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Professional Development:
Interpretive Writing for Cultural Resources
April 4, 2019
TxDOT's Camp Hubbard
3712 Jackson Ave., Austin, TX 78731

2019 CTA Spring Meeting
April 5, 2019
Business Meeting and Presentations: Camp Mabry
Building 8, Austin, Texas

CTA Social: Picnic Area at Camp Mabry



TxDOT's Camp Hubbard (Photo credit: TxDOT 1966)

President's Forum

Dear CTA Colleagues,

Happy Spring! It seems like 2019 is flying by; we're already one-quarter through the year and things continue to look busy in the months ahead. Your Executive Committee (EC) and other members of key CTA committees have been working hard over the last year or so, and there will be a lot to discuss at the upcoming meeting. There is a lot of information in this newsletter, so please pay close attention to the issues that mean the most to you so that you're ready to participate.

Schedule

First, regarding the schedule. On April 4, TxDOT has agreed to provide a daylong training about public outreach in archeology. This workshop is limited to 30 participants (registration is closed at this point), and will involve a participatory, interactive format. This event will take place at TxDOT's Camp Hubbard facility, just across MoPac from Camp Mabry. See directions elsewhere in this newsletter for how to get there.

Our business meeting is scheduled for April 5 and will be back in the auditorium at Camp Mabry. As usual, we'll call the meeting to order promptly at 9:00 am. Come early if you still need to renew your membership; we'll have a table set up outside by about 8:30 am. We will have voting items on the agenda, and you will need to be a registered professional (Professional or Principal Investigator category) or student member to vote. Institutional members are ineligible to vote. Some details on what's on the agenda are presented below or elsewhere in this newsletter, but with a little luck we'll wrap up the business meeting by noon.

The afternoon session will start by about 1:30 pm, and will include two separate programs. The first includes two 30-minute presentations



dealing with the topic of historic cemeteries. First, Dr. Andrea Roberts (Assistant Professor of Urban Planning, Texas A&M University) will talk about her Freedom Colonies project. Briefly, this research into post-Emancipation Freedom settlements includes a GIS atlas of the locations of these freedmen establishments, many of which can be expected to have cemeteries associated with them. The second presentation will be by Dr. Ashley Lemke (Assistant Professor of Anthropology, University of Texas at Arlington), who will talk about her research into so-called "lost cemeteries." She will talk about how, over time, some cemeteries that were plotted on early versions of USGS or other historic maps were dropped from subsequent versions.

The second afternoon program is targeted specifically to our early-career CTA members. Kevin Miller (SWCA) will share his experiences and perspectives in terms of developing proposals, cost estimates, and scopes of work. It is often the case that the only exposure that many archeologists get to these issues comes on the job, and relatively few companies offer specific trainings for their employees on these important business-related topics. I understand that not all of our members may be interested in this program, but this presentation represents an effort to provide content that specifically

benefits professionals who are in early stages of their career.

The afternoon social will begin by 5:00 pm (or earlier) at the Camp Mabry picnic area. I know this is the highlight of the annual CTA calendar for many people (it's the only time I see some folks at any CTA function whatsoever). As always, this is a nice time to relax from the meeting and to catch up with friends and colleagues.

Some Agenda Items

Our meeting agenda will be a full one, with lots of committee and agency updates, including the annual E. Mott Davis Award for public education in archeology. There will be a lot of information presented in these updates, and I appreciate the efforts of all agency representatives and committee chairs to come ready to update our members about new information or activities. We will also vote for two new officers, someone to replace Amanda Castañeda as our outgoing Secretary and someone to replace Andrea Burden as Vice President. I cannot express strongly enough how diligently and professionally Andi and Amanda have worked to fill the responsibilities of these offices and I'd like to extend my very sincere personal appreciation for their work on behalf of the Council. They have been incredible resources for the CTA and I have enjoyed working with them.

Some other agenda highlights involve a couple of proposed bylaw revisions, and the presentation for discussion and vote on three new Performance Standard documents. In accordance with our bylaw requirements, the proposed bylaw revisions were posted on the Members Only section of our website more than 15 days prior to the scheduled meeting, and are also published in this newsletter.

One proposed change involves eligibility to serve as a CTA officer. Previously, no two officers could be employed by the same firm or state agency ("agency" as written in our bylaws). Our current bylaws were written a long time ago, before we had large companies with multiple offices across

the state. Recently, people expressing an interest in filling an officer role have come from companies already represented on the EC, and the existing prohibition has only limited opportunities for motivated people to serve our Council. The proposed changes simply loosens the restrictions so that two officers (except for President and Vice President) can come from the same agency so long as they work in offices located at least 60 miles apart. This limit is arbitrary, but it covers our state's major metropolitan areas (Austin, San Antonio, Dallas, Houston). The other proposed revision associates your CTA membership with an ethics statement. All professional societies (TAS, SHA, SAA, AAA, ACRA, RPA and others) have such statements, and as the CTA has grown (210 members and growing), we felt that it was time that we had a simple statement that defined some of the basic ethical principles that we should agree to abide by. This Statement is also posted for review and comment on our website and elsewhere in this newsletter.

The other major item on the agenda will be discussion and vote for adoption of three new or revised Performance Standard documents: Proposed Revised Terrestrial Survey Standards (revised), Mechanical Prospection Standards (new), and Standards for Identification of Cemeteries and Unmarked Graves (revised). Briefly, one of the most important functions of the CTA (apart from the afternoon social) is to make clear its views on what constitutes professional archeological performance. In this regard, it's important that we work closely with different state agencies and other members of the Texas archeological community. However, our organization was formed to represent that professional community, and our views on professional best practices are important in setting the standard in these areas of what it means to be a professional. In the past, we have drafted some documents variously called "standards" or "guidelines," terms that have been used interchangeably. Some have been adopted by the Texas Historical Commission, making them requirements for professional practice, while others have not. Required performance standards

presently include survey, curation, and reporting (called “guidelines for CRM reports”).

Taking these in no particular order, the goal of the revised Cemeteries and Unmarked Graves standards is to increase the amount of archival and other non-archeological effort given to locating lost or unmarked cemeteries prior to conducting fieldwork. From my own perspective, discovery of any cemeteries, especially historic ones, during construction should be seen as a worst-case scenario and we should take all necessary steps to ensure that these are found before ground is broken. Realistically, this won't always be possible, especially for prehistoric burials where no historical or archival information ever existed to mark their location. Nevertheless, these revisions enhance and make more explicit the CTA's views about what an appropriate effort is to consult available information during a scoping or desktop assessment project phase.

The proposed Mechanical Prospection guidance document fills a longstanding void in our performance standards, and deals with the use of mechanical techniques to search for deeply buried sites that cannot be located by shovel testing. Likewise, the revised terrestrial survey standards seek to tighten up some of the loopholes, weaknesses, and inconsistencies in our previous document.

Since these have been posted, we have started to get some thoughtful comments about how they may be improved or what some of the possible consequences might be for CRM in Texas. I know we'll have some engaged discussion about all three of these documents at the meeting, but please consider this: these revised (or new) standards are the result of a year (or more) of thoughtful, considered dialog involving several of your CTA colleagues who volunteered to participate in these ad hoc committees. These topics were raised by our members, and what is presented has been drafted with thought and care. Together they reflect our goal of improving the quality of work done in our state without posing undue burdens in terms of cost, delay, or

technical requirements.

If the membership votes to adopt these, the THC will consider whether they can be adopted for enforcement (as has previously been the case). At that time, we'll have opportunities to work out whatever wrinkles or concerns (major or minor) may remain. Foreseeably, it is possible that revised versions may be presented to our membership for another round of approval. Beyond these three documents, I have been told that an updated Curation Standards is close to being presented for adoption, and I have asked Dr. Jodi Jacobson (Chair of the Standards and Guidelines Committee) if her group could take up Reporting as the next document for revision. We'll be forming an ad hoc committee at the spring meeting to take this up.

Closing

Clearly, this will be an exciting, action-packed meeting. Other important items will include voting to adopt a new budget for 2020. I don't want to spoil Eric's presentation, but for those of you who were unhappy with the deficit budget that was presented for 2019 (Rachel and Ron), I hope you'll be pleased about his financial update. We are steadily integrating Wild Apricot into more of our membership and website management functions. We appreciate your patience as that process unfolds, and you will hear more news about that. We might even hear from the irascible Dr. Steve Black about Texas Beyond History in New Business if he remembers to renew his membership and come to the meeting.

To my knowledge, more people are working on behalf of CTA by helping promote or advance various agendas than ever before. This is an important time for our Council, and I appreciate everyone's engagement in these issues.

Thank you very much for your participation, and I'm looking forward to seeing you in Austin!

Jon Lohse

Professional Development Workshop: Interpretive Writing for Cultural Resources April 4th, 2019 at TxDOT's Camp Hubbard

Now more than ever, cultural resource professionals need to translate their archeological findings for a public audience. TxDOT is telling some of these stories as part of our Beyond The Road campaign, and we are bringing this professional development opportunity to you!

Museum expert Erin McClelland will lead a day-long workshop on interpretive writing for cultural resources.

- This workshop will assist technical writers in translating technical findings into accessible stories and information for the public.
- The workshop will cover theme development, storytelling, and interpretation.
- You will see examples based on archeology and transportation history and then try your newly found skill in interpretation.

Based on the format of this workshop, participation is limited to 30 people. If you register and cannot attend, please let us know so someone else can take your place.

The Interpretive Writing for Cultural Resources workshop will be held on Thursday, April 4 from 8:30 am to 4:00 pm at TxDOT's Camp Hubbard. Camp Hubbard is at 3712 Jackson Ave., Austin, 78731. We will send detailed parking instructions and building orientation to registrants before the workshop. Lunch will be on your own.

P.S.-Unfortunately there are no more open spots for this training, but we will keep you posted on other upcoming professional development trainings.



TxDOT's Camp Hubbard (Photo credit: TxDOT 2017)



Instructions:

Everyone who comes to the meeting at Camp Mabry must bring a photo ID. Tell the guard that you are attending the CTA Spring Meeting in Building 8. Please do not park in the small parking lot at the west entrance of Building 8, but continue on to the large parking lot to the east. Lunch can be purchased on site or there are several restaurants nearby.

Spring 2019 Agenda

Registration – 8:30 am

Call to Order – 9:00 am

Announcements

Approval of Minutes, Fall 2018 Meeting

Officers' Reports

President (Jon Lohse)

Past President (Missi Green)

Vice President (Andi Burden)

Secretary (Amanda Castañeda)

Treasurer (Eric Schroeder)

Newsletter Editor (Tina Nielsen)

Agency Reports

Texas Historical Commission (Pat Mercado-Allinger)

Texas Parks and Wildlife (Michael Strutt and John Lowe)

Texas Department of Transportation (Scott Pletka)

Texas Archeological Research Laboratory (Jonathan Jarvis)

Standing Committee Reports

Auditing (Mark Denton)

CTA Communications (Catherine Jalbert)

Contractors List (Erin Phillips)

Curation (Marybeth Tomka)

Governmental Affairs (Nesta Anderson)

Membership (Katie Canavan)

Multicultural Relations (Mary Jo Galindo)

Nominating (Bill Martin)

Public Education (Todd Ahlman)

Standards and Guidelines (Jodi Jacobson)

Ad Hoc Committee Reports

History (Reign Clark)

Old Business

New Business

Meeting Adjourns – 12:00 pm

Afternoon Session – 1:30 pm

Dr. Andrea Roberts: Freedom Colonies Project

Dr. Ashley Lemke: "Lost Cemeteries" Research

Kevin Miller: "The Business of CRM"

CTA Social – 5:00 pm – Picnic Area at Camp Mabry

Note: *Agenda is subject to change prior to the Spring Meeting*

Thank You Note

The CTA made a donation of \$1 for each CTA member (\$192) to the Cibolo Nature Center in memory of Bob Hard's son, Chris, who died in a car accident not long before our fall 2018 meeting. The CTA received this thank you note from Bob's family back in December.

Dear Jon & Council of Texas
Archaeologists,
Bob, Ben, Chris's fiance Sarah
Manson, & I would like to
thank you for the donation you
made in Chris's name to the
Cibolo Nature Center. We spent
a lot of time there when our
boys were growing up and it
means a lot to us to have his
legacy carried on in this way.
Thank you for your kindness
at this difficult time.

*Your sympathy and thoughtfulness will
always be gratefully remembered and
deeply appreciated.*

Sincerely,
Bob, Kivi, Ben, &
Sarah Manson

Vice President's Report

By: Andi Stahman Burden

Firstly, the Fall 2018 Careers in Archeology Social was a great success! Many thanks to Kay Hindes and Kristi Nichols, and to all our table sponsors! Be sure to drop by this year's Social and take advantage of the opportunity to network.

Secondly, looking forward in 2019, I've been working with the EC and others to reach beyond CTA to proactively address inadvertent discoveries of historic-era cemeteries through a new initiative aimed at enhancing online GIS-enabled databases for desktop review with additional cemetery locations, prioritizing areas of the state where inadvertent discoveries due to accelerated development are high risk, and determining a timeline for implementation. This initiative seeks win-win solutions for public and private project sponsors and the affected resources, while enhancing our ability to meet the updated Cemetery Identification Standards under development by the Standards and Guidelines Committee. The initiative also seeks two-way communication between a CTA core team and folks outside of CTA (e.g., county historical commissions, county archeological site stewards, well-known cemetery researchers and preservation advocacy groups, urban planners, and chairs of area councils of government). I will be providing more details on this at the CTA Spring Meeting and making a proposal to the membership for action.



Lastly, in order to properly support this initiative, I have chosen not to run for re-election as Vice President. Thank you to the EC members for their support and professionalism. It has been a great two years and I will miss the collaboration with each and every one of you. Also, thank you to the membership for being engaged in such important work and for trusting me to do the job in your interest. I am grateful and look forward to passing on what I have learned to the next Vice President of the CTA.

Secretary Report

By: Amanda Castañeda

Hello, all!

First, I'd like to thank our membership for their patience and understanding as we transition into the new Wild Apricot membership tracking system. I don't have the space in my report to go into all of the details of how much better this system is than our previous tracking and communication methods, but this is definitely the best route moving forward. For example, if you change companies in the middle of the year then you can log in and easily update your contact information so you don't miss any communications. It's the little stuff like that on the front end that make this system user friendly, and a much more effective and organized back end that make all of our lives so much easier.

That said, Catherine Jalbert (Communications Committee), myself, and the rest of the EC need your help as we continue through this transition period. If you think you are missing out on email communications or other notifications—please let us know ASAP! CTA is a growing and active organization, and we want to make sure we are serving our membership in the best way possible.

We ended 2018 with 194 members, 49 of which had contractor listings associated with a PI membership. Our current 2019 membership counts are as follows: 88 Principal Investigators (42 of which have an affiliated Contractor Listing), 56 Professional Archeologists, 11 Students, 3 Retirees, and 5 Institutional (non-voting) memberships. This brings us to a total of 163 memberships. This number will probably see a spike



around the spring meeting as folks remember to renew their memberships, but we appear to be on track to match or beat last year's numbers! Membership fees are where we bring in the majority of our revenue to use for scholarships, grants, and meetings. We have been growing in recent years and we'd like to see these numbers continue to grow, so please encourage your co-workers and/or students to join CTA!

As a final word- I jumped into this position in the middle of a term for Julie Shipp after she moved and we will be looking for a new secretary to start after the spring meeting next month. I'll be moving to Wyoming in May and will not be able to continue as secretary. If you are interested in serving in this position, please let the EC and nominating committee know! It's been a pleasure to step in for the last ~10 months.

See you at Camp Mabry in Austin!

Amanda

Treasurer Report

By: Eric Schroeder

As of February 24, 2019 the status of the CTA accounts is as follows:

Checking	\$23,747.46
Money Market	\$18,922.60
Scholarship Fund	\$ 9,128.73
<hr/>	
Total	\$51,798.79

On February 1, 2019, the budget committee convened and charted out the budget for the 2020 calendar year. I appreciate the hard work of Leslie Bush, Katie Canavan, Erin Phillips, and Maggie Moore for their help in conducting the analysis and coming up with a budget we can work with. I am pleased to report that the proposed budget was unanimously approved by the EC on February 7, 2019.

Some highlights of the 2020 budget in comparison to the 2019 budget include the following:

Income Projections:

- 1) An anticipated modest increase in membership numbers;
- 2) Corporate sponsorships (10 at \$50 each) to help subsidize the escalating cost of food and beverages for the Spring Social;
- 3) Increase in Fall Social Table charges from \$200 to \$300 to help subsidize the increased cost of having the event in Houston in 2020.

Expense Projections:

- 1) An increase of \$400 to cover cost escalation in food for the Spring Social;
- 2) An increase of \$1,500 to cover room and fee expenses associated with the Fall Social in Houston;

- 3) A total of \$500 to our Professional Development line item to reimburse travel expenses for a subject matter expert to provide professional development training at the upcoming SAA meeting in Austin;
- 4) A new line item of \$5,000 that will fund a proposed new CTA-sponsored Preservation on Private Lands Initiative;
- 5) TAAM Event Grants were reduced by \$500 due to a continuing decrease in the number of applications submitted.

You will notice that the budget for 2020 reflects a deficit. This is the result of two things - the Private Lands Initiative at \$5,000, and an increase in the Professional Development line item to \$2000 to bring in a Subject-Matter-Expert to deliver a Professional Development Workshop for the membership in conjunction with the SAAs that will be in Austin in 2020. We have applied for a TPTF grant to reimburse us for half of the monies for the Private Lands Initiative, so if that comes through, we will have a \$1464 surplus. If the grant is not awarded, we plan just to reduce the budget for the Private Lands Initiative to \$3964.

