding of and interest in their own culture as well as cultural influences in the southwest. Both teachers are more likely to include elements of culture in their teaching.

ARCHEOLOGY - ATTITUDES AND LEARNING OUTCOMES

All participants' interest, understanding, and knowledge of archeology increased as a result of this program. The majority of students also felt more confident in their ability to analyze and describe artifacts. Both teachers are more likely to include elements of archeology in their teaching.



iPADS

Students and teachers "constantly" used their iPads throughout the program, primarily to take photos. iPads were also used regularly to record videos, take notes, do Internet research, and work on video programs. All participants found their iPads to be useful during the program and intend to use their iPads "constantly" or "often" after the conclusion of the program.

* * *

"The iPad was a very useful tool that made this program much easier and more fun."

SITE VISITS AND ACTIVITIES

Students and teachers were asked to rank their favorite types of site visits from "most favorite" to "least favorite." The Overnight Camping Trips and Field Trips to National Parks were ranked highest and Lectures was ranked least favorite. However, several participants said they enjoyed everything and only ranked things because they were asked to do so. The results of the ranking are as follows:

1. Overnight Camping Trips
2. Field Trips to National Parks
3. Museum Tours
4. Activities
5. Service Projects
6. Labs
7. Lectures

* * *

(Camping) "...allows more bonding ties with the other members."

* * *

(Camping trips) "...helped me spend more time in nature which the people lived in."





RANKING OF ACTIVITIES

Students and teachers also ranked how engaging specific components of the site visits were. Overall, students and teachers found all activities to be engaging with the visits to Saguaro National Park East, and Montezuma Well and Tuzigoot National Monuments ranked as "very engaging."

* * *

"Saguaro East was one of my favorites because I got the opportunity to learn about the history in my own backyard."

STUDENT AND TEACHER COMMENTS FOR IMPROVING THE PROGRAM

"More time together."

* * *

"It was difficult to consistently go to every meeting during the school year, maybe it would be better to do this during summer."

* * *

"Make sure it can be done at a time when everyone can participate."

* * *

"Could add more campouts and visits to more National Parks."

Appendices



LINKING HISPANIC HERITAGE THROUGH ARCHAEOLOGY



Student Intern Announcement

Linking Hispanic Heritage Through Archaeology is seeking a motivated Student Intern to assist with the development and implementation of its spring program for high school students. The project involves participants in archaeological digs and artifact analysis; visits to National Parks, cultural and historical museums and archaeological labs; and participation in historical and pre-historical activities. The intern will be involved in all aspects of the program and will have the opportunity to work with archaeologists in the field and lab, participate in a variety of archaeological investigations, and work with cultural resources. The intern will also gain experience developing educational programs and working with students.

Position Start Date: October 2014

Position End Date: June 2015

Hours: 5-10 hours/week, times flexible, will include some weekends

Education / Experience / Interests

Applicants should:

- Enjoy working with youth
- Have some teaching skills and /or be comfortable speaking to groups
- Have good communication skills
- Be a currently enrolled, upper level student of archaeology, anthropology, natural sciences, or education
- Be proficient in Microsoft Office applications
- Have some interest in archaeology and Hispanic heritage

Duties and Responsibilities

- Assists program director with recruitment and management of program participants (high school students)
- Assists with on-going program development with partners providing resources and opportunities
- Presents program information to various audiences
- Coordinates presentations with program providers
- Manages program documents including calendar of events, background reading, etc.
- Works with participating high school students (teaching, mentoring, supervising)
- Provides general program support and assistance
- Attends program presentations, field trips, archaeological digs & lab visits

Benefits:

The selected intern(s) will receive a tax-free student stipend as well as gain valuable experience in archaeology and environmental education. The intern will also participate in all aspects of the program including visits to National Parks, museums and archaeological labs.

For more information and/or to apply, contact:

Trica Oshant Hawkins, Education Director
Environmental Education Exchange
thawkins@eeexchange.org
(520) 670-1442





LINKING HISPANIC HERITAGE THROUGH ARCHAEOLOGY SPRING 2015



ATTENTION HIGH SCHOOL STUDENTS!

Are you a motivated student interested in Hispanic heritage, Southwest culture and archaeology, and hands-on field and lab experiences?

Applications are currently being accepted for this exciting program that involves:

- learning about the history and prehistory of the Southwest
- visits to National Parks, cultural and historical museums, and archaeological laboratories
- participation in hand-on activities including archaeological digs and artifact analysis

The program runs from mid-February to mid-May with weekly activities.



Participants will receive (for keeps!) an Apple iPad mini which they will use throughout the program to document their experiences.

For an application and/or more information, contact Fabiola Delgado at:

fdelgado@eeexchange.org

(520) 670-1442



A program of the National Park Service, University of Arizona, and Environmental Education Exchange



LINKING HISPANIC HERITAGE THROUGH ARCHAEOLOGY SPRING 2015



ATTENTION HIGH SCHOOL TEACHERS!

Are you interested in Hispanic heritage, Southwest culture and archaeology, and hands-on field and lab experiences?

Applications are currently being accepted for this exciting program that involves high school students and teachers in:

- learning about the history and prehistory of the Southwest
- visits to National Parks, cultural and historical museums, and archaeological laboratories
- participation in hand-on activities including archaeological digs and artifact analysis



Participating teachers receive a \$1,000 stipend, Professional Development credit, and an iPad mini.

For an application or more information,
contact Trica Oshant Hawkins at:

thawkins@eeexchange.org

(520) 670-1442



A program of the National Park Service, University of Arizona, and Environmental Education Exchange

Linking Hispanic Heritage Through Archaeology Spring 2015 Program Information

General Information

Linking Hispanic Heritage Through Archaeology (LHHTA) is a program that connects Hispanic youth to their cultural history using regional archaeology as a bridge. LHHTA offers students and teachers the opportunity for hands-on, behind-the-scenes archaeological experiences in the field, in University laboratories, and at regional National Parks. LHHTA is a partnership program between the National Park Service, the University of Arizona and the Environmental Education Exchange, and is funded by National Park Service's Washington Office of Cultural Resources Stewardship and Sciences Program.

Calendar

- Applications due: December 3, 2014
- Kick-off meeting: Mid- February (to be announced)
- Spring program: The program will take place throughout the spring months from Mid-February through Mid-May (exact meeting days to be determined). The program will meet most Saturdays, several Wednesdays after school per month, and include at least one overnight campout.

Participant Benefits

- Travel to archaeological sites around southern Arizona.
- Participate in the Spring Field Dig at Guevavi with University of Arizona archaeologists and students.
- Visit working labs at the University of Arizona including zooarchaeology lab (animal bones), bioarchaeology (human bones), ceramics, lithics (stone tools), and conservation.
- Visit museums around Tucson including the Arizona State Museum, Arizona Historical Society, Amerind Foundation.
- Visit regional National Parks and Monuments including Saguaro, Tumacacori, Casa Grande, Montezuma Castle and Tuzigoot.
- Meet and work with UofA professors and National Park Service staff.
- Gain hands-on experience with cultural artifacts and the science behind archaeology.
- Receive an Apple Ipad and learn how to use it as a tool for documenting experiences.

What is Covered by the Linking Hispanic Heritage through Archaeology Program

- Round-trip travel expenses and transportation to all field sites
- Camping accommodations and all meals during overnight trips
- Admissions to all museums, National Parks, labs and historic sites
- Continued support and contact from other participants and staff in the program
- Apple iPad minis with sturdy cases

Requirements of Participation

- Attend all spring sessions
- Participate in all program activities
- Share aspects of iPad documentation with other program participants & staff

For additional information, please contact:

Student Applicants: Fabiola Delgado
Phone: (520) 670-1442
Email: fdelgado@eeexchange.org

Teacher Applicants: Trica Oshant Hawkins
Phone: (520) 670-1442
Email: thawkins@eeexchange.org

LINKING HISPANIC HERITAGE THROUGH ARCHAEOLOGY Student Application Form

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

Applications may also be emailed to: fdelgado@eeexchange.org

Application deadline is December 3, 2014.

Personal Information

Full Name: _____ Preferred Name: _____

Street Address: _____

City, State, Zip: _____

Home phone: _____ Student mobile: _____

Student's email: _____

Date of birth: _____ Gender: Female _____ Male _____

Please rank your preferred methods of communications (from 1=best to 3=least):

_____ Phone call

_____ Text

_____ Email

Do you have internet access at home? Yes No

What race/ethnicity do you most identify with?

_____ Hispanic/Latino _____ Native American, Alaskan Native

_____ White/Caucasian _____ Hawaiian or other Pacific Islander

_____ African American _____ Asian
 _____ 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

High school: _____

What year in high school are you in currently?

_____ Freshman _____ Sophomore
 _____ Junior _____ Senior

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: _____

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:

How did you hear about this program?

- Teacher Flyer
 School counselor Fellow student
 Online 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 succeed 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 2015 Recommendation Form

Student's Name: _____

Home address: _____

City/State/Zip: _____

School: _____

The above student is applying for Linking Hispanic Heritage through Archaeology -- a program that involves high school students in Southwestern archaeological activities. The program is offered through a partnership of the National Park Service, the University of Arizona, and the Environmental Education Exchange. As a selected reference, please provide the following information to help us in our selection process:

Your Name: _____

Title: _____

Organization: _____

Phone: _____ email: _____

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.

How would you rate the applicant's ability to succeed in this program?

 Excellent Very good Satisfactory Unsatisfactory

Signature: _____ Date: _____

Other comments:

**Linking Hispanic Heritage Through Archaeology
Teacher Application - Spring 2015**

Please print or type. You may use additional paper if necessary.

Name: _____

Home address: _____

City/State/Zip: _____

School Affiliation: _____

Phone number: _____

What classes (if any) do you teach? (Note: If you do not teach in the classroom, please explain how you otherwise interact with students.)

How will you use the information gained from this program in your classroom / work?

What makes you a good match for this program?

What other special programs, if any, have you participated in?

Do you have any physical disabilities that would interfere with your participation on an archaeological dig? Please explain.

Are you able to commit to participating in activities each week (including some Saturdays) from Mid-February to Mid-May? Please explain any expected conflicts.

Please provide one reference from your school or district.

Reference Name: _____

Title: _____

School Affiliation: _____

Phone and/or email: _____

Please email or mail completed form to: Trica Oshant Hawkins / thawkins@eeexchange.org / EE Exchange / 738 N. 5th Ave., Suite 100 / Tucson, AZ 85705

Applicant Last Name _____ First Name _____

NATIONAL PARK SERVICE & UNIVERSITY OF ARIZONA CONSENT FORM

PARTICIPANT MUST SIGN THIS FORM IN ORDER TO PARTICIPATE

CONSENT FOR PROGRAM PARTICIPATION:

I acknowledge that there are risks inherent in any outdoor-related program, including but not limited to injury or death arising from: participation in outdoor activities, failure to follow instructions of supervisors, communicable illness, and independent acts of third parties not under the control of the LHHTA Program staff. In order to minimize risks to myself and other participants, I will take responsibility to see that I am 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 my family physician, or the emergency contact named below. However, in the event that 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 me. I agree to pay for any charges for emergency medical treatment that are not covered by my personal health insurance.