Outside the 2020 budget, I would like to discuss the Scholarship Fund. The original intent of the CTA Scholarship Fund was to create an endowment to form the basis of an academic fellowship. Although this was a noble idea, since its inception, the fund has not received the level of contributions necessary for it to meet that challenge. Under these circumstances, I would like to propose that we dissolve the CTA Scholarship Fund and roll the balance into the operations account, where it can be used to buffer against any unforeseen budget shortfalls should they occur.

Preservation on Private Lands Initiative

Statistics published by the Texas Historical Commission state that over 90 percent of archeo-

logical sites in the state are located on private land; however, sites in this category have almost no regulatory protection and yet they are threatened by pay-to-dig operations, impacts due to the recent increases in energy development, and other actions associated with agricultural operations. Therefore, the protection of these resources relies exclusively on private landowners being informed and knowledgeable of their importance and how to protect and properly manage them.

The Texas Historical Commission's (THC) regional archeologists supported by the Texas Archeological Stewardship Network reflects an effort to fill this gap, but the magnitude of the problem far exceeds the capacity of these organizations. Furthermore, the effectiveness of the THC's efforts is hampered by the fact that there exists a prevailing fear among many private landowners to engage a government agency on the issue.

The proposed CTA-sponsored Preservation on Private Lands Initiative is intended to bolster and synergize existing preservation efforts among multiple organizations by providing added capacity to fill the gap of existing governmental and other non-profit programs. The scope of this initiative is to provide private landowners access to preservation knowledge, best practices, techniques, and possibly monetary assistance to encourage them to become effective stewards of the cultural resources located on their own property. The CTA hopes to accomplish this by conducting a strategic planning event followed by a pilot study. The planning event will involve representatives from various partner organizations as a means to better define the initiative's mission, goals, objectives, and to identify and develop methods of engagement with stakeholder communities. The results of this planning event will be incorporated into a strategic plan, and a pilot study will be conducted to evaluate various methods of stakeholder engagement. The intent is that CTA will form a committee comprised of the membership who

will be responsible for overseeing the execution of the strategic plan. To provide the resources required to support the initiative through 2020, the EC has proposed an appropriation of \$5,000, and has applied for matching funds from the Texas Preservation Trust Fund to recuperate half of this cost. I look forward to discussing this initiative with the membership in more detail during the spring business meeting.

Newsletter Editor Report

By: Tina Nielsen

Hi Everyone-

As you can tell from the length of this newsletter and the officer reports, this is a very important CTA newsletter issue. Everyone has been working very hard to get the proposed bylaw changes, proposed ethics statement, and proposed standards and guidelines documents ready for review by the membership prior to the fall meeting. Jon mentioned in his report that we would be voting on three new or revised standard and guidelines documents, however, **the Standards for Identification of Cemeteries and Unmarked Graves document will no longer be up for vote at this time.** The standards committee is working diligently to revise this document and address recent comments provided by the membership and agencies, but a final draft is not yet ready for review. Please do read the previous draft document posted on the CTA Members Only site prior to the meeting if you haven't already and provide feedback to the committee at the spring meeting or via email counciloftexasarcheologists@gmail.com. Once a final revised draft is ready, it will be posted online for the membership to review.

On a similar note, a draft revised Standards and Guidelines for Curation document is provided at the back of this newsletter. We have addressed the majority of our internal curation committee comments and edits and will now be seeking feedback and comments from the membership. We plan to finalize this draft and post it on the website (and in the newsletter) prior to the fall meeting where we will then (hopefully) be ready to vote and accept the revisions.



For some old business - the technology professional development that I was coordinating for this spring on digital tablet recording systems for fieldwork was put on hold. I am hoping to reschedule this for sometime in the fall, however, we are currently brainstorming and beta testing some new methods/systems at my office and I would prefer to complete this prior to the training session. Once I have a better idea of when this training will occur, I will reach out to some of you and see if you would be willing to present/teach and touch base with those who already expressed an interest in assisting.

Looking forward to seeing you all at the spring meeting in a few weeks!

Cheers,

Tina

CTA Executive Committee Candidates

Vice President - 1 Candidate

Dr. Erin Phillips has served since 2015 as Regional Labs Manager/Project Manager at Coastal Environments, Inc. (CEI) and Project Manager/Lab Director at Moore Archeological Consulting (MAC), a wholly-owned subsidiary of CEI. In the last three years, Erin has coordinated and assisted with closing more than 50 Texas Antiquities Permits. She has also assisted with the management and coordination of large complex projects for TxDOT, THC, TPWD, and USACE. In addition to her other roles at CEI/MAC, Erin has served as a prehistoric ceramic analyst on several projects. Over the last 16 years she has participated in Phase I, II, and III field projects across the Southeast US including projects in Texas, Mississippi, Alabama, and the Carolinas. Much of Erin's work has focused on Mississippi Period sites dating to between AD 1000 and 1450, including Plaquemine and Mississippian. She has also worked on protohistoric Native American (e.g., Caddo) and Historic Euroamerican projects. Erin received her BA from Tulane University and her MA and PhD from the University of Alabama. She is a member of a number of archeological organizations including the Society for American Archeology (SAA), Southeastern Archeological Conference (SEAC), Caddo Conference Organization (CCO), and state-level organizations in Alabama (AAS), Mississippi (MAA), Louisiana (LAS), and Texas (TAS, CTA). From 2008 to 2015, Erin served in the following roles for the AAS: Assistant Newsletter Editor, Assistant Journal Editor, Archeological Resources Committee Chair, At-Large Board Member, Secretary, and President. Erin currently serves the CTA as Contractors List Committee Chair and as a member of both the Budget Committee and the Curation Committee.

CTA Secretary - 2 Candidates

Scotty Moore is a staff archeologist with Cox|McLain in its Houston office, a position that he has held since January 2018, where he learns something new every day from former CTA president Missi Green! A relative newcomer to Texas archeology, Mr. Moore has 18 years of experience conducting archeological fieldwork and research in Alaska, Arizona, California, Colorado, Louisiana, New Mexico, Oklahoma, Oregon and in 22 countries. This work has included supervisory roles on everything from Phase 1 surveys to multi-year data recovery projects. He has also served as adjunct and residential faculty at both four- and two-year institutions of higher learning in Arizona and Texas and formerly served as Secretary for the Mesa Community College faculty senate. He specializes in geoarcheological analysis and is currently a candidate for PhD at the University of Washington. He is excited about taking an active role in the Texas archeological community and he really likes to take notes during meetings!

Zack Overfield is a dedicated archeologist with experience in both prehistoric and historic archeology across the southern United States and the Midwest. He specializes in historical archeology and navigating complex city, state, and federal cultural resource regulations. Zack attended Stephen F. Austin State University during his undergraduate education and completed his MA at the University of Texas at Arlington focusing on nineteenth century East Texas. At SWCA Environmental Consultants he serves as the Cultural Resources Team Lead and Principal Investigator/Project Manager for the San Antonio office, managing cultural resource investigations and complex multidisciplinary projects from inception to completion. Zack is a passionate advocate for cultural resources and plans to continue to expand his involvement with the CTA.

Communications Committee Report

By: Catherine Jalbert

Dear Members,

Happy Spring! In the past year, the Communications Committee has maintained our Facebook page, created a Job Posting/Resume board in the CTA Members Only section of the website, and begun to use the membership management site, Wild Apricot (WA). WA not only allows members to easily login and renew their memberships, but it also provides the CTA EC with a platform to better track and communicate with members. With the help of WA, the EC can focus their time and energy on other initiatives rather than updating excel spreadsheets, email contact lists, etc. It should also remove overall error when members need to update their affiliations or email addresses, since this will now be the responsibility of members.

A note about emails: The EC has heard that some members are not receiving emails from WA. While we will strive to not include web addresses that might trigger spam filtering, I suggest that you please create a rule/exception to make sure our emails reach you.

With the establishment of WA, I have also created a Discussion Forum (to replace the old yahoo group) and a Member Directory. In the coming year, I propose the CTA consider moving the entire CTA website over to WA. This will save the organization approximately \$200 a year and will provide better integration with the

new features offered by WA. As long as the CTA continues to pay for our domain name (\$15/year for counciloftexasarcheologists.org) we can use this as our main address for WA to provide some continuity. I'm additionally suggesting this move because the CTA website suffered a serious malware attack this spring. While I have added additional protections to the CTA website, I don't believe this is a long-term solution because it has affected the functionality of the Members Only section. Moving to WA will provide the CTA with services/support to help protect the website from further attacks and should not affect any of its features.

With all of this in mind, goals for the coming year include:

- Automating the CTA Contractors List
- Personalizing Wild Apricot email templates for new/renewing members
- Continuing to update CTA webpages. I have focused my energy on the "Awards and Grants" pages to start with.
- Moving the CTA website over to WA if this idea is approved by the EC and CTA membership

As always, if you have any suggestions for items you'd like to see incorporated into the website, please feel free to email me. I look forward to continuing to update our online presence and integrate new features in the coming year.

Catherine Jalbert
Communications Committee Chair

Public Education Committee Report

By: Todd Ahlman

E. Mott Davis Award

The Data Recovery at the Headwaters of the Comal () is a collaborative effort between New Braunfels Utilities (NBU), The Headwaters at the Comal (a non-profit interpretive center), and AmaTerra Environmental, Inc. (AmaTerra). During construction for the interpretive center, a significant, multi-component prehistoric archeological site (41CM204) was unearthed, components of which are being excavated as part of a data recovery effort. To coincide with this excavation, the Headwaters team focused a significant effort on public outreach that was holistic in nature aimed at reaching a wide audience in as many, convenient ways as possible.

To date, the public outreach has included:

- Regular on-site walking tours with public screening (494 visitors have participated in the tours including an elementary school field trip with 150 first graders!). Tours were guided by trained docents who put in some 40 hours of volunteer participation.
- Volunteer artifact lab processing and cleaning opportunities (258 volunteer hours and counting!)
- Three themed evening/weekend tours for members of the public who were not available for daytime visits during the week (attended by 42 people). Themes included: Prehistoric Foods and Feasting, Archeological Evidence of Climate Change, and the Historic Use of the Headwaters at the Comal site.
- A public excavation website (www.headwatersatthecomal.com/archaeology) with roughly weekly updates included in the site's blog (www.headwatersatthecomal.com/archaeology/

[news](#)).

- The blog posts include numerous public-friendly excavation descriptions, in-depth discussion topics focused on access by future educators, photos, videos, and the occasional 3d model.
- Weekly live video streams from the site on YouTube Live hosted by the archeologists doing the work (<https://www.youtube.com/channel/UCDIL3E7ybUq8NgV518LpYug>). Each video was streamed live on Thursday mornings at 10:00 am from the site with viewers able to ask questions in real time.
- The establishment of the Headwaters at the Comal Archeology Education Steering Committee. This committee was established to maximize the impact of public benefit and engagement from the archeological excavations and the resource as a whole into the future. The committee consists of volunteer members of the Headwaters, AmaTerra Environmental, Inc., the Comal County Historical Commission, Texas State University, and the Comal and New Braunfels Independent School Districts.
- An on-site earth oven demonstration, held on Friday, February 22nd where 50 attendees saw how an earth oven was made and the foods that were prepared in it. Boy Scouts conducted research and interviewed archeologists to earn their Archaeology Merit Badge.

These efforts made the data recovery project available to the archeological community, local New Braunfels residents, the interested public across Texas and the United States, and internationally. Truly efforts that exemplify outstanding outreach and educational efforts for public funded archaeology in Texas.

Texas Historical Commission Updates

By: Patricia Mercado-Allinger

Website Updates-Archeological Consultants Working in Texas

“What are all those permit close-out requirements again?”

Do you ever wonder where to find that Guidance for Studying Late 19th-Century and Early 20th-Century Sites document?

Are you new to Texas and need to check if a project area contains recorded sites?

What can you submit to the THC through e-mail versus hard copy or eTRAC?

The Archeology Division at the THC is working on revamping the “Archeological Consultants New to Texas Page” on our website. This page was originally intended to provide guidance to new firms coming into Texas. However, we recognize that in addition to an influx of firms into our state, new PIs are minted almost daily, and the upcoming CTA guidelines changes will be relevant for folks who have worked here for years as well. Considering this, we are creating a page that can serve as a comprehensive source of information for ALL “Archeological Consultants Working in Texas,” old and new. The new page will feature information on accessing the restricted Texas Archeological Sites Atlas, professional and permitting requirements with links to the rules, project submittal and review procedures, links to standards and guidelines, and links to resources for consultants. We welcome your suggestions and requests for content. Once the revised site is up and running, we will send out a notice.

COUNCIL OF TEXAS ARCHEOLOGISTS

Standards and Guidelines Committee

Proposed Revised Terrestrial Survey Standards (Fieldwork)

March 21, 2019

These standards should be considered the minimum acceptable for terrestrial surveys less than 200 acres in size. Specific project circumstances may suggest variance from these standards; such conditions should be discussed with the THC Archeology Division prior to implementing the survey and should be clearly described and defended in the plan of work. For project areas larger than 200 acres, survey methodologies should be discussed with the THC Archeology Division prior to implementing the survey.

1. Professional Qualifications

Archeological investigations must be supervised by an archeologist who meets the U.S. Secretary of the Interior's Professional Qualification Standards for Archeology (48FR 22716 or 36 CFR Part 61); or meets the requirements for Principal Investigator defined in Title 13, Part II of the Texas Administrative Code, Chapter 26 Subchapter A, Rule §26.4.

2. Transect Interval

The maximum width of a single pedestrian survey transect is 30 m. The maximum interval between transects is not greater than 30 m.

3. Shovel Testing

Shovel tests (STs) are excavated in settings that have potential for shallowly buried cultural materials. STs are 30 cm in diameter or on a side and are dug in levels no thicker than 20 cm with sediments screened through ¼-inch mesh unless high clay or water content requires that they be troweled through. STs are excavated to the lesser of:

- a) the bottom of Holocene deposits in depositional areas;
- b) subsoil in upland areas; or
- c) a minimum depth of 80 cm.

If the impacts from the proposed action/undertaking are anticipated to be deeper than 80 cm, then deeper mechanical investigations (see Deep Propection Standards) or geophysical remote sensing may be warranted. Locations of all STs should be recorded regardless of whether or not cultural materials were recovered from the ST.

4. Locations Not Surveyed and/or Shovel Tested.

Pedestrian survey and/or shovel testing may not be warranted in areas of exposed bedrock, in areas with greater than 30 percent ground visibility in upland or erosional settings, on slopes greater than 20 percent (*ca.* 11 degrees), and/or in settings with evidence of significant ground disturbance. Shovel testing may not be warranted in recently turned agricultural fields having good ground visibility. All such locations should be clearly delineated on maps, photo-documented, and discussed in the report.

A minimum of one ST must be excavated and photo-documented for each excluded area regardless of surface visibility to assess the potential for buried deposits where artifacts may not be visible on the

surface. In addition, the intent is not to reduce the level of effort (excavating fewer STs than prescribed for project area), but rather to redistribute STs to areas where there is greater potential for buried cultural materials.

5. Rates of Shovel Testing

- a) **Linear projects.** Linear projects are defined as at least 10 times longer than they are wide and require at least one transect for every 30 m of width or fraction thereof. One ST is required per 100 linear meters of each transect (equivalent to 16 ST per mile).
 - i) For example, a project within a 150 foot-wide (46 meters-wide) corridor that is one-mile in length (1.61 kilometers) would require two survey transects with a minimum total of 32 STs.
 - ii) Divergence from strict transect lines and spacing is encouraged to investigate potential landforms, visible features, or other high probability areas and/or to avoid a surface restrictive feature (e.g., bedrock, creek, pavement) that prevents sub-surface exploration, provided the overall rate of shovel testing is in keeping with the overall project dimensions.
- b) **Area (non-linear) surveys.**
 - i) For projects less than 25 acres in area, 2 STs should be excavated per acre.
 - ii) For projects between 25 and 200 acres in size, 50 STs should be excavated for the first 25 acres plus one ST per every five acres over 25 acres. For example: a 30-acre survey would require 51 STs; a 35-acre survey would require 52 STs; a 199-acre survey would require 85 STs.
 - iii) For project areas larger than 200 acres, survey methodologies should be discussed with the THC Archeology Division prior to implementing the survey. In some cases, a predictive model may be appropriate to stratify the project area into zones having different field tactics.

6. Defining Site Boundaries.

To delineate site boundaries in settings having the potential for shallowly buried cultural materials, STs should be excavated in a cruciform pattern at intervals no greater than 15 m until two negative STs are found in each direction or topographic limits (e.g., landform boundaries, streams) are reached. Site boundaries should be recorded from the location of the first negative ST, unless an additional ST between the first negative and last positive is conducted and is also negative. All surficially discovered sites or isolated finds must be accompanied by ST investigations to verify whether additional sub-surface deposits are associated and site boundaries properly delineated. For larger sites, additional STs may be necessary to define boundaries beyond just the four cardinal directions.

7. Field Recording.

- a) **Photography.** All digital photographs should be captured with the subject in focus with a camera capable of at least 5 MP[1] images. Although most cameras natively capture images in a lossy JPG format, a lossless format, such as TIFF or RAW, is often required for curation and images should be captured in this format, if possible. The locations of all photographs should be captured either through a GPS or should be capable of being plotted on a 1:12,000 map.
 - i) All archeological sites should be photographed from a minimum of two angles with as consistent of lighting as possible. Photographs of all cultural features and other representative natural features of interest should be captured for each site.