Emergency Contact _____ Phone _____

Health Insurance Co. & Policy No. _____ Phone _____

Family Physician _____ Phone _____

For your 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. THESE RULES HAVE BEEN IMPLEMENTED TO MAKE THE PROGRAM A SAFE AND SUCCESSFUL EXPERIENCE FOR THE STUDENTS, YOU, OUR STAFF, AND THE FACILITIES UTILIZED AS PART OF THE LHHTA PROGRAM.

- I agree that I will comply with the LHHTA Program rules, standards and instructions for teacher 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 may be caused by my failure to comply with such rules, standards and instructions.
- LHHTA meets regularly on Saturdays and Wednesdays from Mid-February through Mid-May. An outside job or activity that would interfere with full participation in 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 and teachers 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 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 FOR PROGRAM EVALUATION

I authorize and permit the staff of this program to contact me 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 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 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 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 _____

Appendix B
LHHTA-2015 Spring Calendar

Day	Date	Times	Meeting Location	Notes
we	Feb. 11	5:30 pm-7:30 pm	Haury Room 408	Kick-off / Intro Meeting
sat	Feb. 21	8am - 4pm	EEExchange Office	Field Trip Saguaro National Park East
we	Feb. 25	4:30 pm-6:30 pm	Haury Room 408	Guevavi Intro/Ipad Training
sat	Feb. 28	9am - 4pm	Haury Room 408	Arizona State Museum
we	March 4	4:30 pm-6:30 pm	Outside Haury Building	AZ Historical Society
sat	March 7	9am - 4pm	Haury Room 408	AZ Historical Society/Conservation Lab
sat	March 14	7am-5pm	EEExchange Office	Guevavi Dig/Field School Day
sat	March 20-21	12 noon Friday – 5pm Saturday	EEExchange Office	Field School/Campout/Tumacacori
we	March 25	4:30 pm-6:30 pm	Haury Room 408	ZooArch Lab
we	April 8	4:30 pm-6:30 pm	Haury Room 408	Radio Carbon/Tree Ring Labs
sat	April 11	8am - 4pm	EEExchange Office	Field Trip/Saguaro NP West/CCC Service Project Dig
sat	April 18	8am - 4pm	EEExchange Office	Casa Grande
we	April 22	4:30 pm 6:30 pm	Haury Room 408	Bioarch Lab
sat	April 25-26	8am Saturday – 6pm Sunday	EEExchange Office	Overnight Camping: Montezuma Castle, Montezuma Well & Tuzigoot NPs
we	April 29	4:30 pm-6:30 pm	Haury Room 408	Ceramics Lab
sat	May 2	8am - 4pm	EEExchange Office	Mission Garden
we	May 6	4:30 pm-6:30 pm	Haury Room 408	Lab Time/Video Work
sat	May 9	5pm – 8pm	Saguaro West	Graduation

Appendix C - Contacts and Related Programs Overview**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: 4/8/2015**Length of Presentation:** 4:30 PM – 5:30 PM**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: HOMER THIEL

Contact Info:

Project Director, Desert Archaeology
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hthiel@desert.com

Address:

3975 North Tucson Blvd.
Tucson, AZ 85716

Date of Presentation: 3/20-21/2015**Length of Presentation:** 5 hours**Location:** Archaeological Field School at Mission Guevavi**Overview:**

Homer Thiel gave the LHHTA group a tour of the archaeological site and pointed out the excavated area. This site is located in the grounds of the 18th century Spanish mission Los Angeles de Guevavi. Mr. Thiel also gave a summary of the artifacts, features and material remains from prehistorical and historical context, found in previous excavations. Students were able to learn about the history of the Southwest and the beginning of the Spanish period, the Mexican period, and the American period in Tucson by exploring how native peoples interacted with different groups of newcomers to the area. The group had the opportunity to excavate side by side with archaeologists, instructors and students from the University of Arizona. Students were able to sift through dirt and identify ceramics, animal remains and lithics. They used their iPads to document their findings and their experience. Students learned how to write field notes and properly record features and artifacts found.

Associated Activities:

collect and records artifacts; identify features and difference in soil color; write field notes

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; why archaeologists study the past ?

PRESENTER: BARBARA J. MILLS, PH.D.

Contact Info:

Professor and Director of the School of
Anthropology, Haury Anthropology Building,
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bmills@arizona.edu

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School of Anthropology
University of Arizona
P.O. Box 210030
Tucson, AZ 85721-0030

Date of Presentation: 4/29/2015**Length of Presentation:** 4:30 PM – 6:30 PM**Location:** Southwest Ceramics 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). The associated activities included hands-on opportunities to 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:

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: BARNET PAVAO-ZUCKERMAN, PH.D.

Contact Info:

Associate Director and Associate Professor of
Anthropology, School of Anthropology
Associate Curator of Zooarchaeology, ASM
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TEL: 520.626.3989
Office: Arizona State Museum North, Room 215

Address:

School of Anthropology
University of Arizona
P.O. Box 210030
Tucson, AZ 85721-0030

Date of Presentation: 3/20/2015

Length of Presentation: 4:30 PM – 5:30 PM

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: MELANIE RAWLINGS**Contact Info:**

Park Ranger, Tumacacori National Park
520 377-5064

Address:

Tumacacori National Park
PO Box 8067
Tumacacori, AZ 85640

Date of Presentation: 3/14/2015**Length of Presentation:** 3 hour**Location:** Mission Calabazas, Mission Guevavi and Mission Tumacacori Tour**Overview:**

Ranger Melanie Rawlings gave the group a tour of Calabazas, Mission Guevavi and Tumacacori. Students were able to learn the history and connection between these three ruins. Mission San Jose de Tumacacori was established in 1691 and Los Santos Angeles de Guevavi in 1701. Later, in 1756, Mission San Cayetano de Calabazas was founded but was later used as a farm. Common themes of discussion centered on issues dealing with the preservation of these ruins. Keeping as much as the original structure is often the goal but preserving them can lead to unwanted modifications. This tour is only given a few times a year because of the lack of resources. This raised another important point in the group discussion: how much access should the public have to these sites? There is also the problem of looting and vandalism. Students asked relevant questions and used their iPads to take notes.