- ii) Representative photographs of project area conditions should be captured for all projects.
- b) **Geospatial Data.** Survey corridor boundaries and locations of all subsurface excavations including STs should be recorded in the field. An accurate site map that can be easily referenced to a 1:24,000 scale quadrangle map is required for all recorded archeological sites. Required information on all maps includes locations on all STs, excavations, site overview photographs, individual artifacts or artifact clusters, cultural features and relevant natural or other landscape (e.g., roads, buildings) features. GPS locations are often recorded in combination with or in place of pace/tape and compass mapping of sites and project areas. For field projects employing GPS as the only mapping technique, the GPS data should be recorded and reported with the instrument and field methods used to collect the data in order to provide an estimate for the data accuracy.
 - i) Most baseline consumer-grade GPS units collect with a 3-5 m accuracy, while WAAS[2]-enabled units are capable of 1-3 m accuracy in the best conditions. Submeter-accurate GPS data should be collected on sites when recording point-provenanced artifacts and features, and these data should be reported along with error measurements.
- c) **Artifact Data.** Quantities of artifacts or estimates of materials in dense scatters should be recorded for all sites and the locations of artifact concentrations plotted on site maps. All diagnostic artifacts and representatives of non-diagnostic materials should be photo-documented in the field. If a non-collection strategy is employed, photo clarity should allow for analysis of diagnostic features.
- d) **Additional Site Data.** Data suitable for compilation and submission of state site survey forms or site revisits should be recorded as required by Chapter 26, Subchapter A, Rule §26.14f

8. Historic Locations.

Locations of possible historic period archeological sites should be specifically investigated to site-recording standards. This should include a pre-field review of aerial imagery, historic maps and other sources as available combined with onsite field investigation of these locations within the defined project area.

9. Background Research.

Archeologists must conduct a background literature search prior to field investigations. At a minimum this shall include searches of the Texas Historical Commission and the Texas Archeological Research Laboratory records or the equivalent Texas Archeological Sites Atlas Database for previously recorded archeological sites and historic properties and for previous archeological work. A 1-km search radius works well in many locations, but this search distance can be increased as necessary to best provide a context for the proposed survey.

10. Unique Circumstances and Variance from Standards.

Specific project circumstances may suggest variance from these standards. Such conditions should be discussed with the THC Archeology Division prior to implementing the survey and should be clearly described and defended in the plan of work.

**COUNCIL OF TEXAS ARCHEOLOGISTS
MECHANICAL PROSPECTION AD HOC COMMITTEE
MECHANICAL PROSPECTION STANDARDS**

PURPOSE AND SCOPE: This document is intended to establish minimum standards, and best practices where appropriate, for using mechanical equipment to locate and define the boundaries of buried archeological sites in a terrestrial setting. It includes standards for documentation, but is not intended as a standard for geoarcheological work. It is also not intended to guide the use of mechanical equipment to assess and investigate sites (beyond basic boundary definition during the identification phase). All such activity should be governed by a site-specific plan developed in consultation with the SHPO.

SAFETY: All mechanical excavation and documentation should be performed in a safe manner in full compliance with all applicable OSHA regulations.

DEPTH: All mechanical excavation should be continued to the lesser of:

- a) the project's vertical APE (Area of Potential Effect);
- b) bedrock;
- c) deposits that represent facies beneath which archeological potential is minimal, such as thick (50 cm+) channel gravels;
- d) deposits that substantially predate the Holocene; or
- e) to the maximum depth that can be reached by an appropriately scaled and powered machine (i.e., 4–5 m below ground surface for trenches; 1 m+ for auger tests).

All judgments regarding whether categories c) and d) are satisfied should be made by senior-level personnel (e.g., a trained geoarcheologist or a PA-PI level archeologist with experience in the region).

LOCATION: All mechanical units should be located using consumer-grade GPS (e.g., Magellan receivers, modern cell phone with specialized mapping app). Locations should use an explicit, consistent projection and datum.

Best Practices for location include:

- Cross-checking GPS locations with aerial imagery.
- Where possible, location should be recorded using GPS with sub-meter accuracy (e.g., Trimble) or survey equipment (e.g., Total Data Station) set at a known point.
- Trench orientations/perimeters should be captured with multiple readings.
- Measurement error should be recorded and included in reporting.

MECHANICAL AUGERING

Machine-mounted power augers with a bore diameter of at least 8 inches (20 cm) may be substituted for shovel tests at a 1:1 ratio, provided that all of the spoil is screened to identify artifacts.

Hand augers and hand carried machine augers are useful for gauging sediment depth and identifying buried surfaces (paleosols), but in general are not considered reliable for assessing the presence of cultural material because of their small diameter. Therefore, hand augers and hand carried machine augers are not recommended as a substitute for shovel tests, particularly for determining that a site is not present. However, when machine access is not feasible for environmental reasons (e.g., in a wetland, in dense hardwoods, on a floodplain segment surrounded by incised channels), hand augering with a 3-inch or 4-inch bucket auger at a 2:1 ratio to the recommended number of shovel tests is considered a “reasonable and good faith” alternative.

Best Practices for Mechanical Augering include:

- Use of a plywood sheet or heavy canvas tarp with a hole in it to sit around the auger and keep the spoil from falling into vegetation.
- Use of extension bits to reach depths in excess of 1 m.
- Screen probe matrix with ¼-inch mesh for cultural materials.

MECHANICAL TRENCHING (backhoe, trackhoe, gradall, excavator)

While CTA recognizes that trenching is far more damaging to sites than shovel testing and that low impact methods such as remote sensing certainly have their place in archeological investigations, we believe that trenching is the only reliable method to determine whether a buried site is present below shovel test depths. Accordingly, we recommend that mechanical trenches should be used whenever shovel testing is inadequate to evaluate a given setting to the appropriate depth.

While a trench provides a much better opportunity than a shovel test to identify buried cultural material at a given point on the landscape, individual trenches are not significantly better at providing areal coverage, and one trench cannot substitute for a large number of shovel tests. The same transect spacing should be used for trenching that is used for shovel tests, and trenches should be deployed at a ratio of 1:2 relative to the shovel test schedule in the survey standards. That said, the location of trenches should not be purely mechanistic. The investigator should adjust placement to accommodate terrain, vegetation, and modern cultural features. The density and placement of trenches for projects larger than 100 acres should be tailored to the area of interest by a trained geoarcheologist or a senior-level archeologist with experience in the region, and negotiated in advance with SHPO. Trenches should be a minimum of 24 inches (60 cm) wide, at least 4 m long, and excavated to the appropriate depth, as specified above. Safety benches and access ramps should not be used to inflate the count of trenches for purposes of meeting this standard.

At minimum, trenches in loamy and clayey environments should be either:

- a) excavated by slowly peeling off thin (5 cm or less) subhorizontal layers under close monitoring using a smooth-bladed bucket, with subsequent hand cleaning and inspection of the walls and monitoring and inspection of spoil;

- b) excavated using a smooth-bladed or toothed bucket, with screening of at least one five-gallon bucket from every third excavator bucket load during excavation, and careful cleaning and inspection of the walls on completion; or
- c) excavated using a smooth-bladed or toothed bucket, with controlled excavation and screening of a contiguous column measuring at least 30 x 30 cm, and careful cleaning and inspection of the walls on completion.

Because artifacts in sandy sediments are difficult to identify in trenches, sample screening (per approaches b or c above) is required for trenches in sandy environments.

Minimum documentation standards for trenches should include a basic profile description and a high-quality color photograph of a well-cleaned profile column at least 1 m wide.

Best Practices for trenching include:

- Use of a wide, smooth-bladed bucket during trenching.
- Close monitoring and hand investigation of artifacts and features exposed in the floor as trenching occurs.
- Excavation of a controlled column sample and screening of fill by depth.
- Close, supervised cleaning of trench walls to identify archeological strata, which can be subtle in section.
- Orientation of trenches so that profile photographs are uniformly lit.
- Detailed description of profile using criteria of Schoeneberger et al. 2012 or similar
- Opportunistic sampling of artifacts and datable materials.
- Staggering of trenches along adjacent transects.

SITE DEFINITION

Where practical, landforms and natural exposures should be employed to identify and constrain the boundaries of deeply-buried sites. Where sites are found at a depth greater than can be reached with shovel testing, a minimum of four trenches or auger tests should be used for site definition unless other criteria can be used to constrain site size. However, the need to define the boundary at depth should be balanced against disturbance to shallower components, and boundary definition may be deferred to the testing phase where warranted. Auger holes used for site definition should be substituted for shovel tests on a 1:1 basis.

SCRAPING (e.g., bulldozer, front end loader, maintainer/road grader)

While such equipment is often appropriate for prospecting for features (particularly burials) within the boundary of a known site, scraping is not endorsed as a method of site location. Any use of such equipment should be discussed in advance with THC.

REFERENCES

Schoeneberger, P.J., D.A. Wysocki, , E.C. Benham, and Soil Survey Staff
2012. Field book for describing and sampling soils, Version 3.0. Natural Resources Conservation Service, National Soil Survey Center, Lincoln, NE.

SUMMARY TABLE

MINIMUM DEEP PROSPECTION STANDARDS For Project Areas of 100 Acres or Less	
Depth	Excavation should continue to the lesser of: <ul style="list-style-type: none"> a) project's vertical APE b) bedrock c) deposits beneath which archeological potential is minimal (thick channel gravels, etc.)¹ d) deposits that substantially predate the Holocene¹ e) maximum depth that can be reached by appropriate machinery (4–5 m)
Equipment²	machine-mounted power auger, backhoe, trackhoe, gradall, excavator
Augers³	minimum of 8-inch (20-cm) bore diameter substituted for shovel tests at 1:1 ratio
Trenches⁴	minimum of 24 inches (24 cm) wide and 13 feet (4 m) long, excavated to appropriate depth, and benched according to safety concerns substituted for shovel tests at 1:2 ratio ⁴
	Best practices for trenches ⁵ : <ul style="list-style-type: none"> a) Trenches should be excavated by peeling thin (5 cm) layers with a smooth-bladed bucket under close observation and subsequent cleaning of walls; --or-- b) at least one 5-gallon bucket from every 3rd excavator bucket load should be screened, with subsequent cleaning of walls --or-- c) controlled excavation and screening of a contiguous column measuring at least 30 x 30-cm

1. Judgments should be made by senior-level personnel (e.g., trained geoarcheologist or PI-PA level archeologist with experience in the region), and justified in the report.
2. Front-end loaders, road grader/maintainers, bulldozers, and other heavy equipment intended for blading large areas are not appropriate except in specific circumstances, and their use should be discussed with THC in advance. All deep excavation activities should comply with applicable laws governing workplace safety (OSHA).
3. Augers with less than 8-inch bore diameter are not adequate due to insufficient sample size except in special cases; all auger spoil should be screened to identify artifacts.
4. Trenches should be placed according to the judgment of senior personnel.
5. Where available, trenches should be excavated with a smooth-bladed bucket and trench walls should be cleaned and inspected. Reports should include a basic profile description and a high-quality color photograph of a well-cleaned profile column at least 1 m wide.

Proposed CTA Bylaw Changes

ARTICLE IV. Officers, Election and Terms, Qualifications, Nominations

Section 3. Nominations

- a. At the regular Fall Meeting a Nominating Committee of five persons shall be chosen. The Chair of the Committee shall be appointed by the President. Four or more additional nominations shall be made from the floor for the remaining positions, and those four receiving the highest number of votes shall be elected.
- b. It shall be the duty of the Nominating Committee to nominate candidates for the offices to be filled at the regular Spring Meeting. This Committee shall confer with all persons nominated in order to determine their willingness to serve if elected.
- c. No agency may be represented by more than **two** ~~one~~ persons on this Committee **assuming that the primary work addresses of these two people are not located within 60 miles from one another. The President and Vice President shall not represent the same agency, except under the conditions of succession described in Section 3(e) of this article.** An agency is herein defined as a private organization or a separately budgeted branch of government or educational institution.
- d. Before the election of officers at the regular Spring Meeting, additional nominations from the floor shall be permitted.

Proposed CTA Ethics Statement

Council of Texas Archeologists Ethics Statement

Draft Version 1, 2019

CTA members agree to promote, investigate, preserve, and enhance the cultural resources of the state in a responsible manner without participating in illegal activities to achieve said purpose, and shall work to educate and engage with the public on the vast and complex history and prehistory of the state. Members shall commit to upholding the CTA professional standards and guidelines, and shall conduct work according to the following ethical guidelines:

1. Members shall represent archaeology and its research results to the public in a responsible manner to the extent compatible with resource protection and legal obligations;
2. Members shall not falsify results or findings, plagiarize, or misrepresent themselves, their efforts, or their results, but shall report truthfully on methods, findings, personnel and project limitations.
3. Members shall consider public and stakeholder opinion during resource evaluation, and shall promote opportunities to engage the public in archaeological projects.
4. Members shall promote conservation opportunities as a complement to site investigation in an effort to minimize the destructive nature of excavation.
5. Members shall promote a safe work environment and will abide by laws pertaining to harassment and discrimination.
6. Members shall have adequate and appropriate training and experience for the research they undertake. Collaboration will be welcomed and encouraged.
7. Members shall not knowingly be involved in any activity that supports commercial exploitation of artifacts.

CTA Student Grant Report

Patricia plans to write a full report for the next newsletter, but here is a quick update and some photographs of the fieldwork.

Patricia Markert, PhD candidate at Binghamton University and recipient of the 2018 CTA Student Research Grant, conducted her dissertation fieldwork in D'Hanis, TX in November and December 2018. With a crew of three recent graduates from Binghamton University, she documented and mapped seven extant ruins that date to D'Hanis' early settlement by Alsatian migrants in the 1840s and 50s. Her methods included taking GPS points, conducting close-range photogrammetry, documenting surface finds and architectural details, and creating scaled elevation maps of the buildings. In February, she returned to record several more foundations and house sites in the area. One of the primary goals of the research is to document early decisions made by Alsatian settlers and create a map of the early town, which will inform Markert's dissertation research as well as several community-based heritage efforts.

The CTA Student Research Grant allowed her to purchase equipment for the project and host several community programs, including an archaeology open house, an archaeology day for kindergarten and 1st graders, and several community talks and lectures. Her work is also supported by the Wenner-Gren Foundation and the National Geographic Society.



The field crew, from left to right: Patricia Markert (field director), Hunter Crosby, Nolan O'Hara, and Emily Sainz. Photograph by P. Markert, 2018.



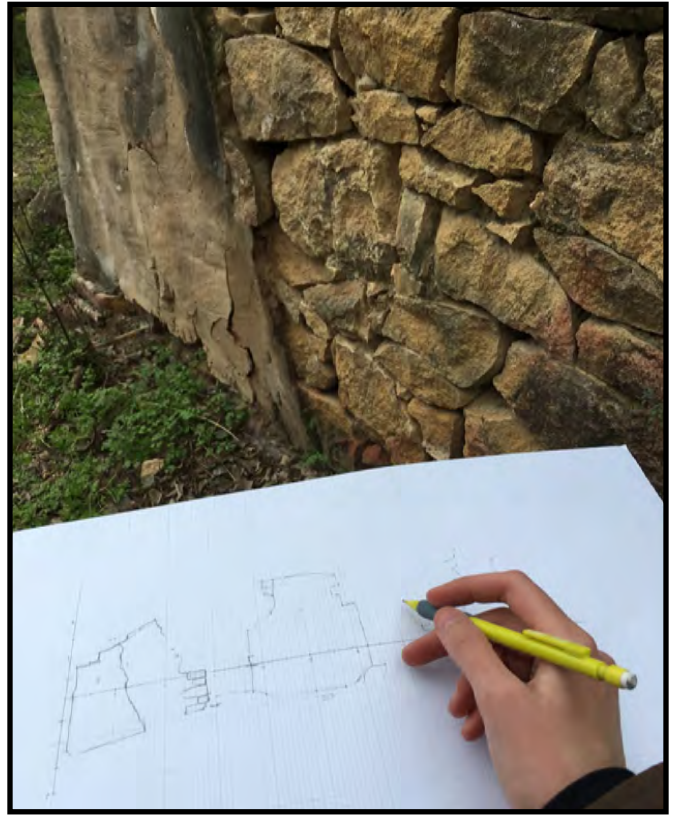
The “dogtrot” area of what was once a stagecoach inn and store in Old D’Hanis, constructed primarily of sandstone (with a later limestone addition, not pictured). Photograph by P. Markert, 2018.



Patricia Markert recording architectural details for one of the structures, a 19th century home constructed of sandstone, using the field iPad. Photograph by J. Trombley, 2018.



An aluminum ravioli tray, c. mid-20th century. Though the crew did not collect artifacts, they recorded surface finds using the project iPad and scaled photograph board. Photograph by N. O'Hara, 2018.



Markert drawing a scaled architectural elevation of the one of the stone walls. Photograph by P. Markert, 2018.



A photograph of the interior of one of the structures, illustrating its limestone construction. Photograph by P. Markert, 2018.



A dense point cloud generated for one of the structures. MetaShape Pro (then PhotoScan Pro) was used to create scaled 3D models of each structure through close-range photogrammetry. Photo by P. Markert, 2018.

CTAR Announcement

Central Texas Archaeological Resources (CTAR) is gearing up for the 5th year of leading investigations at the La Pila Fountain Archaeological Project for the Waco Hispanic Museum. The project is a volunteer community project located in the historic district of downtown Waco, along the Brazos River and on the grounds of Indian Springs Middle School.

The purpose of the La Pila Fountain project is to excavate the historic fountain that was the cultural center of the Hispanic Calle Dos (Second Street) neighborhood that was destroyed during Urban Renewal projects in the 1950s. The fountain and neighborhood hold great significance to the Hispanic community in Waco, and the excavation is to expose the remains of the fountain for a memorial to the former neighborhood, and to learn more about the history of the Hispanic Community that once resided there.



Top right: Katherine Turner-Pearson, PI and Karen Jordan excavating at La Pila in 2018.

Bottom left: Crew working at La Pila Site in 2018.

CTAR Announcement

The Principal Investigator is Katherine Turner-Pearson, RPA and has involved 106 middle school students, several community work days, two Archaeology Awareness weekends, visitors from a Hispanic Museum Conference, as well as many local and regional news stories. Thus far, the site has yielded over 100,000 artifacts.

Plaques and benches are planned around the remains of the fountain in the future. The project is supported by the Waco Hispanic Museum, Central Texas Archaeological Resources, Waco Independent School District, Indian Springs Middle School, and the City of Waco. Volunteers are greatly appreciated and with some recent grant money, some workers can now be paid. We hope to complete the excavations this spring. So students or archaeologists who want more experience for their resume please contact Katherine Turner-Pearson at katherine@centxarc.com.



Indian Springs Middle School students excavate at la Pila while their teachers watch.

Fall 2018 CTA Meeting Minutes

October 26, 2018

Menger Hotel, San Antonio

Registration - 8:30 am

Call to Order - 9:04 am

Announcements

Jon Lohse: Welcome to San Antonio, Thanks for everyone for attending and the TAS committee for helping us facilitate the meeting. Taking a look at the schedule, we have some important things to talk about today. Friday is "CTA Day", after our business meeting we have a training/professional development with Becky Shelter and the THC on recording historic sites.

Becky Shelton: 1:00-3:00pm, with 2 folks presenting and several others from the THC will contribute and will chime in during the workshop. It is timely topic as every year passes we have the question of "what is historic"? The results of the afternoon conversations could dovetail with the standards and guidelines work that the CTA is doing.

Jon Lohse: Next spring we will be back at Camp Mabry for our Spring Meeting but it will be a different room so watch for those details. April 4-5 will be these dates. We will try to have another day long professional training on Thursday, it will likely be on digital recording systems, hosted by Tina Nielsen.

Approval of Minutes, Spring 2018 Meeting:
Mary Jo Galindo moves to approve, several seconds, motion carried unopposed.

Motion to Accept Officers Reports
Moved to approve, motion carried unopposed.

Officers Reports

President (Jon Lohse):

I just wanted to say hats off to the standards and guidelines committee, we will hear from several folks today about these subcommittees but thank you for all who volunteered to work on these committees. It is a service to our profession and we are grateful for you all. The progress has been "lightning fast" in CTA time.

There seems to be more work going on in CRM in Texas than ever. There is a tight labor market right now and lots of movement from one company to another. Thus, the time for updating our standards is now.

Don't forget about the CTA social tonight, from 9:00-11:00. Thanks to all the table sponsors and donations.

Vice President (Andi Burden): Touching on the abandoned and unknown cemeteries- we are looking for ideas on how to identify resources before we get to the point of inadvertent discoveries. Also, CTA is a great place for talk about health and safety while on the job so let's start thinking about those types of conversations.

Past President (Missi Green): It has been a team effort to make sure that CTA continues and we will continue to work together to do this. Thank you to everyone for your help.

Secretary (Amanda Castañeda): As you may have seen from CTA announcements, I recently stepped into the Secretary position after Julie Shipp moved to Sweden in the spring - best wishes Julie!

Speaking of membership renewal, CTA will be using a new system in 2019 and beyond. We are migrating our membership purchase process to a Wild Apricot CTA page that will allow the CTA executive committee to better track and communicate with our membership. Catherine

will send out an email before the end of the year. The fees will remain the same in 2019. Contractor fees are \$150 per year, and you must also have an Individual Membership to be listed on the Contractors list. Individual Memberships fees are \$45 for Principal Investigator, \$30 for Professional Archeologist, \$15 for Student and Retiree (voting), and \$15 for Institutional Member (non-voting).

Treasurer (Eric Schroeder): I'd like to give recognition to Maggie Moore as I transition into the position and the teamwork. I've been busy with my dissertation, but in general the status of the budget is fine. If you are on a standing committee, be sure to check the budget for your committee. There may be funds in case any of you have to travel. The budget committee will meet after the New Year, an invitation will be sent out. We have some money sitting into a money market account and I want to talk about moving it into a place where it can get more money.

Vote on Budget: motion to accept, yes. No objections.

Newsletter Editor (Tina Nielsen): Thanks to everyone for their newsletter contributions. There was a sign in was sent around today, please sign it. I will be hosting the spring training, so look for emails to for help out with that.

Agency Reports

Texas Historical Commission (Pat Mercado-Allinger): I'll talk quickly on several topics today.

Review and compliance

Reminder—Please use the eTRAC system for submitting your requests for coordination and draft reports. Approximately 70% of reviews coming in via eTRAC. It enables you to check on the progress of your review. Don't email individual reviewers with report drafts, you will be directed to eTRAC. Please do share your comments about system with reviewers.

The automation of the antiquities code permitting process is underway. Abstracts improvements are beginning and an article detailing our goals and proposed changes will be submitted to the CTA newsletter editor. Initial efforts involve the automation of 60-day notices and other correspondence relating to permits. Question to the group- if you have issues with receiving electronic letters for your clients please let us know (if they need to have a signature). There will be a thorough article in the upcoming newsletter discussing the enhancements to that process.

Texas Archeological Stewardship Network

There will be a TASN symposium tomorrow morning from 8:00am to 10:00am in Ballroom C featuring presentations by stewards highlighting their projects.

The August workshop was held at San Felipe de Austin SHS, a THC property, on Saturday August 18th. A marine track included tours of the USS Westfield exhibit at the Texas City Museum and the Battleship Texas on Friday, August 17th. At San Felipe de Austin the stewards, staff, and guests were treated to tours of the site of Stephen F. Austin's 19th century colonial capital and exhibits in the new museum.

Texas Archeology Month

TAM was a great success this year with 129 events this year in 61 communities in spite of some wet weather this month. Please submit next year's events at your earliest convenience.

Curatorial Facility Certification Program

We recertified two facilities- TPWD and Texas State University repositories were approved for recertification at the July 2018 quarterly business meeting of the Texas Historical Commission. Coming up in 2019 will be will be the consideration of the Panhandle Plains Historical Commission.

Marine Archeology Program

Amy Borgens (State Marine Archeologist) has initiated a re-inventory of the civil war era

Brazos Santiago Depot collection with the aid of volunteer student interns. She is also working with atlas coordinator Michelle Valek to resolve issues with edits to the shipwreck database. Amy has also made a number of field visits: 1) examine a beached artifact mistakenly identified as a ship's rudder; 2) participation in live ROV examination of deep-water gulf shipwreck; and 3) photographic survey of three concrete wrecks in Galveston Bay.

Legislature

The 86th legislature will convene on January 8th, 2019. As reported previously, THC is among the state agencies subject to sunset review prior to the next legislative session. For those of you unfamiliar with the process- Texas state agencies are reviewed every twelve years by staff of the sunset commission. Their charge is to identify duplication of services, inefficiencies, potential cost savings, other issues, and opportunities. Sunset review staff consider each agency's self-evaluation, the results of extensive Q&A with agency management and staff, and produce recommendations to reauthorize (or not) the agency for another 12 years. The report is available online and will inform the legislation to be introduced. Four issues were identified: 1) the state's disjointed approach to managing historic sites limits the best use of the state's resources; 2) the state's approach to the managing historic sites and associated collections is inefficient and wasteful; 3) the THC lacks sufficient oversight of its heritage trails nonprofits to ensure effective use of the state funds; 4) Texas has a continuing need for the Texas Historical Commission.

Personnel

I am happy to report that we recently welcomed Drew Sitters as the Region 1 Reviewer/ Archeologist. A map showing the reconfiguration of the archeology division's regions appears in the latest CTA newsletter.

We also sadly bid farewell to Lillie Thompson who retired after 40 years of service to the THC but

are pleased to introduce Nick Barrett as the new antiquities code permit coordinator. Nick earned his BA in anthropology at Texas State University and has worked for other state agencies and is familiar with management of database systems and is already working with the IT team to automate the permit processing system.

Texas Parks and Wildlife Department (John Lowe): State Parks people are around so go talk to them if you have question about their projects. Two positions are in the interview process right now- 1) Survey team position that is based in Austin and 2) Houston Regional Office. Finally, Powderhorn State Park and Wildlife Management Area was finally transferred to TPWD on Oct. 1.

Texas Department of Transportation (Scott Pletka): RFP just got posted this morning, archaeological general services contract, issuing 4 contracts in total. A pre-proposal conference will be held Thursday Nov. 8 at the TxDOT offices. I encourage you to attend because it allows for instant feedback and answers to questions about the process (especially paperwork). The deadline for asking questions for November 15th, and the deadline is December 4th. There is a relatively short turnaround time for these.

There has been an upswing in new right away projects and other things that require new work so be on the lookout for that.

Many TxDOT employees are giving presentations this weekend- go check them out. As well as Charles Frederick's presentation about the possible pithouse in south Texas.

Texas Archaeological Research Laboratory (Marybeth Tomka): We've had some personnel changes - Jean Hughes retired and now Jeff Arnold is in that position, reach out to him for questions. Lauren Bussiere has moved on to the world of CRM and someone has stepped in to it for the mean time; however, the position will get posted eventually.

Please come over to our symposium later today
The modifications to our vault storage are finished. There was an increase in fees recently, we don't have control over this—it's controlled by the university.

Also, the database system is more stable and there is a SQL background to the database.

Please come ask for help and don't be shy.

Standing Committee Reports

Auditing (Mark Denton): No reports today. The audit will be completed before the spring meeting.

Budget Committee (Eric Schroeder): No report from the committee. I need to confirm who is on this committee. Come see me after the meeting please.

Communications (Catherine Jalbert): The old Yahoo group is officially shut down. CTA is going to move to a Wild Apricot membership management software. This will allow us to better track all of our membership, and will allow us to better communicate to each other. If you pay a contractor listing fee, you are required to have a PI membership so in the new systems the contractor fee will include the PI membership as well. You can set up reoccurring payments, it will send you reminders, invoices, etc. There will also be integration with the "members only" section of the CTA webpage. I will send an email by the end of the year with details for the new system.

Contractors List (Erin Phillips): Last year we had 48 contractors, this year we are up to 49. We are fairly stable so we should be able to move forward with our budgets looking at having that number.

Curation (Marybeth Tomka): I pulled together comments from our members. We are working towards creating standards for the Curation

Committee.

As for news from TARL- Jean Hughes just recently retired, thank you to everyone who came out to help celebrate her legacy with us.

Governmental Affairs (Nesta Anderson-State, Duane Peter-Federal):

Nesta Anderson: Legislature will be heading into the next session for January

We will keep members in the loop, go to the website Capitol.texas.gov. (Forward from Jon)

Duane Peter: Not present today.

Membership (Katie Canavan): Not much to report at the moment except that Crystal Dozier, an award recipient, will be presenting tomorrow at the conference so be sure to check that out.

Multicultural (Mary Jo Galindo): This committee acts as a liaison with the multicultural committee with TAS and we also contribute to the Native American field school scholarships. Last 2 field schools were at Camp wood, many Lipan Apache came the first year (2017) but the 2018 field school had only one member attend. Comanche and Kiowa may be more interested in the next field school in the panhandle.

Nominations (Bill Martin): Andi Burden's term ends in the spring. Amanda will also be leaving in the spring. Please be thinking of who might want to serve as an officer on the organization.

Public Education (Todd Ahlman): Todd is at Plains Conference. Bill Martin reporting - folks need to get their nominations in for the E Mott Davis award so that award does not go away.

Standards and Guidelines Committee (Jodi Jacobson/Nick Trierweiler): Arlo McKee is standing in for Jodi and Nick today. It has been a busy second half of 2018, there have been several ad hoc committees who are lending their expertise and I wanted to say thank you so much

for all of your help. There will be more calls for action and look to volunteer if you wish. Cemetery recording guidelines (Rachel Feit reporting) was spearheaded by Michael Strutt. They met and came up with a series of guidelines and they hope to move on it soon by passing it along. The rest will be covered in the old business section. It will be a tiered/phased roll out in the spring as the different ad hoc committees move at different speeds.

Special/Ad Hoc Committee Reports

History (Reign Clark): No report.

TxPAN (Maggie Moore and Casey Hanson): Todd Ahlman (ED). Only one conference call since the last meeting. TxPAN's first project is a mitigation project for the Witte Museum. It will be hosted through the TxPAN website when that happens.

Old Business

Update on Standards and Guidelines Committee work (Arlo McKee): Arlo gave a presentation that outlines the progress of the Standards and Guidelines Committee. The committees have been very busy.

In Progress: Field Survey (Trierweiler), Mechanical Prospection (Abbott), Cemetery Recording (Strutt), and Remote Sensing (Mangum)
Planned/Pending: Reporting Guidelines, Underwater (Borgens), Curation, Electronic Data Collection/Reporting (McKee)

Arlo presented the Survey and Mechanical Prospection Standards today, the floor was then opened to solicit comments so he can revise/edit and then print the proposed standards in the 2019 newsletters. It was noted that we may need to check the bylaws to see if it needs to be published twice before it can be voted. Tina offered to do a special edition newsletter for the standards if need be. *This later became resolved by a note from Pat Mercado Allinger at the end of

the meeting.*

SURVEY STANDARDS

Arlo gave a brief presentation regarding the proposed survey standards that only covers field work. They are trying to come up with a baseline, the minimal acceptable standards. The floor was then opened for discussion.

Mark Denton - ground surface visibility seems to always be a problem even with the old standards. We should consider whether it needs to be included at all, most archaeologists always do shovel tests on sites even if there is more than 30% ground visibility.

Solution? Always do a shovel test, even if you have 80% ground visibility

Scott Pletka - What were the reasons for keeping a 30 meter interval for transects? He suggested that a justification of what thoughts and analysis went into this decision should be included in the standards document.

Haley Rush - GSV should be tied to other factors before not digging. Shovel testing should be decided based on multiple things - If you have X% of ground visibility in X setting then...

Robin Barnes (TPWD) - there are many instances where there is over 30% visibility but there is absolutely potential for buried sites. She is agreeing with a point that Tina made early in the conversation.

Ann Scott - we need to think about the eligibility of a site. If there are not shovel tests dug, how can you make any comments about the vertical integrity of the deposits?

Jack Johnson - He still does shovel tests out in west Texas. The bedrock is uneven and the sediment deposits are variable. There are likely buried deposits.

Ron Ralph - Section 106 projects need to look on both sides of waterways.

Arlo McKee - We may need to tighten the language and say that subsurface testing is required for all sites and projects. The crowd had widespread agreement on this statement.

Jimmy Barrera - Mentioned he was not representing FW COE at the moment, so he will not comment on their behalf. However, he said he personally was liking and agreeing with everything he was seeing and hearing in presentation and from the crowd.

Ann Scott - While you may want to have shovel testing, if you have reasons for not doing so, (e.g., you can tell its only 2 cm sediment, etc.) then you need to document that instance and give the reasoning.

Scotty Moore (Cox McClain) - in Arizona, folks would ask what is a shovel test? Does anybody know of any interstate communications/studies looking at the variations in the regulations?

Rich Weinstein - I've worked from Florida to Texas and Tennessee, each state is different but regardless shovel testing has always been beneficial. We need to look at the rules and regulations for each state and see why they have come up with the stuff they have come up with. We may need even deeper means (core and backhoe methods).

Arlo McKee - For mechanical prospection the committee did a comprehensive look at the standards in many other states. Texas is doing far less...more on that in a minute.

John Lowe - Remember we are walking transects, we are not horses with blinders, and we are walking a path not an exact straight line. We are keeping an eye out for things in our vicinity/surrounding. Also, Christian Hartnett gave a paper last year

(with a follow up this year) comparing the site recording vs. Arkansas vs. Louisiana. *Question - I do a lot of habitat restoration, they might be doing ground disturbance to only 6 inches. Thus, I might only dig a shovel test only 30 cm deep even if I suspect there are cultural deposits at 50 cm. Under these guidelines, do I need to dig a shovel test that deep even if the project will not affect the area?

Arlo McKee: Thought depth of APE was written into the options for terminating shovel tests. Concluded this was part of deep prospection and conceded that we need to consider this point.

Douglass M - We will have to find some way to show that in the sites atlas.

Arlo McKee: Read and review reports.

Rachel Feit - Standards cannot replace common sense. We might be parsing a bit too much. We need to set some basic standards that are workable and keeps firms on a common baseline.

Haley Rush - We all work for companies that are doing business. If we are not sure what the standards are, how can we budget properly? If we are all working within a good framework, we should be okay.

Maggie Moore - We have a lot of firms coming into the state. We do need to have very specific language for people who are not as familiar with the area

Arlo McKee - We want more comments, we want to vote in the spring so please continue to give us feedback.

MECHANICAL PROSPECTION

Arlo gave his presentation, and noted there will be a "cheat sheet" guide for folks to have on their clipboards, etc. The floor was opened for comments/discussion.

Rachel Feit - Are those things minimum standards? Or best practices?

Arlo McKee - Both, we highlight in the document what are considered standards vs. best practices. The written document is more explicit than this presentation.

Rich Weinstein - A 20 inch mechanical auger will be helpful to find sites but that is not always possible in every environment. I've used hand turned bucket augers successfully so I think limiting those is a mistake. Especially in particular environments like marsh settings.

Arlo McKee - Very duly noted. The concern we have is that if we suggest there are some settings for hand augers, then it opens the door and most firms will have a way to lessen costs and not bring in machinery.

Unknown - you could also tighten the interval as well when using a hand auger.

Arlo McKee - Suggested it is a volume issue relative to shovel tests for finding artifacts. Queried whether a higher ratio of hand augers would be appropriate to consider. No clear response to this was given from the crowd. Stated committee would consider Weinstein's comment in committee.

Scott Pletka - Dating back to the 80s there is a large literature that deals with shovel test prospection. There is intersection probability and there is detection probability. The question of appropriate diameters speaks to the detection probability. We are coming back to the "one size does not fit all" idea. It comes back to looking at what we know about the sites and their characteristics.

Arlo McKee - Intersection probability was considered from Atlas GIS data. Detection probability is incredibly difficult, to impossible, with the current state of Atlas database.

Jon Lohse: This will also be open to commentary in the future. Please engage with Arlo and the committee.

Catherine Jalbert: Will the PowerPoint be provided for display on the website?

Arlo McKee: These have intentionally not been passed out widely because we do not want them to get out before they have been voted upon.

Andrew: It would be useful to have the standards and guidelines to begin understanding how these standards might impact budgeting, research designs.