Associated Activities:

hike, tour of Calabazas and Mission Guevavi; tour of Tumacacori museum and church

Skills and Concept

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: ESTEE RIVERA-MURDOCK

Contact Info:

Park Ranger, Community Engagement,
520 733-8613
Esther_Rivera@nps.gov

Address:

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

Date of Presentation: 2/21/2015 & 5/3/2015

Length of Presentation: 8 hours

Location: Saguaro National Park East and West

Overview:

Park Ranger, Estee River-Murdock, who is in charge of outreach at Saguaro NP and a major contributor to the program, organized both visit to Saguaro East and West. On the group's first visit to Saguaro National Park east, they were able to learn about the history of the park, including the Hispanic homesteaders of the area. Ranger Ario Ogden lead the students on a break hike through a wash that is only accessible with ranger supervision. After lunch the group then went to the visitor center to view the orientation film "Hispanic Heritage Video" and visit the museum. Finally, Ranger Kira Pon lead the group on a garden walk about the native plants of the area, outside the Visitor Center. Students were able to learn about the Saguaro and it's life span. On Saguaro National Park west Ronald Beckwith took the time to organize a project, where students excavated an old CCC site.

Associated Activities:

Nature hike, 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: 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: 4/22/2015

Length of Presentation: 5:30 PM – 6:30 PM

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; a mock bioarchaeology report, where two groups of students and teachers had to identify the age, sex, and different pathologies (such as osteoporosis and healed broken bones) on a real human skeleton.

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 decedent groups

PRESENTER: DEB DECOVIS

Contact Info:

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

Address:

527 S. Main St
Camp Verde, AZ 86322

Date of Presentation: 4/25-26/15**Length of Presentation:** 2hour tours plus group hikes**Location:** Montezuma Castle, Montezuma Well, and Tuzigoot National Monuments**Overview:**

Deb DeCovis organized guided tours at Montezuma Castle and Tuzigoot NMs. 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

PRESENTERS: LAUREN KINGSTON & MIKE YELTER

Contact Info:

520 723-3172

Address:Casa Grande Ruins NM
1100 W. Ruins Drive
Coolidge, AZ 85128**Date of Presentation:** 4/18/2015**Length of Presentation:** 5 hours**Location:** Casa Grande Ruins NM1100 W. Ruins Drive
Coolidge, AZ 85128**Overview:**

Lauren Kingston met the LHHTA group in the visitor center, and then led the group to the tour guide. Mike Yelter gave a short presentation on the importance of multiple voices when telling the story of Casa Grande, various Native American oral traditions, and archaeological and historical interpretations of the site. 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. They were also able to participate in a preservation project with the guidance of Lauren Kingston.

Associated Activities:

orientation video; presentation on working for the Park Service; tour of the ruins; museum visit; preservation project in which students applied layers of adobe mud to the wall of the Casa Grande ruins

Skills and Concepts:

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

PRESENTER: MACKENZIE MASSMAN

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

Date of Presentation: 2/28/2015**Length of Presentation:** 10:00 AM – 1:00 PM**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 "Curtis Reframed: The Arizona Portfolio," toured the Pottery Vault 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 students compose their own pottery designs and symbols using what they have learned earlier in the day; walk through "Curtis Reframed: The Arizona Portfolio" photo exhibit

Skills and Concepts:

the 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

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: 3/4/2015**Length of Presentation:** 4:30 PM – 5:30 PM**Location:** Arizona History Museum**Overview:**

First, the students explored the Rio Nuevo/Rio Viejo exhibit on the excavation of Mission San Agustin. 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

PRESENTER: LIZETH ZEPEDA, LAURA HOFF & CAITLIN LAMPMAN

Contact Info:

Archivists, Librarians, Arizona History Museum
www.arizonahistoricalsociety.org

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

Address:**Date of Presentation:** 3/7/2015**Length of Presentation:** 4 hours**Location:** Arizona History Museum**Overview:**

Lizeth Zepeda, Laura Hoff, and Caitlin Lampman are archivists who 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. Student were broken up into groups of three to reasearch a particular topic. The topics ranged from Latino Activist organizations/Latino activists to Barrio Viejo in Tucson/Urban Renewal. Student was asked to give a short presentation about their particular topic to the rest of the group.

Associated Activities:

online and card catalog; research and presentations; group projects

Skills and Concepts:

historical archaeology; how to access and contribute to archival information

Appendix D

LHHTA-2015 Program Evaluation

Results and Discussion

At the conclusion of this program, students and teachers were asked to complete evaluations of LHHTA-2015. Eleven out of the 12 students and both teachers completed evaluations for a total of 13. These evaluations focused on key elements of the program targeting the following themes: repeat and recommendation, attitudes and learning outcomes, iPad use, and the evaluation of activities.