Pat: The proposed changes only have to be put into the newsletter once or a special announcement to the group 15 days before the meeting.

New Business

Bill moved to vote for: Special Election for Amanda Castañeda as Secretary
Moved to vote, all yay.

Erin made motion to adjourn.

Meeting Adjourned at 11:20 am.

Proposed 2020 CTA Budget

3/5/2019

Category/Budget Item	Fees/Amts	INCOME			% of Inc.	EXPENSES		Proposed 2020 Balance
		Proposed 2020 Income		Proposed 2020 Expenses		% of Exp.		
		No.	Amt					
Memberships		205	\$ 7,350.00	35%			\$ 7,350.00	
Principal Investigator (\$45)	\$ 45.00	110	\$ 4,950.00	24%			\$ 4,950.00	
Professional Archeologist (\$30)	\$ 30.00	65	\$ 1,950.00	9%			\$ 1,950.00	
Student/retiree (voting) (\$15)	\$ 15.00	25	\$ 375.00	2%			\$ 375.00	
Institutional (non-voting) (\$15)	\$ 15.00	5	\$ 75.00	0%			\$ 75.00	
Contractor Listing Fees (\$150)	\$ 150.00	50	\$ 7,500.00	36%			\$ 7,500.00	
Interest			\$ 4.00	0%			\$ 4.00	
Checking Interest			\$ 1.00	0%			\$ 1.00	
Money Market Interest			\$ 2.00	0%			\$ 2.00	
Scholarship Fund Interest			\$ 1.00	0%			\$ 1.00	
Administration					\$ 1,400.00	6.4%	\$ (1,400.00)	
Office & Supplies					\$ 50.00	0.2%	\$ (50.00)	
Misc. Expenses (see below)					\$ 50.00	0.2%	\$ (50.00)	
Digital Management					\$ 750.00	3.4%	\$ (750.00)	
Square fees					\$ 550.00	2.5%	\$ (550.00)	
							\$ -	
Meetings & Social Events		20	\$ 3,500.00	17%	\$ 5,000.00	22.8%	\$ (1,500.00)	
Spring CTA Meeting & Social	\$ 50.00	10	\$ 500.00	2%	\$ 1,500.00	6.8%	\$ (1,000.00)	
Fall CTA Career Social (\$200)	\$ 200.00	10	\$ 3,000.00	14%	\$ 3,500.00	16.0%	\$ (500.00)	
Committees					\$ 1,000.00	4.6%	\$ (1,000.00)	
General Committee Expenses					\$ 1,000.00	4.6%	\$ (1,000.00)	
Professional Development & Public Outreach					\$ 7,000.00	32.0%	\$ (7,000.00)	
Professtional Development					\$ 2,000.00	9.1%	\$ (2,000.00)	
Public Outreach Events					\$ 5,000.00	22.8%	\$ (5,000.00)	
Grants & Donations			\$ 2,500.00	12%	\$ 7,500.00	34.2%	\$ (5,000.00)	
CTA Student Grants	\$ 1,200.00		\$ -		\$ 2,400.00	11.0%	\$ (2,400.00)	
TAAM Event Grants	\$ 500.00				\$ 1,500.00	6.8%	\$ (1,500.00)	
Archeological Conservancy	\$ 500.00				\$ -	0.0%	\$ -	
TAS Research Support Fund	\$ 300.00				\$ -	0.0%	\$ -	
Texas Beyond History	\$ 2,000.00				\$ 1,800.00	8.2%	\$ (1,800.00)	
TAS Multicultural Program	\$ 2,100.00				\$ 1,800.00	8.2%	\$ (1,800.00)	
Other Donations			\$ 2,500.00	12%	\$ -	0.0%	\$ 2,500.00	
Total Budget			\$ 20,854.00	100.00%	\$ 21,900.00	100.0%	\$ (1,046.00)	

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2019 Membership and Renewal Form

Are you a new member or are you renewing your membership?

- NEW Member RENEWAL (please provide address, if different)

Membership Category (based on calendar year, January-December):

- | | |
|---|----------------|
| <input type="checkbox"/> Company/Contractor Listing
<i>(Company listing also requires one Principal Investigator membership)</i> | \$150.00 |
| Contractor listing late fee (assessed after Spring Meeting) | \$16.00 |
| <input type="checkbox"/> Principal Investigator | \$45.00 |
| <input type="checkbox"/> Professional Archeologist | \$30.00 |
| <input type="checkbox"/> Student/Retiree | \$15.00 |
| <input type="checkbox"/> Institutional | \$15.00 |
|
<input type="checkbox"/> Donation |
\$ _____ |

Total amount: _____ \$ _____
(Please make cheques payable to the Council of Texas Archeologists)

Name (please print): _____
Company/Institution (if applicable): _____
Address: _____
City, State, and Zip: _____
Email: _____

RETURN THIS FORM AND PAYMENT TO:
 Amanda Castaneda
 c/o Council of Texas Archaeologists
 PO Box 963
 Comstock, TX 78837

**For additional information or questions, please contact the following:
acastaneda@shumla.org or counciloftexasarcheologists@gmail.com**

CTA Photo Page - Fall 2018 Careers in CRM Social



The buffet!



Raba Kistner's table.



Overview of festivities.



Overview of festivities.

COUNCIL OF TEXAS ARCHEOLOGISTS

GUIDELINES AND STANDARDS FOR CURATION

**Prepared by the Curation Committee
Revised Spring 2019**

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Appendices

Appendix A. **Federal and State Laws**

Appendix B. **Useful Terms**

Appendix C. **Example of a Project-Specific Field Curation Protocol**

The Council of Texas Archeologists Curation Committee and its predecessors have a long history in developing curatorial standards. This document replaces the Council of Texas Archeologists Guidelines for Curation Standards and Procedures as amended. Professional archeologists can refer to these updated guidelines when preparing and organizing archeological research collections for long-term curation. These guidelines and standards will be reviewed and updated (if needed) every five years.

1 INTRODUCTION

Archeological sites are unique and nonrenewable cultural resources. Archeological investigations often result in the partial or total destruction of sites, leaving the archeological record consisting of the physical objects (i.e., artifacts, samples) and the associated documentation (e.g., permits, field/laboratory records, photographs, reports). These collections are the data sources for both present and future research and interpretation, and represent the cultural patrimony of the federal government, the state, and private landowners. Accordingly, it is necessary to systematically document, process (e.g., clean, label), inventory, and permanently house these collections in perpetuity. Selecting a museum or repository [herein repository] to provide professional and systematic curatorial services on a permanent basis should be of utmost concern and consideration to all members of the archeological community, and should be chosen in line with requirements for federal collections as set out in 36 CFR Part 79. and for state-associated collections as outlined in Chapter 29 of the Texas Administrative Code .

Archeologists working on projects/research are encouraged to utilize these guidelines into developing project budgets, schedules, and personnel requirements. Repositories are encouraged to refer to these guidelines when considering institutional staff and policy development, long range planning, and modification/expansion of facilities.

When a qualified archeologist conducts a cultural resource survey, excavation, or other study, the research design should contain the collection strategy and curation plan approved by the lead agency. Ideally, all project planning relating to the curation of project records and artifacts should be done in consultation with the Curator or Collections Manager of the selected repository. The field collection strategy should be governed by a research design that addresses the management and research goals of the project, the types of materials to be collected and curated, and a systematic sampling that is acceptable to the principal investigator, review agencies, and recipient repository. As a minimum, the collection strategy should include provisions for a representative sample of all classes of cultural materials unless there is an overarching concern (e.g., health risk, repatriation of human burial remains, or impracticality of stabilization), and/or protocols for adequately recording and documenting artifacts in the field. Complete objects are generally rare and should receive high priority for collection to facilitate future research and interpretive display. Fragmentary objects with diagnostic attributes (e.g., patterns, complete dimensions, temporal attributes, stylistic attributes, makers' marks, use-wear marks, etc.) are important for comparative analysis and should generally be saved. Material with residues, chemicals, or elements potentially useful for future studies should also be prioritized for retention.

When cultural materials are encountered as the result of a cultural resource survey, excavation, or other study, archival procedures must be followed and decisions must be made by qualified archeologists as to what must be recorded, discarded, or saved for a permanent collection. When eliminating material, archeologists may have to consider hazards to health and safety, irreversible deterioration, importance for scientific research, heritage appreciation, educational value, or its age being too recent to qualify as historical. Such decisions also must consider practical factors, such as weighing the costs of curation against the present and potential heritage and research values of the collections, as well as laws regulating

the disposal of collections such as Chapter 26.17 of the Texas Administrative Code. As it is extremely difficult to predict the potential for research, a conservative approach is recommended.

For collections recovered from submerged environments under an Underwater Excavation permit, conservation treatment of the recovered artifacts is a requirement of the permit. While not required for terrestrial investigations, conservation treatments for certain classes of artifacts, such as metal and organics, may be necessary or at least beneficial for the long-term preservation of the artifact. Archeologists should consult with professional conservators to determine if treatment is required or feasible, what type of treatment is appropriate, and at what cost. Conservation measures should be completed before acquisition by the permanent repository, as part of the project proposal costs. Once accessioned by a repository, any subsequent conservation and maintenance measures are the responsibility of the repository.

Recording practices and procedures should be coordinated with the Curator or Collections Manager and included in the archeological budget. Of particular concern should be the following:

- 1) All paper products used for field notes, catalogs, labels, tags, and reports should be of archival quality.
- 2) Electronic records should be compatible with the repository's system(s).
- 3) Photographs and other documents should be archivally processed and placed in archival holders.

Identifying labels and/or numbers should be affixed to each artifact with reversible but stable archival materials whenever feasible. For example, organic materials are not suitable for direct labeling, and certain bulk categories may only need to have a percentage labeled.

When preparing a collection for curation following field investigations, further consultation with repository staff may be necessary if the recovery varies from what was discussed in the research design. Such considerations could include the concerns of culturally affiliated groups, emergency discoveries in the field, and other factors.

These guidelines pertain to all archeological material collections and documenting records regardless of their origin. Archeological material collections and their documenting records generated through compliance with historic preservation or environmental laws, regulations, and guidelines must be housed at a museum or repository with the capability to ensure adequate permanent storage, security, and ready access to collections by qualified users by law (see Appendix A for list of federal and state laws).

2 GUIDELINES FOR SUBMITTING COLLECTIONS FOR CURATION

Archeological collections consist of records, which document the history of the project, and materials, which are the artifacts, samples, and other tangible remains collected during the course of a project. Collections may consist of records and materials, or they may consist of records only. Typical types of records and materials are discussed in further detail below.

2.1 Pre-Curation Field Strategies

Archeologists should think about curatorial issues and practices from the very beginning of a project, and consider the following best management practices in the field for the collection, handling, and storage of materials collected and associated project records.

Collections management in the field starts with implementing the field collection and statistical sampling methods **presented in the project research design and or/proposal approved by reviewing agencies (ex. a THC reviewer upon application for a Texas Antiquities Permit).**

Example of a Data Recovery Collecting Strategy:

All artifacts, dating, botanical and faunal samples will be carefully collected by vertical and horizontal provenience. Fire-cracked rock (FCR) will be collected only when associated with a cultural feature after thorough documentation, or if it is associated with charcoal or other unique contexts as directed by the crew chief. Samples of feature fill will also be collected. Two samples per feature level will be collected, a 1-liter sample to be processed for further analysis, and a ½-liter sample to be curated for posterity.

Unexpected discoveries at the site may necessitate changes in the collecting strategy and sampling plan. When changes are made, they should be well documented and continue to support the research goals of the project.

An example of a project-specific field curation protocol is also presented in Appendix C.

Reminder: There may be materials either redundant or non-cultural that the PI will want to discard once in the laboratory. THC approval must be obtained prior to such culling in the lab and all sampling and/or discarding must be fully documented and included in the associated records submitted for curation.

2.1.1 Excavation and Field Conservation

Buried archaeological materials are in a state of equilibrium and excavation changes the environmental conditions they are acclimated to. When they are unearthed and exposed to air and different temperature and humidity levels, artifacts immediately begin to react to the changes in ways that are both visible and invisible to the archeologist (Sease 1994). Most often these changes lead to rapid object deterioration. Planning for conservation in the field is therefore essential for the long-term preservation of archeological objects through condition assessment and appropriate actions. When planning for field conservation needs, it is important to consider:

- The types of material remains anticipated.
- What types of conservation treatments may be needed in the field.
- Volume and kinds of archival quality storage materials that will be required to stabilize the materials and safely transport the collection from the field to the lab or repository.
- How the material remains can best be collected to facilitate their long-term preservation.
- Choice of excavation tools affect the materials and condition of an object. You should determine the best tools that will inflict the least harm prior to field work.
- A number of factors, such as water, temperature, humidity, and sunlight, affect the stability of an object in the ground during and directly after excavation
- Always assume objects are fragile and immediately cover up an object or a group of objects that seem unstable.
- Contact a professional conservator for advice on *in situ treatment and methods to remove the object(s)*.
- Objects should be kept in bags or containers with like materials. Improper mixing can cause damage to some objects (e.g., placing bones or soft ceramics in containers with large and heavy lithics).

- Remember that any procedures applied to an object should be reversible (can be later be removed without any damage to an artifact).
- A professional conservator should always be consulted for complex treatments or if there are any questions about correct conservation procedures. In particular, be sure appropriate adhesives and consolidants are selected.

2.1.1.1 SOIL

- The type of soil in which objects are found can be used to anticipate the condition and conservation needs of the recovered artifacts.
- The chart in **Table 1**, outlines the general preservation of objects in some basic types of soil conditions (NPS 2019; Sease 1994).

2.1.1.2 HANDLING

- Always assume an object is fragile. The true condition of an object may not be immediately apparent.
- Handle objects as little as possible. Do not pick up objects by handles, rims, or other attachments.
- Avoid bending flexible objects.

2.1.1.3 LIFTING

- The method chosen to lift an object out of the ground depends on its strength, size, weight, composition, and condition, as well as the condition of the soil matrix.
- Assess the object condition, then record information, sketch and/or photograph the object before lifting it out of the ground.
- Remove as much dirt surrounding an object as possible before removal. Do not flick or pry an object out of the ground.
- Support the object at all times. A pedestal of dirt may be left underneath the object for support while continuing to excavate around it.
- Lifting an object out of the ground with its surrounding dirt (block lifting) is useful for extremely fragile objects. The appropriate method of block lifting depends on the size and weight of the object and on soil condition.

2.1.1.4 BANDAGING AND CONSOLIDATION

- A bandage can be used to support fragile objects once they have been excavated. A bandage consists of gauze or cloth strips wrapped around an object in layers. Adding plaster or resin can strengthen the bandage, but do not glue or plaster a bandage directly to an object. It is critical to apply a separate layer between the bandage and object.
- Backing an object is useful for fragile, flat objects. Backing usually involves the application of a rigid bandage to the object. Some PVA emulsion, Acryloid B72, or plaster can be used for rigidity. Do not use Elmer's Glue-All®.
- Consolidants should only be used when absolutely necessary and in consultation with a professional conservator. The choice of consolidant will depend on the type and condition of the materials involved. Consolidation should not be attempted on waterlogged materials.
- Consolidants can be applied to fragile objects to join pieces and allow for lifting and handling. Consolidants should have: 1) good adhesive and cohesive properties; 2) achieve good penetration; 3) be durable, stable, and reversible; and 4) not alter the appearance of the material consolidated.
- Do not consolidate any material that will be used for dating or scientific analysis.

- Clean an object thoroughly before applying a consolidant. The most common consolidants are PVA emulsions or resins and Acryloid B72. Allow the consolidant to dry completely before lifting the object out of the ground.

Table 1. Soil chart adapted from Sease (1994) and the National Park Service (NPS 2019) outlining the general preservation of objects in some basic types of soil conditions.

		Acidic	Alkaline	Saline	Water-logged Acidic	Water-logged Alkaline	Desert	Arctic
	Ceramics	R-calcareous fillers dissolve	P-basic structure affected	P	R	P	G-wind erosion possible	G
	Lithics	G	G	P-soluble salts	P	P-insoluble salt encrustation	G-wind erosion possible	G
	Glass and Glazes	R-alkali leaching	P-basic structure affected	P	R	P	G-wind erosion possible	G
	Wall Plaster	P	G	P	P	P	G	G
	Shell	P	G	P-soluble salts	P	P	G	G
Metals	Iron	P-corrosion	G	P-corrosion	G	G	G	G
	Copper Alloys	P-corrosion	G	P-corrosion	G	G	G	G
	Lead	P	P-basic structure affected	R	G	G	G	G
	Silver	P	G	G-slight saline P-high saline	G	G	G	G
Organics	Bone, Ivory, Antler	P	G	P-soluble salts	P	P	G	G
	Wool, Leather, Hair	P-deterioration of protein	P	R-dehydration	G	G	G	G
	Wood, Cotton, Linen	P	P	R-dehydration	G	G	G	G

G=Good Preservations; R=reasonable Preservation; P=Poor Preservation

2.1.1.5 PACKAGING

Packaging in the field is often considered temporary, but many times these “temporary” containers end up housing the collections for months even years. Therefore, only archival quality materials should be used and all exterior containers must be labeled immediately with an attached box tag. Therefore, complete bags should be put away in a larger protective container (properly labeled) and checked throughout the fieldwork until it is transported to the lab. Tyvek tags or paper tags that are protected by their own smaller Ziplock bag can also be placed inside the artifact bags in order to ensure the provenience information remains intact even if the sharpie fades away. Artifact bags should be 4 mil self-closing zip top bags (same as required for curation). Never use paper lunch sacks or bags that do not close on their own (no string or twisty ties to close bags). Boxes or bins should also be closeable and water resistant.

For most materials, it is often best to keep them stored in similar conditions to how they were buried; acclimation to new conditions should be slow. In general, if the in-situ context is dry, you should keep the objects dry after excavation. Alternatively, if it is damp or wet, slow drying is best. Waterlogged organic materials like wood or bone should be kept wet until a conservator can treat them. Other things to consider include:

- Don't place objects in direct sunlight to prevent condensation
- Pack objects of different materials separately
- Don't fill bags too full
- Don't put heavy objects on top of light ones
- Make sure objects are well supported if fragile
- Plan ahead, especially if specialized packing is needed
- Assemble a field kit

2.2 Arranging for Curation with an Archeological Repository

In choosing a repository, the archeologist should consider the existence of previously excavated collections, with the aim of keeping collections from the same site together whenever possible. In particular, it is most important that materials be housed in the state of origin. The archeologist should confer with the selected repository as early as possible in the project planning process regarding specific curation guidelines required by that particular facility.

2.2.1 Letter of Request for Housing

Texas Antiquities Code permits require that the PI select a final repository for the collection, but only requires proof of acceptance once the collection has been submitted for curation. Nonetheless, a request for housing should be submitted to the repository by the archeologist prior to the preparation of collections. This letter provides advance notice to the repository that the archeologist intends to submit collections for curation; this might not be necessary in the case of records-only collections). By requesting housing at the start of a project the archeologist will know in advance if the selected repository agrees to take the resulting collection for curation and be able to plan processing of the recovered materials and records kept that fit the curation standards of the repository. Basic information typically included in the letter is:

- Name of submitting archeologist
- Name of sponsoring individual/agency/institution
- Nature of investigation
- Date of investigation
- Project area and/or site(s) location(s)
- A need for housing material and documenting records collections (e.g., a collection may include records only)
- Projected date for curation
- Specifications of ownership and legal responsibilities

Examples:

Texas Archeological Research Laboratory (TARL):

<https://liberalarts.utexas.edu/tarl/files/pdf/tarlcurationform1-rfh-pha-2018-2.pdf>

Center for Archaeological Research (CAR):

<http://car.utsa.edu/CARcuration/CurationSOPForm.html>

After the archeologist submits a letter of request for housing, the repository will provide a provisional housing agreement. This document is the repository agreement to provide curation for the collection assuming that the repository's curation requirements are met.

2.2.2 Letter of Transfer/Ownership

Appropriate documents delineating transfer of ownership or specific custodianship must accompany the collection into curation. These documents let the repository know that the archeologist has the permission of the individual or agency to turn over the collections to the repository for curation. Upon transfer of materials from the archeologist to the repository, the archeologist must submit this transfer of ownership which specifies ownership of the collections to be curated, and clarifies any legal responsibilities to be assumed by the repository.

Examples:

TARL: https://liberalarts.utexas.edu/tarl/ files/tarlcuriationform6_transfer_2018.pdf (for a private sponsor) https://liberalarts.utexas.edu/tarl/ files/tarlcuriationform7_govt_2018.pdf (for a public agency)

CAR: <http://car.utsa.edu/CARcuration/CurationSOPForm.html>

2.2.3 Letter of Acceptance

The archeologist should ask the repository to provide a letter stating receipt of the collections. Relative to collections made under an Antiquities Code of Texas permit, the "State-Associated Collections Curation Form" serves as the formal letter of acceptance submitted to the THC by the repository in order to satisfy the principal investigator's curation requirements. A repository is not obliged to provide such a document until accessioning of the collection is completed to the satisfaction of the repository.

2.3 Standards for Preparing Archeological Records

Records submitted for curation should be organized and in good condition. Minimally, records submitted to a repository should be sufficient to document the project and its collections.

Examples of records that may be included are:

- Letter specifying ownership of curated materials
- Copies of correspondence (e.g., research design, antiquities permit, THC concurrence)
- Site form with accompanying USGS map portion showing site location
- Maps and mapping notes (e.g., the submission of digital mapping data should be discussed in advance with the repository)
- Daily journal
- Survey or excavation notes
- Photographic log
- Photographs (e.g., prints and negatives, color slides, infra-red, digital images)
- Explanation of cataloging system used
- Field catalog of specimens
- Catalogue or itemized specimen inventory
- Analysis notes
- Digital data (coordinate acceptable formats with repository)

- Transcripts, tapes; oral/historical documentation ·
- Copies of historic documents ·
- News clippings, miscellaneous published materials ·
- Financial and budget records ·
- Bibliographic records ·
- Final report: pdf and hard copy versions (redacted and unredacted versions)·

While each repository will have its own policies and procedures for the organization of records, all archeologists should:

- 1) Include original documents unless an alternate agreement has been reached with the repository. All curated records must be on archivally stable (lignin-free, acid-free) material and must be in archivally stable folders or binders, as appropriate. Large individual records such as maps and profiles are to be on archivally stable paper or polyester film and in archivally stable folders.
- 2) Review all records submitted for curation before submission to ensure that they are legible and reproducible, particularly if they are handwritten or in pencil. Special care should be taken to ensure that secondary documents (typed or rewritten) are accurate.
- 3) Include, as minimum documentation of a site, a completed site form and the location shown on a USGS topographic map (1:24000). The form can be the printout from TexSite. Provide Universal Transverse Mercator coordinates [note which NAD is used], at least to site centerpoint, or latitude and longitude if no UTM ticks are marked. The map plotting should indicate the approximate extent of a site and note any possible continuations. If a site is part of a survey, unless the project contract specifies otherwise, survey boundaries and coverage should be indicated.
- 4) Include a comprehensive records, photograph, and artifact recording system in conjunction with the selected repository (e.g., some repositories use consecutive Lot and Photo numbers and must be contacted for the number assignments).

Examples of curation standards for records:

TARL: <https://utexas.app.box.com/s/k2tcn9afmnc11zwmkheabt2ri2vu5w4>

CAR: <http://car.utsa.edu/CARCuration/CurationSOPForm.html>

2.3.1 Guidelines for Environmental Conditions by Material Type (adapted from NPS Museum Handbook, Part I [NPS 2001])

2.3.1.1 STONE

Dry out damp stone slowly. Unstable (salt-contaminated) stone needs to be kept in a Relative Humidity (RH) below 50%. The humidity level should be kept as stable as possible to avoid further damage by the hydration cycle of the soluble salts. The temperature needs to be at a steady level between 60 and 72 degrees.

2.3.1.2 CERAMICS

Dry out damp ceramics slowly and look for crystallization of salts which can damage the surface. Low fired ceramics are weak when wet, so take care when handling. Similar to unstable stone, keep temperature and RH levels stable.

2.3.1.3 GLASS

Weathered or spalled surfaces are vulnerable to moisture. Controlled humidity at 20-40 % is best.

2.3.1.4 METALS

Dry or damp ferrous metals should be stored in desiccated environment. Silica gel packets and an oxygen free container are the recommended method of desiccation in the field. For iron, the RH should be less than 12%. Nonferrous metals should be stored in desiccated environment of RH less than 35%. Humidity indicator strips can be used to monitor RH in sealed containers.

2.3.1.5 BONE AND WOOD

Dry out slowly if damp. Never place in direct sunlight to dry. RH should be stable at around 50%. Bone found in archaeological contexts is often in poor condition. Be sure to package bone separately from heavier objects and provide sufficient support and padding with archival tissue or polyethylene foam.

2.3.1.6 STORAGE OF SMALL AND/OR FRAGILE MATERIALS

Make sure fragile material is well supported-use acid free tissue or foam. Small objects can be packed in sealable polyethylene bags with added foam or tissue if needed for support. Small finds, like seeds and botanical remains can be stored in polyethylene or polypropylene vials.

2.3.1.7 SPECIAL ANALYSIS SAMPLES

Sample preparation differs with sample material type and technique. Discuss type of analysis to be conducted ahead of time to plan for proper packing. Many dating laboratories offer guidelines for collection and storage on their websites. In general, use materials that will not contaminate samples (ex. place samples in glass vials not to contaminate with modern materials).

Handle materials with gloves or wear other protective equipment to prevent contamination if necessary (ex. samples that will undergo residue studies should never be handled without gloves).

2.3.2 *Field Recording*

The records in the field, as well as in the lab, are vulnerable to a variety of environmental threats as well as mishandling. Some general recommendations to follow in the field in order to promote the long-term preservation and viability of the documentation are:

- All records should be written as neatly as possible (make sure you can discern numbers from one another for example) and with a #2 pencil [NO ink!]. Your writing must be dark enough to be clearly photocopied.
- use appropriate long-lived media for all record types; use permanent and archival stock in paper, ink, lead pencil, folders, and boxes
- inspect and redo damaged or inadequate records
- label everything, or their containers
- use appropriate storage for all media in the field in order to protect them from poor environmental conditions and threat of fire or theft
- carefully consider existing guidelines and equipment for digital and audiovisual media, make sure backup copies and hard copy printouts exist whenever possible (possible exemptions might include remote sensing data); and,

- ensure that project information and data is captured by appropriately knowledgeable staff

2.4 Standards for Preparing Material Collections

When preparing collections for curation be aware that insects are attracted to any dirt that may be found on objects; mold and mildew thrive in darkness on damp surfaces. All uncleaned specimens should be identified on the inventories and the repository must be consulted before submitting these types of specimens. Specimens must be completely dried after cleaning and before packaging and housing with the relative humidity controlled and sufficient ventilation to insure air movement to prevent mold and mildew.

Because some specimens are fragile and hygroscopic, material such as bone should never be soaked in any cleaning agent, and it should be allowed to air dry after cleaning. Force-drying causes additional stress, which can damage the specimen. For specimens in good physical condition: dust or lightly brush off surface dirt. Additional cleaning may make use of water, acetone, or a similar cleaning agent. Consult with a conservator when unsure of how to proceed.

- Dampen surface with a soft brush or cotton swab and rub gently.
- Dry area with a clean cotton swab or soft cotton cloth.
- Allow to air dry; blow dryers or heaters can cause additional stress and cracking.
- Dry completely before storage.

Examples of curation standards for material collections:

TARL: <https://utexas.app.box.com/s/k2tcn9afmncl1zwmkheaubt2ri2vu5w4>

CAR: <http://car.utsa.edu/CARcuration/CurationSOPForm.html>

2.4.1 Labeling

The catalog number should be small, located in an inconspicuous spot, and placed so as not to obscure any distinctive feature. Never place a label on the retouched edge of a lithic tool, the decorated surface of pottery, or the maker's mark or other diagnostic feature of an artifact. For example, always try to label the ventral (smooth) face of a flake or tool and undecorated or difficult to see portions of pottery. For bifacial lithic items, and for all items where there may be a question, try to label the least "photogenic" surface.

Using a two-coat labeling system to insure reversibility while providing stability and imperviousness to moisture is crucial. While the instructions below assume the use of archival ink for labeling, increasingly very small laser printed tags on archivally stable paper are used instead of handwriting on the artifact. In these cases, place the paper label on a base coat of B-72 to adhere the label and use a top coat to seal it.

- 1) Never write directly on the specimen.
- 2) Never use fingernail polish, white-out, or other such substance.
- 3) Apply a base coat of 10% Paraloid B-72 solution for most specimens; use white titanium pigment in B-72 as a base coat for dark-colored specimens. Allow to dry before labeling.
- 4) Use black India ink, Pigma or Millennium pigmented pens for the number. If the base is a dark color, use white-pigmented ink or use a white-pigmented undercoat prior to labeling with black ink or pigment pens. Allow to dry.
- 5) Cover the number with a top coat of 10% Paraloid B-72 solution.

Artifacts too small to be labeled

- 1) Usually sort these artifacts by artifact class or analytic unit.
- 2) Place in 4-mil polyethylene self-sealing bags (or other archivally-stable containers).
- 3) Label clearly. Provenience information must be on a tag made of Tyvek or acid-free paper and enclosed in the container.
- 4) Include information regarding artifact counts and weight totals.

Items not directly labeled; these include organic materials such as human remains, matting, wood, and fur, and deteriorating materials such as metal and flaking/patinated glass or eroding ceramics

- 1) Identify with tags of Tyvek or acid-free cardstock for longer life tags.
- 2) Affix tags without endangering delicate materials. They should not be in direct contact with the material, but may be enclosed in a poly bag or inserted between double bag enclosures (check with repository).
- 3) Treat small items in this category as described above.

Illustrated or photographed artifacts

- 1) Consider identifying artifacts illustrated or photographed in reports and/or publications. Typically these should not be separately housed, but kept with the appropriate analytical groups that they represent. However, coordinate with the curatorial repository beforehand to verify their requirements.
- 2) The information that an artifact portrays in an illustration should be noted in the associated document catalog; reference to the report and the figure number is helpful.

2.4.2 Packaging

- Specimens should not be allowed to roll loosely, bump into each other, or be stacked on top of each other in their container except with certain categories of bulk materials (e.g., burned rock).
- All packaging should be done with acid-free materials, lignin-free materials, or polyester/polyethylene/polypropylene materials. Poly bags should be 4-mil.
- Padding or a similar protective barrier should be used as needed to protect individual specimens within a larger container.
- Avoid packing heavy and light/fragile items in the same box.

Additional details concerning packaging materials:

All packing materials must be archivally stable and acid-free. The materials listed below are some of the most common items used for packaging:

Acceptable Materials: · Acid-free corrugated board and mat board, preferably unbuffered · Clear, polyethylene self-closing plastic bags without pleats · Clear, polyethylene plastic containers · Unbuffered, acid-free cardboard boxes, various sizes · Unbuffered, acid-free tissue paper · Polyethylene foam, preferably foamed with nitrogen · Polystyrene – rigid boxes only · Unbleached muslin, washed 5 or 6 times to remove sizing · Silica gel (packaged)

Unacceptable Materials: · Colored or clear plastic bags with pleats and/or twist ties · Colored plastic containers · Plastics containing PVCs · High acid content or buffered cardboard boxes · High acid content or buffered tissue paper · Paper towels · Newspaper · Any acidic paper products · Glass containers · Rubber bands · Pressure sensitive tapes (scotch, masking, mailing, etc.) · Bubble pack · Cotton Wool · Polystyrene peanuts or beads

Non-archival quality pressure-sensitive tape (e.g., scotch, masking, strapping) fasteners and glues should never be used on documents. Any material in contact with paper records should be of archival quality, reversible, non-yellowing and should not cause damage to the paper.

2.4.3 Conservation

Any conservation treatment should be done in consultation with the repository. Items in very fragile condition should be inspected and treated by a competent conservator. In any conservation procedure, all work should be reversible both in the short-term and long-term.

Adhesive: use a reversible mending agent such as Paraloid B-72.

- 1) Coat the edges of the break with a 10% Paraloid B-72 solution and allow to dry.
- 2) Apply a 20-25% Paraloid B-72 solution as an adhesive to conjoin the pieces; allow to dry thoroughly.

Consolidant: use a reversible product such as Paraloid B-72, but unless you have experience or someone with experience to supervise, this is not advisable.

- 1) Apply a Paraloid B-72 solution from 1% to 10% depending on condition and porosity.
- 2) Allow to dry thoroughly.
- 3) Apply second (or more) treatment(s) if necessary, allowing thorough drying between treatments.
- 4) Conservation treatment records should be maintained as part of the documentation of the specimen.

2.5 Checklist for Submitting Archeological Material Collections

Material collections submitted for curation should be organized and in good condition. Archeological materials submitted for curation could include the following categories:

- Ceramics (e.g., vessels, figurines, sherds, pipes)
- Lithics (e.g., stone tools, debitage, burned rock, comparative materials)
- Glass (e.g., window panes, bottles)
- Metal (e.g., nails, armaments)
- Synthetic materials (e.g., plastic, nylon)
- Faunal materials (e.g., animal osteological, shell, horn)
- Vegetal materials (e.g., charcoal, wood, seeds, pollen, phytolithic, matting, basketry)
- Human remains

It is held that, with only rare exceptions, material collections to be housed have been analyzed, and therefore artifact cleaning, cataloging, preservation, and site-specific specimen-level inventories have been completed according to established guidelines. While specific handling guidelines are formulated by each repository, all repositories require an archeologist to see that:

- Material collections are accompanied by all documenting records, including any analysis records.
- An explanation of the cataloging system is provided.
- While proper cleaning is expected for most items collected, there may be specimens for special studies where cleaning would compromise or change the results of the study. These items should be identified, separated from other collected material, and omitted from the usual cleaning

process. The repository should be informed of this on the request for housing form. If the items are being kept for future prospective tests and will be coming into curation in an unwashed state, this status must be reflected in the records (inventories, packing documents and labels). **All other materials** are to be cleaned and preserved using appropriate reversible, nondestructive techniques. The materials should be accompanied by documents listing these techniques, and the records adjusted to document the items singled out for special studies.

- Specimens needing ongoing conservation are separated and documented. If ongoing preservation costs are not included in the initial fee, additional charges may be assessed.
- All specimens are labeled in accordance with the accessioning, cataloging, and labeling systems of the repository.
- Unless alternate arrangements have been made with the repository, all specimens should be labeled (indelible stamp, India ink, etc.) with a site designation and intrasite provenience. Specimens too small to be numbered and/or large groups of similar specimens retaining original provenience groupings are to be placed in labeled containers to ensure against loss of provenience and/or analysis groupings.
- Fabric or paper tags should be affixed to perishable or fragile specimens that are not to be directly marked upon.
- Tags in bulk samples (e.g., matrix, soil, burned rock) should be enclosed in small plastic bags within bags, or placed in another bag with the tag between the two plastic bags.
- Follow the facility's guidelines of labeling boxes. Some will affix their own tags.
- All paper labels and tags should be acid- and lignin-free.
- Labels in or on containers should provide the following information: site designation, project name and date, provenience data, and analytical group; some repositories also include number of specimens contained within.
- The quantity of bulk samples (e.g., matrix, soil, burned rock, etc.) to be curated is set before submission to the repository. These determinations should consider the potential of samples and specimens for future research and to the limited space for housing in most repositories. Sampling is highly recommended.
- All artifact bags are polyethylene plastic bags, rather than paper bags, in accordance with the packaging system of the repository.
- The use of plastic or cardboard containers in addition to plastic bags is considered when they are appropriate for protection, separation, and/or future use of the collections. Boxes should be sturdy and should fit the size/shape requirements of the repository. The repository may provide the boxes to facilitate submission.
- Following analysis, analytical categories are maintained and **not disassembled**.
- If unusual circumstances exist and a collection is not analyzed, it is packaged according to its field provenience and accompanied by a corrected and updated field catalog.
- A specimen inventory or catalogue accompanies each collection. This inventory must accurately reflect the quantity of material, the analysis, and packaging order. Analytical group designations on inventories should correspond to those used in the final report and on packaging labels.
- Collections should be hand transported to the repository, if at all possible. Where shipping is unavoidable, wrap and pad artifacts to withstand impacts and use a carrier with a tracking system. The box-within-a-box packaging method is preferred. If materials must be shipped, contact the repository in advance for guidance and inform them of the date the materials are shipped and expected delivery date.