Repeat and Recommendations

Both teachers and students were asked whether they would participate in the LHHTA program again and if they would recommend the program to friends and colleagues. Overall, 12 out of 13 students and teachers would participate in the program again and 13 out of 13 would recommend the program to their friends and colleagues. The one student who replied that he would not want to attend again also stated that he really enjoyed the program but didn't like that it was during the school year as he had so much homework.

Attitudes and Learning Outcomes

Questions regarding attitudes and learning outcomes were divided into three separate themes: National Park Service, Culture, and Archaeology. For each of these themes different questions were asked of the student and teacher participants. Questions for students focused on their individual learning outcomes while questions for teachers focused more on how they may apply what they learned from the program to a classroom setting.

Student Results and Discussion

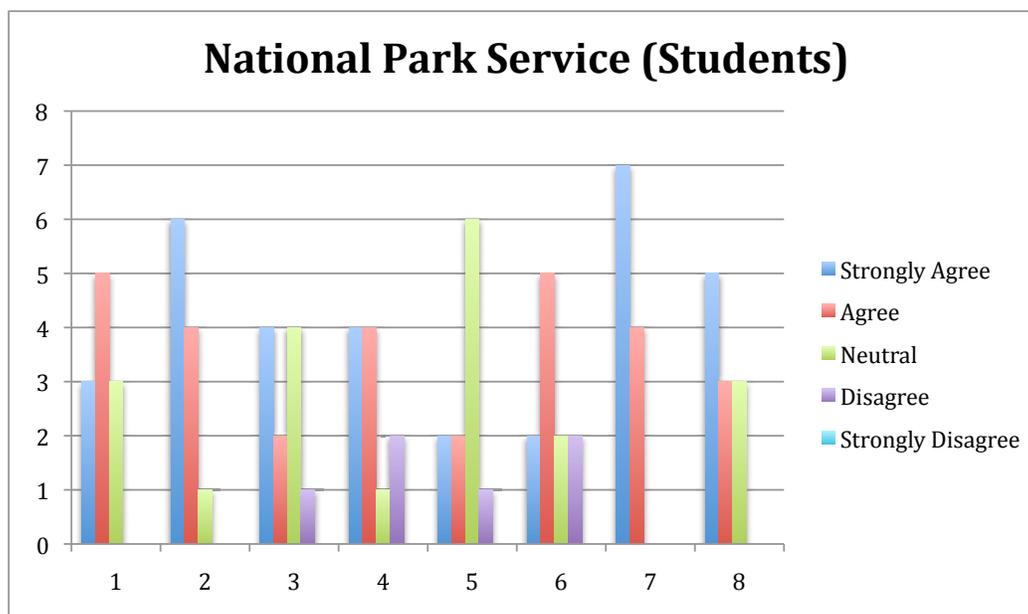
National Park Service

Students were asked eight questions about their experiences with the National Park Service through this program. Those questions were as follows with the responses displayed in the chart below:

As a result of this program...

1. I am more interested in National Parks.
2. I am more aware of our region's National Parks.
3. I am more likely to visit a National Park on a vacation.
4. I can name and describe several National Parks in Arizona.
5. I will visit a National Park in the next 6 months.
6. I am more interested in a career with the National Park Service.
7. I understand NPS's role in protecting archaeological resources.

8. I am interested in an internship or volunteering with a National Park.



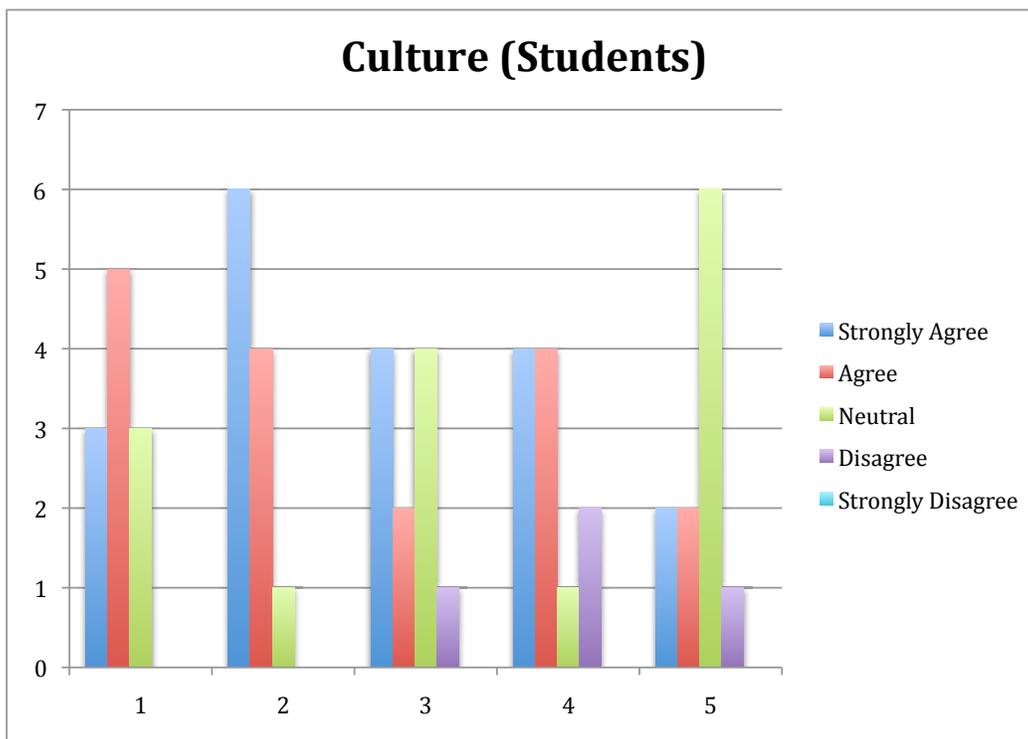
The results show that the majority of students are more interested in National Parks and more aware of National Parks in the region. While all students either “strongly agree” or “agree” that they are more likely to visit a National Park on a vacation, the majority are neutral as to whether they would visit a National Park in the next six months. While many students were more interested in a career with the NPS as a result of the program, two were not. The program did help all students to better understand the NPS’s role in protecting archaeological resources. Interest in internships or volunteering with NPS also increased as a result of LHHTA.