3 GUIDELINES FOR TREATMENT OF HUMAN REMAINS

Human remains and objects associated with funerary practices that are either intentionally excavated and deposited for curation or identified in extant collections through consultation must be handled with respect, cared for, and preserved during temporary and/or long-term housing. **Human remains and associated funerary objects should always be in kept in a secure, nonpublic area away from activity.** Where cultural affiliation is known, consultation with the appropriate group or descendants may identify special handling or housing requests that the curation facility will do its best to accommodate.

After excavation, it is important that individuals are kept together and not commingled. In the same way, the remains of a given individual and their associated funerary objects should be kept together (or physically nearby) for temporary and/or long-term housing.

3.1 Cleaning

Human remains are fragile and hygroscopic (attract moisture from the atmosphere). Poorly preserved human remains should not be washed. Always consult with a bioarcheologist or bone conservator for post-excavation treatment. Temperature and humidity fluctuations should be avoided. The archeological lab director/manager may consider having the bioarcheologist or osteologist do the final cleaning.

- Loose earth and dust can be removed by careful, soft brushing and not require washing.
- If necessary, washing should be done with extreme care using lukewarm water to dampen soft brushes and sponges.
- Never completely immerse bone or allow it to become saturated.
- Water should be changed after each individual and frequently when fouled.
- Take care not to damage tooth enamel or to remove deposits of dental calculus; always use a damp sponge, never use a brush.
- Handle the cranium with particular care and ensure that all soil is removed from its interior; soil left in any hollow bones will shrink and harden, causing considerable damage.

3.2 Drying

Once the remains have been dry brushed or washed, dry completely at room temperature and out of direct sunlight and away from hot light sources, ultraviolet lighting, ventilation or heat ducts, exterior walls, and windows.

- Bones should be laid out to dry in such a way as to minimize the possibility of the remains of different individuals being mixed.
- Never apply preservative agents, consolidants, varnish, glue, or adhesive tape to human material. Painter's tape has been shown to hold during analysis and is easily removed after.

3.3 Cataloging and Labeling

- Do not write directly on the bones or associated funerary objects.
- Use an acid-and lignin-free paper label or other archival labeling material (e.g., Tyvek tags).
- Attach label inside and outside of the bag or other packaging.

3.4 Packaging

- If at all possible, requests by descendant groups bearing on packaging and housing of human remains should be accommodated.
- Bones must be completely dry before they are packaged.
- Ideally keep human remains and funerary objects from a single individual burial together.
- Bones should be individually wrapped securely with enough padding to prevent damage.
- Padding or a similar protective barrier should be used to protect individual bones that are stored within a larger container.
- Ensure that the bones cannot fall out of bags or boxes and become lost or commingled.
- All packaging and padding should be done using acid-and lignin-free or polyester/polyethylene/polypropylene materials.
- While it is best to avoid stacking containers that hold human remains, it can be done if the boxes are sturdy and descendant groups are not adverse.
- Human remains and associated funerary objects should always be kept in a secure, nonpublic area away from activity.

4 NEGATIVE FINDINGS PROJECTS

Archeologists are encouraged to submit complete collections of records resulting from negative findings projects, that is, archaeological projects that do not record any new sites, revisit or reassess existing sites, collect any archaeological material from sites, or collect individual finds. However, Archeologists may choose to abide by the following requirements in lieu of submitting complete records-only collections from Negative Findings Projects for curation. Submissions are further dependent on the repository's rules when they deviate from the items enumerated below:

- 1) Archeologists will submit to a designated curatorial facility for curation, one hard copy and one digital copy of the final report (note some repositories might require two hard copies of final reports). According to the CTA Guidelines for CRM Short Reports, final reports must:
 - a) Include copies or scans of field forms generated during the project attached to the report as an appendix. These field forms must include at a minimum: a subsurface testing log indicating the locations and results of any and all shovel tests, auger holes, or backhoe trenches; and any field notes or daily journals. The appendix should be included in both the review draft and the restricted final draft sent to the THC.
 - b) be accompanied by the signed request for housing and letter of transfer form(s).
 - c) minimally provide enough photos to adequately depict field conditions and an associated photo log. These photos should minimally include general project area views, representative pictures of shovel tests, pictures illustrating major disturbances, and photos of the survey crew working on the project.
 - d) Include copies or scans of all project correspondence records, including coordination/notification letters and proposals as appendices.

Only reports meeting these requirements will constitute the complete record of the survey.

- 2) Original records may be retained indefinitely or discarded by the permit holder under the disposal rule provided in Title 13, Part 2, Chapter 26, Subchapter C, Rule 26.17 (f).

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APPENDIX A

Federal and State Laws

Federal Laws

Antiquities Act of 1906 provides for the protection of historic, prehistoric, and scientific features located on federal lands. It authorizes the President to designate as National Monuments historic and natural resources of national significance located on federally owned or controlled land. The Secretaries of the Interior, Agriculture, and Defense are authorized to issue permits for archeological investigations on lands under their control to recognized educational and scientific institutions for the purpose of systematically and professionally gathering data of scientific value.

<http://www.cr.nps.gov/local-law/anti1906.htm> <http://www.nps.gov/archeology/tools/laws/AntAct.htm>

National Park Service Act of 1916 establishes the National Park Service to manage our nation's parks and to "conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such a manner and by such a means as will leave them unimpaired for the enjoyment of future generations."

<https://www.nps.gov/grba/learn/management/organic-act-of-1916.htm>

Historic Sites Act of 1935 establishes as a national policy preservation for public use of historic sites, buildings, and objects. This act led to the eventual establishment within the National Park Service of the Historic Sites Survey, the Historic American Building Survey (HABS), the Historic American Engineering Record (HAER), and the National Historic Landmarks Program.

http://www.nps.gov/history/local-law/FHPL_HistSites.pdf

Curation of Federally-Owned and Administered Archeological Collections (36 CFR Part 79)

<http://www.nps.gov/archeology/tools/laws/36CFR79.htm> <http://www.nps.gov/archeology/tools/36CFR79.htm> http://www.nps.gov/archeology/collections/laws_04.htm

Reservoir Salvage Act of 1960 provides for the recovery and preservation of "historical and archaeological data (including relics and specimens)" that might be lost or destroyed in the construction of dams and reservoirs.

<https://www.usbr.gov/cultural/ReservoirSalvageAct1960.pdf>

National Historic Preservation Act of 1966, as amended, establishes a program for the preservation of historic properties throughout the United States. It created the National Register of Historic Places, State Historic Preservation Offices, and the Section 106 Review Process.

http://www.nps.gov/history/local-law/FHPL_HistPrsvt.pdf
<http://www.nps.gov/archeology/tools/laws/NHPA.htm>

Department of Transportation Act of 1966, Section 4(f) states that the Secretary of Transportation shall cooperate and consult with the Secretaries of the Interior, Housing and Urban Development, and Agriculture, and with the States in developing transportation plans and programs that include measures to maintain or enhance the natural beauty of the lands traversed. The Secretary of Transportation shall not approve any program or project that requires the use of land from a public park, recreation area, wildlife and waterfowl refuge, or historic site unless there is no feasible and prudent alternative.

http://www.cr.nps.gov/local-law/fhpl_dotact.pdf

National Environmental Policy Act of 1969 declares that it is a federal policy to "preserve important historic, cultural, and natural aspects of our national heritage. It requires federal agencies to use a systematic and interdisciplinary approach that incorporates the natural and social sciences in any planning and decision making that may impact our environment.

http://www.cr.nps.gov/local-law/fhpl_ntlenvirnpolicy.pdf

Archaeological and Historic Preservation Act of 1974 amends the 1960 Reservoir Salvage Act by providing for the preservation of significant scientific, prehistoric, historic and archeological materials and data that might be lost or destroyed as a result of flooding, the construction of access roads, relocation of railroads and highways, or any other federally-funded activity that is associated with the construction of a dam or reservoir.

http://www.cr.nps.gov/local-law/FHPL_ArchHistPres.pdf
<http://www.nps.gov/archeology/tools/laws/AHPA.htm>

American Indian Religious Freedom Act of 1978 states that it is a policy of the United States to protect and preserve for American Indians their inherent right of freedom to believe, express, and exercise the traditional religions of the American Indian, Eskimo, Aleut, and Native Hawaiians, including but not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonial and traditional rites.

http://www.nps.gov/history/local-law/FHPL_IndianRelFreAct.pdf

Archaeological Resources Protection Act of 1979 defines archeological resources as any material remains of past human life or activities that are of archeological interest and at least 100 years old, requires federal permits for their excavation or removal and sets penalties for violators.

http://www.nps.gov/history/local-law/FHPL_ArchRsrcsProt.pdf
<http://www.nps.gov/archeology/tools/laws/ARPA.htm>

Abandoned Shipwreck Act of 1987 asserts United States Government ownership of three categories of abandoned shipwrecks: those embedded in a state's submerged lands; those embedded in coral formations that are protected by a state; and those located on a state's lands that are included or are eligible for inclusion in the National Register of Historic Places. The law then transfers title for most of the shipwrecks to the respective states and stipulates that states develop policies to protect the shipwrecks.

http://www.nps.gov/history/local-law/FHPL_AbndShipwreck.pdf
<http://www.nps.gov/archeology/tools/laws/ASA.htm>

Native American Graves Protection and Repatriation Act of 1990 gives ownership and control of Native American human remains, funerary objects, sacred objects and objects of cultural patrimony that are excavated or discovered on federal land to federally-recognized American Indian tribes or Native Hawaiian organizations. The law also establishes criminal penalties for trafficking in human remains or cultural objects, and requires agencies and museums that receive federal funding to inventory those items in their possession, identify any descendants, and consult with appropriate tribes about repatriation.

<http://www.cr.nps.gov/nagpra/MANDATES/25USC3001etseq.htm>
<http://www.nps.gov/archeology/tools/laws/NAGPRA.htm>

Executive Order 13007, Indian Sacred Sites, 1996 instructs all federal land management agencies, to the extent practicable, to accommodate access to and ceremonial use of Indian sacred sites by Indian practitioners and to avoid adversely affecting the physical integrity of those sacred sites.

<http://www.cr.nps.gov/local-law/eo13007.htm>

Texas State Rules, Regulations, and Codes

Antiquities Code of Texas (Amended Sept. 1, 1997) was adopted in 1969 and gave protection to all cultural resources, historic and prehistoric, within the public domain of the State of Texas. The Antiquities Code assigns the Texas Historical Commission as the legal custodian of these resources. Under the Antiquities Code the THC issues permits to conduct archeological investigation of cultural resources to qualified individuals and institutions who demonstrate the capability and willingness to obtain the maximum scientific archeological and educational information from such investigation. In addition, in Chapter 29 the THC, through the CFCP process, also regulates those facilities that can hold state-associated collections generated under and Antiquities Permit.

<https://www.thc.texas.gov/public/upload/images/AntiqCode.pdf>

Rules of Practice and Procedure for the Antiquities Code of Texas

[https://texreg.sos.state.tx.us/public/readtac\\$ext.ViewTAC?tac_view=4&ti=13&pt=2&ch=26](https://texreg.sos.state.tx.us/public/readtac$ext.ViewTAC?tac_view=4&ti=13&pt=2&ch=26)

Texas Administrative Code Title 13, Part II, Chapter 25 Rule 25.6—Collections

[https://texreg.sos.state.tx.us/public/readtac\\$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=13&pt=2&ch=25&rl=6](https://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=13&pt=2&ch=25&rl=6)

Texas Administrative Code Title 13, Part II, Chapter 29—Management and Care of Artifacts and Collections

[https://texreg.sos.state.tx.us/public/readtac\\$ext.ViewTAC?tac_view=4&ti=13&pt=2&ch=29&rl=Y](https://texreg.sos.state.tx.us/public/readtac$ext.ViewTAC?tac_view=4&ti=13&pt=2&ch=29&rl=Y)

APPENDIX B

Useful Terms

Accessibility – The capability of records/collections to be easily and quickly located, organized and indexed/cleaned and cataloged, and be usable by someone other than the original investigator.

Accessioning – The process of transferring title, ownership, or stewardship from the providing source (fieldwork, purchase, gift, transfer, etc.) to the repository/museum.

Accession number – A tracking number unique to a group of incoming collection objects/records, whose purpose is identification, not description; the most common form is the year and order in which the collection is accessioned (e.g., 1997-1).

Accredible standards – Currently acceptable practices and procedures that are greater than minimal; periodically upgraded.

Acid-free – Refers to paper or paper-board products having a chemical pH of 7.0 or higher; loosely-used term referring either to neutral pH or alkaline-buffered materials. However free of acid a paper may be immediately after manufacture, over time the presence of residue chlorine from bleaching, aluminum sulfate from sizing, or pollutants in the atmosphere may lead to the formation of acid unless the paper or board has been buffered with an alkaline substance.

Acid-free alkaline-buffered – Refers to paper or paper-board products to which various alkalines have been added to neutralize acids or serve as an alkaline reserve for the purpose of counteracting acids that may form in the future. Packaging in such materials creates a safety barrier against the migration of acids both into and out of an object. Cellulosic materials (paper, cotton, linen, etc.) require alkaline-buffered or inert surroundings (wrappings, packaging, boxing, etc.).

Acid-free neutral – Refers to paper or paper-board products that have a chemical pH of 7.0, neither acidic nor alkaline. Proteinaceous materials (wool, silk, hair, leather, feather, etc.) require neutral or inert surroundings, as do most photographic materials.

Acquisition – The act of gaining physical possession of an object, specimen, or sample and associated records.

Acryloid B72 (or Paraloid B72) – An acrylic resin (polymethyl acrylate/polyethyl methacrylate copolymer) used as an adhesive or a consolidant; stable and soluble under normal conditions (environmentally-controlled); recommended uses include metals (silver and iron), textiles, lacquer work and wood. Acrylates are known to cross-link (become irreversible) with ultraviolet exposure.

– Chemically an ethyl methacrylate co-polymer, Paraloid B-72 is a durable and non-yellowing acrylic polymer used for consolidating wall paintings (1-5%), fragile wood (5-20%), etc. It may be used as a fixative when diluted with a solvent to secure markings on artifacts and as an adhesive (50%+) for a variety of substrates. Paraloid B-72 is soluble in acetone, toluene, and isopropanol.

Archival/Archival sound/Archival stable – A non-technical term that suggests that a material or product is permanent, durable, or chemically stable and, therefore, can be used safely for preservation purposes.

Associated funerary objects – Objects that, as a part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later, and both the remains and associated funerary objects are presently in the possession or control of a

Federal agency or museum, except that other items exclusively made for burial purposes or to contain human remains shall be considered as associated funerary objects.

Blueboard – Refers to acid-free, lignin-free corrugated board used for packaging and housing material (boxes, supports, etc.).

Cataloging – Assigning an object to an established classification system and initiating a record containing identification, provenience, accession and catalog numbers, and location of that object in the collection housing area; each object in a group may be assigned a unique number.

Collection – A related group of objects or specimens and associated documents and data in the care of a repository/museum.

Collections Management Policy – A detailed written statement that explains why a repository/museum is in operation and how it goes about its business. It articulates the repository/museum's professional standards regarding objects and records left in its care. It serves as a guide for the staff and a source of information for the public.

Collections Manager – (see also **Curator**) A person who possesses knowledge, experience and demonstrable competence in collections care and maintenance including archival methods and techniques appropriate to the nature and content of the collection. A collection management professional should, as a minimum, have experience in collection management and a graduate degree from an accredited institution in anthropology, history, museum studies, or related discipline, or equivalent experience.

Conservation – The treatment of an object to return or enhance its chemical or physical stability; uses interventive methods. Conservation is different from restoration, which is the process of returning an object to its original or previous condition or appearance mainly for aesthetic purposes.

Conservation report – Written report describing the current state of a collection object; includes information regarding the object's provenience, description, and general condition; may include a rough sketch or a photograph of the object. This type of report is ideally done when an object first enters a collection, and thereafter, if it is exhibited, loaned, needs conservation care, etc.

Conservator – A specialist, educated and trained in the preservation and treatment of physically or chemically unstable objects.

Culturally sensitive materials – Objects or materials including human remains whose treatment or use is a matter of profound concern to living peoples who can demonstrate cultural affiliation. Other sensitive components of a collection may include notes, books, drawings, other artworks, photographic media, depictions of human remains, religious objects, and sacred or religious events, and other images relating to culturally sensitive materials.

Curation/Curatorial Services – Managing and preserving a collection according to professional museum curation and archival practices, including, but not limited to:

- Accessioning, inventorying, cataloging, and labeling a collection;
- Handling, cleaning, stabilizing, and conserving a collection in such a manner to preserve it;
- Identifying, evaluating, and documenting a collection;
- Housing and maintaining a collection using appropriate methods and containers, and under appropriate environmental conditions and physically secure controls;
- Periodically inspecting a collection and taking such actions as may be necessary to preserve it; and

- Providing access and facilities to study a collection.