Culture

Students were asked questions regarding how the program impacted their cultural knowledge and understanding. Those questions were as follows with the responses displayed in the chart below:

As a result of this program...

1. I am more interested in my own heritage.
2. I can describe ways the early Spaniards impacted the native cultures of the southwest.
3. I can describe some native foods used by different cultures in the southwest.
4. My knowledge of Tucson’s Hispanic heritage improved.
5. I can list and describe Spanish influences on present day culture in the region.



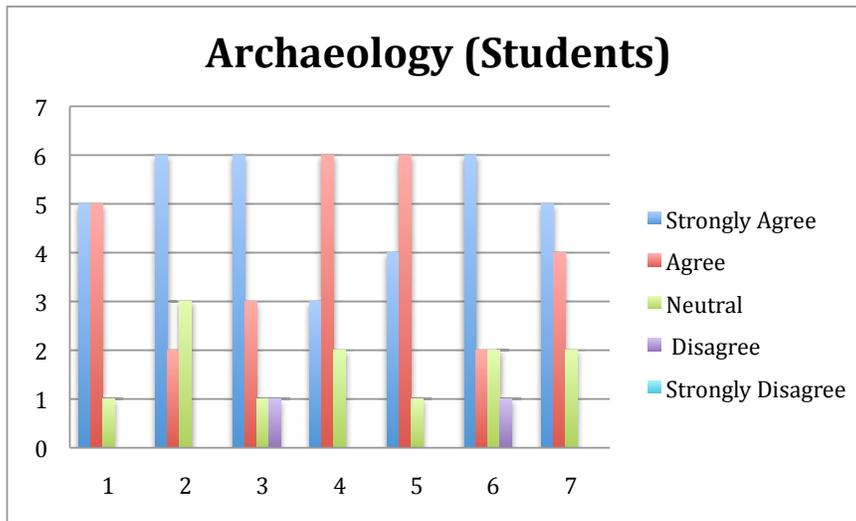
The results show that students clearly gained a better understanding of their own culture as well as cultural influences in the southwest. It is likely that the two students that did not feel like they learned about native foods in the southwest were the two that were absent the day that information was covered.

Archaeology

Students were asked questions regarding how the program impacted their knowledge and understanding of archaeology. Those questions were as follows with the responses displayed in the chart below:

As a result of this program...

1. I am more interested in the field of archaeology.
2. My knowledge of the field of archaeology has greatly increased.
3. I can confidently explain what archaeologists do.
4. I can list and describe some human cultures that lived in the southwest over that last 10,000 years.
5. I can analyze artifacts for information about human cultures and practices.
6. I can list and describe artifacts and their uses by different cultures in the southwest.
7. I can describe how artifacts are excavated in an archaeology dig.



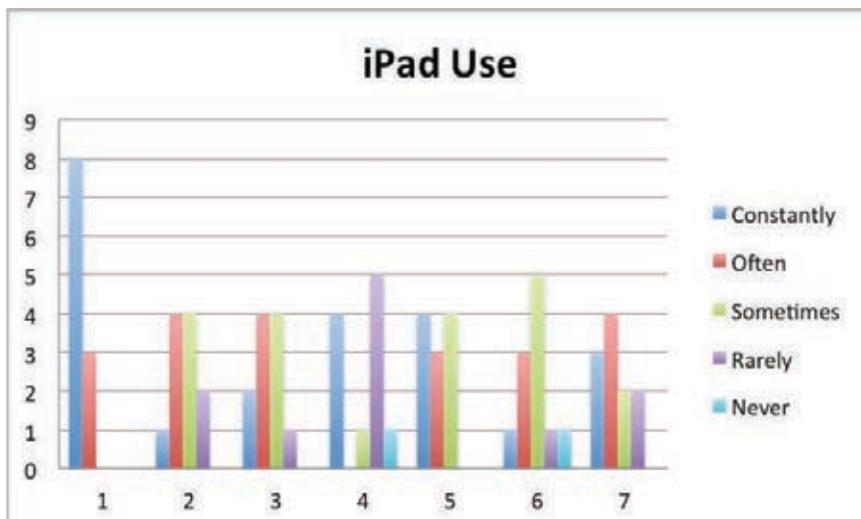
The results show that student interest, understanding, and knowledge of archaeology increased as a result of this program. The majority of students also felt more confident in their ability to analyze and describe artifacts.

iPad Use

Students and teachers were also asked to gage the degree to which they used iPads for various activities throughout the program. Those activities are listed below and the responses are displayed in the following chart:

Activity

1. Took pictures
2. Recorded video
3. Uploaded pictures to the LHHTA blog
4. Checked or wrote email
5. Took notes
6. Did Internet research
7. Created slide/video program



It is clear that students were using their iPads primarily to take pictures. This is evident not only in the evaluation results, but also from observations during the program. It was surprising that students used their iPads less to take video. The results in general show that students were using their iPads during this program as the tool for which it was intended.

In addition to *how* they used their iPads, students and teachers were also asked to rank how useful they found their iPads as they participated in the program and how often they expected to continue to use the iPads after the end of the program.