Curator – (see also **Collections Manager**) A specialist educated in a particular academic discipline relevant to the repository/ museum's collections and trained in collections care and maintenance. The Curator is directly responsible for the care and academic interpretation of all objects, materials, and specimens belonging to or lent to the repository/museum; makes recommendations for acquisition and deaccessioning; is responsible for attribution, authentication, and research on the collections and the publication of the results of that research. The Curator also has administrative and (if appropriate) exhibition responsibilities and should be sensitive to sound conservation practices; makes policy in all of these areas

Deaccessioning – The process of legally removing objects from a repository/museum's collections.

Documenting or Associated Records – Original records that are prepared, assembled, and document the efforts to locate, evaluate, record, study, preserve, or recover a prehistoric or historic resource. Some records such as field notes, artifact inventories, and oral histories may be originals that are prepared as a result of the field work, analysis, and report preparation. Other records such as deeds, survey plats, historical maps and diaries may be copies of original public or archival documents that are assembled and studied as a result of historical research. Classes of documenting records (and illustrative examples) that may be in a collection include, but are not limited to:

- Records relating to the identification, evaluation, documentation, study, preservation, or recovery of a resource (such as site forms, field notes, drawings, maps, photographs, slides, negatives, films, video and audio cassette tapes, oral histories, artifact inventories, laboratory reports, computer cards and tapes, computer disks and diskettes, digital data, printouts of computerized data, manuscripts, reports, and accession, catalog, and inventory records);
- Records relating to the identification of a resource using remote sensing methods and equipment (such as satellite and aerial photography and imagery, side scan sonar, magnetometers, sub-bottom profilers, radar, and fathometers);
- Public records essential to understanding the resource (such as deeds, survey plats, military and census records, birth, marriage and death certificates, immigration and naturalization papers, tax forms, and reports);
- Archival records essential to understanding the resource (such as historical maps, drawings and photographs, manuscripts, architectural and landscape plans, correspondence, diaries, ledgers, catalogs, and receipts); and
- Administrative records relating to the survey, excavation, or other study of the resource (such as scopes of work, requests for proposals, research proposals, contracts, antiquities permits, reports, documents relating to compliance with Section 106 of the National Historic Preservation Act (16 U.S.C. 470f), and National Register of Historic Places nomination and determination of eligibility forms, curation documents and agreements).

Federally-associated collections – Archeological collections excavated on Federal lands and Held-in-Trust for the Federal government by designated repositories/museums.

Flammable liquids – Solvents such as ketones (acetone), alcohols, benzines; should be stored in a fireproof (e.g., concrete-lined) cabinet, closet, etc. Labels on containers for all liquids used should be checked for such warnings, and those liquids found to be flammable should be stored appropriately.

Flammable materials – Any materials capable of being ignited easily and of burning with extreme rapidity; should be stored in fire-proof storage area (same as flammable liquids above).

Heating, Ventilation, and Air-Conditioning system (HVAC) – A ducted system that controls temperature, relative humidity, and possibly pollution (gaseous and particulate). The system includes fans with heating and cooling elements mounted in air handlers, humidifiers and/or dehumidifiers, screen filters for filtering particulates (dust), and vapor-phase filters (charcoal, etc.) for filtering gases. HVAC systems range from top-of-the-line systems that accomplish all of the above to ordinary heater/air conditioners similar to those found in residences.

Held-in-Trust collections – Collections generated from public lands that have Federal or State ownership.

Housing – Safe, appropriate containers, furniture, and fittings within which collections are placed for long term storage and preservation.

Human remains – Osteological remains of the species *Homo sapiens*.

Humidity card indicators – Paper cards that change color as the relative humidity changes.

Hygroscopic – A material that absorbs or attracts moisture from the atmosphere.

Inert – Refers to products made of non-reactive, chemically stable materials that are not easily decomposed; these materials, such as polypropylene or polyethylene, have no pH value.

Inventory – A physically-checked, itemized list of the objects in a repository/museum's collections.

Letter of Acceptance – A document from the repository/museum stating acceptance of collections and indicating that the Submitting Archeologist has met minimum curation obligations.

Letter of Request for Housing – A document from a Submitting Archeologist to a repository/museum requesting that the facility curate the materials from a specified project/collection; it provides basic information describing the history of that project/collection.

Letter of Transfer/Ownership – Documents the transfer of ownership or specific custodianship of a collection being curated.

Lig-free or lignin-free – Refers to products that are acid-free and have had the lignin removed. Lignin is a naturally-occurring organic acid that acts as a binding agent in woody plants. It is easily oxidized, resulting in yellowing, embrittlement, and weakening of the products. Lignin has been replaced by alpha-cellulose, a stable form of cellulose derived from cotton.

Material Collections – Artifacts, objects, specimens, samples, and other physical evidence that are excavated or removed in connection with efforts to locate, evaluate, document, study, preserve or recover a prehistoric or historic resource. Classes of material remains (and illustrative examples) that may be in a collection include, but are not limited to:

- Components of structures and features (such as houses, platforms, enclosures, terraces, fortifications, mounds, and pieces of shipwrecks ship's hull, rigging, armaments, apparel, tackle, contents, and cargo);
- Components of petroglyphs, pictographs, or other works of artistic or symbolic representation;
- Intact or fragmentary artifacts of human manufacture (such as tools, weapons, pottery, basketry, and textiles);
- Intact or fragmentary natural objects used by humans (such as rock crystals, feathers, and pigments);

- By-products, waste products or debris resulting from the manufacture or use of man-made or natural materials (such as dumps, cores, and debitage);
- Organic material (such as vegetable and animal remains, and coprolites);
- Human remains (such as bone, teeth, hair, and cremations);
- Environmental and chronometric specimens (such as pollen, seeds, wood, shell, bone, charcoal, tree core samples, soil, sediment cores, obsidian, volcanic ash, and baked clay); and
- Paleontological specimens that are found in direct physical relationship with a prehistoric or historic resource.

Melinex – Archival polyester film from DuPont; dimensionally stable, chemically resistant, non-yellowing (replaces Mylar).

Microfoam – An expanded resin of polypropylene, an inert stable plastic; used for padding of objects in boxes or on shelves.

Mission statement – A written document that states a repository/museum’s institutional philosophy, scope, and responsibility.

Museum – A legally-organized and permanent not-for-profit institution, essentially educational or aesthetic in purpose, with professional staff, that owns and utilizes tangible objects, cares for them, and exhibits them to the public on some regular schedule. A museum may have Held-in-Trust collections generated from public lands.

Mylar – A common trade name from DuPont for a polyethylene terephthalate, an inert, chemically stable plastic. Its characteristics include transparency, colorlessness, and high tensile strength. It is commonly used in sheet or film form to make folders, encapsulations, and book jackets.

NAGPRA – Native American Graves Protection and Repatriation Act. This act was adopted in 1990 (amended in 2010) and requires any federally-funded institution (except the Smithsonian) to inventory collections, develop a list of all human remains and sacred objects for federally-recognized Native American groups. The institution files this list with the Department of the Interior for review by Native American and Hawaiian groups. If an institution is involved with NAGPRA, researcher access, inventorying, and deaccessioning procedures may be affected by NAGPRA.

Negative Findings Projects – Archaeological projects that do not record any new sites, revisit or reassess existing sites, collect any archaeological material from sites, or collect individual finds.

Nitrate negative – An unstable cellulose-based film whose degradation and extreme flammability can harm or destroy photographic collections; long-term preservation of a collection of cellulose-based film negatives would be a frost-free freezer.

Packaging – Archival-quality materials within which objects are surrounded, contained, and enclosed for long term storage and preservation.

Perpetuity – When applied to certain materials bequeathed to or accepted by a repository/museum, to be held and cared for forever.

Polyethylene – An inert, chemically stable, highly flexible, transparent or translucent plastic; comes in the form of sheeting or bags.

Polypropylene – A thermoplastic polymer used in a wide variety of applications, including packaging, textiles, laboratory equipment, plastic parts, and reusable containers of various types; it is rugged and

unusually resistant to many chemical solvents, bases and acids. For archival purposes, it is relatively rigid when in its untreated (oriented) sleeve format, soft when surface-treated in its binder storage pages format.

Preventive conservation – Non-interventive collection care to minimize conditions that may cause damage; includes maintaining proper environmental controls, screening for air-borne particulates, monitoring for pests, and stressing proper handling and good record-keeping.

Provisional Housing Agreement – A written agreement between a repository and a submitting archeologist stating conditions under which the repository will accept and curate the materials from a project turned in for curation by the submitting archeologist.

PVA (or PVAC) – The copolymer polyvinyl acetate. It is a colorless transparent plastic, widely used in years past both as an adhesive and consolidant based on the formula selected. It comes in bead form and is mixed with a liquid carrier (solvent such as acetone). Conservators no longer recommend PVA. Acryloid (Paraloid) B-72 is the appropriate replacement for PVA.

Repatriation – The return of culturally sensitive materials to concerned parties. Repatriation is a collaborative process between scientists and concerned parties in their attempts to interpret and protect people and cultures with respect, dignity, and accuracy. Repatriation is a partnership created through dialogue, cooperation, and mutual trust. The intent of NAGPRA is repatriation.

Repository – A permanent, not-for-profit education or research-oriented agency or institution that provides in-perpetuity legal housing and curation of records and material collections.

Research Design – A written plan that provides the rationales, goals, and methods for investigations of archeological sites including, but not limited to:

- The scientific and anthropological reasons for pursuing the proposed investigation;
- Hypotheses to be tested and the questions to be asked of the data; that is, what the investigator hopes to determine about past human activity, including such items as occupational sequence, settlement patterns, subsistence strategies, chronology, trade and social networks, alliances, etc.;
- The explicit manner in which data will be collected and analyzed, and how these relate to the research goals;
- Plans for consultation with affiliated Native Americans, and/or other cultural groups;
- Inferential techniques to be used to interpret the data; and schedule and work effort estimates.

Reversible – Able to return to a previous state. A process that can be undone; a method of treating or coating an object that is not permanent and can be removed without damaging the item.

Sacred objects and objects of cultural patrimony – Specific items that are needed by traditional religious leaders for the practice of an ongoing religion by present-day adherents.

Scope of collections – Defines the purpose of a repository/museum's collection and sets agreed-upon limits that specify the subject matter, geographic location, and time period to which the collections must relate.

Trinomial Smithsonian Institution Site Designation System – Provides a state number, then a county abbreviation, and finally a sequential number that identifies a particular site recorded in the county. For example, 41LU1 (Lubbock Lake Landmark): “41” designates the state of Texas; “LU”, stands for Lubbock County; and “1” indicates the first site in Lubbock County recorded with the Texas Archeological Research Laboratory at The University of Texas at Austin (state repository for site forms).

Specimen-level inventory – A specimen-level inventory should be project- and site-specific and include:

- Trinomial (and field/temporary site number, if used);
- Lot/catalog number;
- Description of materials and quantity;
- Provenience, including horizontal and vertical values, as well as unit, feature, shovel test, notations, as appropriate;
- Date of collection; and
- Names of collectors and names of catalogers.

Stabilization – Treatment of materials to prevent or greatly limit continued deterioration.

State-associated collections – Archeological collections excavated from State lands

Systematic – Using a methodical and thorough set of guidelines and procedures to gather archeological collections, to house and document archeological records and material collections, etc.

Tyvek – A trade name for a form of polyethylene sheeting; used for wrapping, lining drawers, interleaving, or draping open shelves.

Unassociated funerary objects – Objects that, as a part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later, where the remains are not in the possession or control of the Federal agency or museum and the objects can be identified by a preponderance of the evidence as related to specific individuals or families or to known human remains or, by a preponderance of the evidence, as having been removed from a specific burial site of an individual culturally affiliated with a particular Indian tribe.

APPENDIX C

Example of a Project-Specific Field Curation Protocol

Field Curation Protocol from CAS's Spring Lake Data Recovery Project

All artifacts, dating, botanical and faunal samples will be carefully collected and immediately stored in appropriate packaging (see next section). Never work without a properly labeled artifact bag. Artifacts removed from the unit should be placed immediately in the bag, do not "stockpile" them near the unit or in a bucket as they may get separated from the unit or mixed with a different provenience. Never combine artifacts or sediment from different unit-levels.

It is important that you do not pull up artifacts from the floor of your unit or from the walls. Artifacts in the wall of your unit (provided more than half is still firmly embedded) belong in the next unit over and should remain until systematically excavated. Artifacts in the floor of your unit should be left until fully exposed and then recorded on your level form before removing.

Some levels (your supervisor will tell you which) require that you map in all artifacts larger than a quarter. When excavating around stone tools and debitage avoid the use of metal tools, which can scratch or leave a metallic residue on the artifacts – use bamboo (chopsticks work great when sharpened) or wood.

Keep an eye out for clusters of bone. Some excavations yield quite a lot of bison and deer bone for instance. Carefully excavate around the bone without getting too close to it (it's usually pretty fragmentary). If it turns out to be a large bone we may want to pedestal it and encase it in a plaster jacket. The final, micro-excavation will then be done in the lab by an analyst.

All collected materials will be given unique lot numbers and labeled with this number in addition to associated provenience information. All collected materials will be removed from the work site on a daily basis to ensure their safety.

Buckets - The soil you remove from your unit will be taken, bucket by bucket, and screened for artifacts. It is very important that each bucket you utilize have a piece of flagging tape tied to the handle identifying the unit, level and bag number that is being screened. A second tag with identical information will be placed IN the bucket prior to filling. This labeling will keep the buckets from being mixed at the screen. Larger stones should not be sent to the screens. First make sure they are non-cultural stones and may be disposed of, then put them in a bucket for removal to the backdirt pile.

Samples – Samples, particularly those that might yield radiocarbon dates, are very important and should be taken from the level in situ (rather than from the screen). Keep your eyes open for unusual features or concentrations of items such as shell, bone or charcoal. A 4-liter soil sample will be taken from each level. If you think that you may have found something that should be sampled call your supervisor's attention to it and you will be instructed on how to proceed.

Screening - Screening is done through ¼-inch mesh screens with the aid of water from a hose when necessary. Screening is easier if the buckets are not overfilled and can be presoaked before water screening (let them soak for a while). Do not "scrub" the material through/across the screen. This leaves metal marks on the artifacts. Break apart clumped soil (peds) with hands, not a metal trowel. Flakes inside peds can be sharp, so it is advisable to wear gloves while screening. When buckets are brought to the screens line them up according to unit and level so that the screening team can immediately see if more buckets from the level they're working on are ready. When you select a bucket for screening make sure that the information on the flagging tape tied to the handle agrees with the information on the artifact bag you have been given.

Separate bone, shell, lithics etc. when screening and put them in different bags. All of the bags must be labeled and all will carry the same lot number (aka bag number). Smaller bags can go inside the larger ones when you turn them in.

Things to collect from the screen:

ALL lithics – every lithics flake or angular piece that looks even remotely cultural down to the smallest piece in the screen,

Bone – you are likely to see bone fragments, both burned and unburned, and these should be bagged separately,

Shells – snail and bivalve shells should be saved (esp. snails from deep levels), fossil shells from the limestone bedrock can be noted in the notes and discarded,

Burned rock – burned rock from the deeper strata could be very important, check with your supervisor as to how much you should save,

Exotic materials – any non-local material like petrified wood, alibates chert, quartz etc. (rule of thumb – if it catches your eye and the material looks unusual, bag it),

Pigments – hematite (red) and limonite (yellow) mineral pigments,

Engraved stones – some small, flat, smooth stones in Central Texas may bear elaborate patterns of delicately engraved lines. These engraved lines have been found both on small hand-sized pieces of limestone as well as on the cortical surface of flakes and other chert objects. Pay careful attention to such stones both in your excavation and in the screen so as not to overlook and discard these important artifacts,

Other – items may appear in the screen and catch your eye such as seeds, burned clay, quantities of charcoal, please call the attention of your supervisor to these items.

Collected artifacts are placed in field collection bags. It is important that each bag have the correct corresponding provenience information. In the field, label 4-mil zip-closure bags using permanent marker with the following information:

SITE (*41HY160*)

PROJECT (*Spring Lake Mitigation Project*)

LOT NO. (*assigned in field*)

HORIZONTAL PROV. (*Unit#, Quad #, etc.*)

VERTICAL PROV. (*Level and depth (cmbs)*)

EXCAVATOR (*digger and note-taker*)

DATE (date of excavation)

Features – If features are encountered during the investigations, they will need to be properly mapped, drawn, photographed, and recorded using the appropriate CAS field forms. The feature should be bisected with half the soil dry or wet screened through 1/8-inch hardware cloth and the remainder saved as a bulk

sediment sample. Features should be excavated by cultural/natural layers or within 10 cm levels and the bulk sediment samples should follow the same procedures.

Field Supervisor - The field records are overseen by the field supervisors. Lot numbers (bag numbers) will be assigned in the field by the supervisor and will remain the same regardless of the number of field bags required to complete a single level of excavation. The field supervisor will record the bag number, unit coordinates, excavation level, and top elevation on the Lot Summary Form before a field bag and level form are issued. Both the field supervisor and the project archeologist will need to initial and date the Lot Summary form. In order to prevent identical lot numbers from being assigned to materials of different provenience, only one binder of Lot Summary Forms will exist for the project and must be onsite in order for new lot numbers to be assigned. When the excavation and screening of a level is complete, the supervisor will enter the bottom elevation, material type(s) and date of completion on the Lot Summary Form. The individual who submits the field bag(s) from that level will then initial and date that it is complete. At the end of each day, a Daily Lot Bag Check-in Form must be turned in to the lab along with the artifact bags collected that day.

Forms - There are five basic field forms with which all project staff should be familiar. The most frequently used will be the Unit Level Form. Less frequently used are the Profile Description Form, Unit Summary Form, and Feature Form, and Feature Continuation Form. Supervisors can answer any questions as to the meanings of any of the items requested on forms. Be sure to fill out all items on every form and to always record as many additional notes as possible.