Overall (9 out of 11), students and teachers found their iPads to be “very useful” as they navigated the program. Two ranked their iPads as “useful.” Also, the majority of teachers and students (7) plan on “constantly” using their iPads after the conclusion of the program. The rest (4) intend to use their iPads “often.”

Teacher Results and Discussion

Teacher evaluation questions varied from the student questions and were as follows for the three different areas:

National Park Service

As a result of this program...

1. I am more interested in National Parks.
2. I am more aware of our region’s National Parks.
3. I am more likely to visit a National Park on a vacation.
4. I can name and describe several National Parks in Arizona.
5. I will visit a National Park in the next 6 months.
6. I am more interested in a career with the National Park Service.
7. I understand NPS’s role in protecting archaeological resources.
8. I am interested in an internship or volunteering with a National Park.

Culture

As a result of this program...

1. I am more interested in my own heritage.
2. My knowledge of Tucson’s Hispanic heritage improved.
3. I am more aware of local opportunities for the study of culture and cultural resources.
4. Students’ knowledge of Tucson’s Hispanic heritage improved.
5. I am more likely to include elements of cultural heritage into my teaching.

Archaeology

As a result of this program...

1. I am more interested in the field of archaeology.
2. My knowledge of the field of archaeology has greatly increased.

3. I am more likely to include elements of archaeology in my teaching.

As there were only 2 teachers, results are not displayed in chart format. As well, both teachers “strongly agreed” with *all* of the statements except for statement #7 under National Parks: I understand NPS’s role in protecting archaeological resources, in which case that teacher just “agreed.”

Evaluations of Site Visits and Activities

Favorite Site Visits

The final portion of the evaluation covered the site visits and activities in which students and teachers participated. For this portion of the evaluation, students and teachers were asked to rank their favorite types of site visits from “most favorite” (1) to “least favorite” (7). On average, the Overnight Camping Trips and Field Trips to National Parks were ranked most favorite, and Lectures was ranked least favorite. The results of the ranking are as follows:

1. Overnight Camping Trips
2. Field Trips to National Parks
3. Museum Tours
4. Activities
5. Service Projects
6. Labs
7. Lectures

Students and teachers clearly liked the camping and visits to National Parks the most. Some students noted that they liked everything and ranked things only because they were asked to do so.

Ranking of Activities

Students and teachers were then asked to rank how engaging specific components of these site visits and activities were from “most engaging” (1) to “not at all engaging” (5). Ranked elements were averaged with the following results:

State Museum

- Museum Quest and Discovery Hunt – 2 (engaging)
- Preservation and Conservation Lab Discussion – 2 (engaging)
- Visit to curator’s lab (seeing the atlatls and sloth dung) – 2 (engaging)

U of A Labs (Hands-on activity)

- Zooarchaeology – 2 (engaging)
- Bioarchaeology – 2 (engaging)
- Pottery / Ceramics – 3 (neutral)
- Radio Carbon – 2 (engaging)

- Tree Ring – 2 (engaging)

Other Area Museums & Labs (Rank the places below from 1 to 5 [1 being VERY engaging])

- Mission Gardens Tour – 2 (engaging)
- Mission Gardens Community Service (spreading mulch) – 2 (engaging)
- Arizona Historical Society Archive Tour – 2 (engaging)
- Arizona Historical Society Archive Activity – 2 (engaging)
- El Presidio de San Agustin Tour – 2 (engaging)

National Parks and Monuments (Rank the Parks below from 1 to 5 [1 being VERY engaging])

- Casa Grande – 2 (engaging)
- Saguaro (West) – 2 (engaging)
- Saguaro (East) – 1 (very engaging)
- Tumacacori – 2 (engaging)
- Montezuma Castle – 2 (engaging)
- Montezuma Well – 1 (very engaging)
- Tuzigoot – 1 (very engaging)

The results show that teachers and students found nearly all the activities to be “engaging.” Only pottery was ranked “neutral.” It is interesting to note that Saguaro National Park East, and Montezuma Well and Tuzigoot National Monuments were all ranked “very engaging.” The day that students participated in the pottery lecture and activity was actually the last official class meeting. Students were anxious about school and getting their digital stories completed. It is likely that their level of engagement in this activity was influenced by these distractions. Students were not asked why they specifically engaged more in some activities than others, but it must be noted that the days at Montezuma Well and Tuzigoot were particularly gorgeous, with a light drizzle and stunning clouds. The sheer beauty of those places on the days visited was indeed captivating – a very difficult thing to measure.

Linking Hispanic Heritage Through Archaeology Spring 2015

What to Bring (Saturdays)

- Lunch (no refrigeration will be available)
- Water bottle
- Sunscreen
- Comfortable clothing for outdoor activities
- Sturdy, comfortable, close-toed shoes
- Hat
- Jacket or sweatshirt
- Any necessary medications in quantities sufficient for either one or two days
- A backpack large enough to hold above items plus an iPad mini

What to Bring (Wednesdays)

- Snack
- Water bottle
- Backpack or bag (optional)
- Most Wednesday meetings will be held indoors, we will inform you if this changes

Expectations

- Arrive on time and ready to go
- If you cannot attend any sessions let us know ahead of time
- Participate in all activities
- Respect presenters, teachers, other students, yourself, and your environment
- Follow the rules about iPad use
- Please inform us of any relevant medical conditions, allergies, or dietary restrictions before the beginning of the project

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Sheila Marquez

520-240-8317

Linking Hispanic Heritage Through Archaeology Field School Supply List

- Please pack and bring your **LUNCH!** (For the first Saturday and the following Friday)
- Bring a refillable **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, small pen knife or multi-tool, small first aid kit, Marshalltown trowel

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 20-21 – Note: if you do not have any of these items, let us know immediately and we will secure what is needed)

- Tent (we will supply tents but if you have your own you'd rather bring, let us know)
- 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
- Small towel (there will be no showers, but you may want a hand towel)
- Sleeping clothes

**Linking Hispanic Heritage Through Archaeology
Guevavi Overnight Field Trip – March 20-21, 2015
Packing List**

Our camping field trip will be to Guevavi Ranch, just north of Nogales, Arizona. We will depart from the EE Exchange office (738 N. 5th Ave.) at 8 am. **Bring a sack lunch** for our first day at Guevavi. Temperatures will be in the upper 80's during the day but will cool off significantly at night.

Clothes

You will only need enough cloths for 2 days. It will be warm during the day so dress accordingly. We will be working in the sun and dirt. Bring a light jacket if it cools off in the evening.

A suggested packing list:

- 1 pair shorts
- 1 pair lightweight long pants
- 1 lightweight long sleeve shirt
- 2 T-shirts
- 1 pair sturdy walking shoes (& socks) – tennis shoes are fine
- 1 pair sturdy sandals
- Lightweight jacket
- Bathing suit
- Towel

Camping Items

(Note: if you do not have any of these items, let us know immediately and we will secure what is needed)

- Eating kit: reusable plate, cup & utensils (**non-glass - plastic or metal is good**)
- Tent
- Sleeping bag
- Sleeping pad (thermorest or ground pad)
- Pillow
- Flashlight and/or head lamp

Other Personal Items:

- Toiletries
- medications (please report to Trica any medications)
- underwear
- Sleeping clothes
- Hat (for sun)
- sunscreen
- Backpack or other carrying bag (big enough for water bottle, iPad, etc.)
- **Water bottle (full)** (we'll have a large cooler to refill you personal bottles)
- Bandana
- Your cooling towel
- Sunglasses (optional but recommended)
- Personal snacks

Field Trip Permission Form

Linking Hispanic Heritage Through Archaeology

Dear Parent or Guardian,
Your child is going on an overnight field trip as part of the LHHTA Program. Please read the information at the top of this form, then sign and return the permission slip at the bottom of this form by March 14th, 2015

Field Trip Information:

Date: 12:00 noon March 20th – 5:00 pm March 21st.

Location: Guevavi Mission – (South of Tumacacori Mission) camping at Rancho Santa Fe (Nogales, Arizona)

Cost: There is no cost to families. Except for a sack lunch on Friday, all fees and food will be provided by the National Park Service.

Means of Transportation: 15 Passenger Van

Contact numbers: Trica Hawkins 520-400-2513 / Brandi Bethke: 605-321-2791 / Fabiola Delgado: 928-315-9919

Special Instructions: Students need to pack one small overnight duffel for clothing, etc. (refer to packing list), one small daypack, and bring a sleeping bag and pad. If necessary, sleeping gear will be provided.

Save this part of the form for future reference.

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Please complete and return this part of the form. Sign and initial where indicated.

Linking Hispanic Heritage Through Archaeology – March 20-12, 2015

_____ has my permission to attend this field trip.

My child is on the following medications and will be taking them during the trip_____

My child has the following allergies_____

I give my permission for my child, _____, to receive emergency medical treatment. In an emergency, please contact:

Name: _____ Phone: _____

Parent/Guardian Signature: _____ Date: _____

Field Trip Permission Form

Linking Hispanic Heritage Through Archaeology

Dear Parent or Guardian,
Your child is going on an overnight field trip as part of the LHHTA Program. Please read the information at the top of this form, then sign and return the permission slip at the bottom of this form by April 22th, 2015

Field Trip Information:

Date: 8:00 am April 25th – 5:00 pm April 26th.

Location: Montezuma's Castle National Monument, Montezuma Well, Lolomai Campground and Toozigoot National Monument

Cost: There is no cost to families. Except for a sack lunch on Thursday, all fees and food will be provided by the National Park Service.

Means of Transportation: 15 Passenger Van

Contact numbers: Trica Hawkins 520-400-2513 / Brandi Bethke: 605-321-2791 / Fabiola Delgado: 928-315-9919

Special Instructions: Students need to pack one small overnight duffle for clothing, etc. (refer to packing list), one small daypack, and bring a sleeping bag and pad. If necessary, sleeping gear will be provided. Our campground, Lolomai, has a swimming pool and students may bring a swimming suit if they wish to swim. You may read more about our campground here: <http://lolomai.com/>

Save this part of the form for future reference.

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Please complete and return this part of the form. Sign and initial where indicated.

Linking Hispanic Heritage Through Archaeology – April 25-26, 2015

_____ has my permission to attend this field trip.

_____ (initial) I understand that there will be opportunities to swim and that there are inherent dangers associated with water sports.

_____ (initial) I specifically give permission for my son/daughter to swim during this field trip.

My child is on the following medications and will be taking them during the trip_____

My child has the following allergies_____

I give my permission for my child, _____, to receive emergency medical treatment. In an emergency, please contact:

Name: _____ Phone: _____

Parent/Guardian Signature: _____ Date: _____



Linking Hispanic Heritage Through Archaeology

You're invited to a fun evening celebrating our LHHTA students and teachers

Join us for:

- Dinner
- Viewing participants' digital stories
- Graduation ceremony

Saturday, May 9, 2015 at 5 - 8pm
 Red Hills Visitor Center
 Saguaro National Park West

RSVP – Let us know how many in your family will attend. Call Trica: 520-400-2513



Project Partners



Western
National Parks
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