HAS PROGRAM SCHEDULED FOR MAY 14 CANCELLED – BUT YOU CAN READ ALL ABOUT IT HERE!

As most of you are aware, we have had to cancel another one of our monthly meetings. Our much anticipated HAS meeting scheduled for Thursday, May 14th has been CANCELLED due to precautions against spreading the COVID 19 virus. Despite the fact that you will be unable to meet our scheduled speaker, Texas State Marine Archeologist Amy Borgens, in person and hear her fabulous presentation on shipwrecks in Texas, you can still enjoy some of her experiences by reading the book she co-authored entitled La Belle: The Archeology of a 17th Century Ship of New World Colonization, which was the recipient of the 2017 Keith Muckelroy Award.

As most of you know, La Belle was one of Robert de La Salle's four ships when he explored the Gulf of Mexico with the ill-fated mission of starting a French colony at the mouth of the Mississippi River in 1685. La Belle was wrecked in present-day Matagorda Bay the following year, thereby dooming La Salle's Texas colony to failure. The wreckage of La Belle lay forgotten until it was discovered by a team of state archaeologists in 1995. The discovery of La Salle's flagship was regarded as one of the most important archaeological finds of the century in Texas, and a major excavation was launched by the state of Texas that, over a period of about a year, recovered the entire shipwreck and over a million artifacts.

Amy Borgens was appointed State Marine Archeologist at the Texas Historical Commission in June 2010. As the State Marine Archeologist, Amy is responsible for the preservation, protection, and investigation of shipwrecks and other submerged sites in all state-owned waters. Amy has worked in the field of Texas maritime archeology since 1997 and has been associated with several notable Texas shipwreck projects, including La Belle and USS Westfield. In addition, Amy assisted in the excavation of Oklahoma’s only known shipwreck site, Heroine (1838), and participated in the remotely-operated vehicle investigations of early 19th-century shipwrecks at depths exceeding 4,000 feet off the coast of Louisiana (the Mardi Gras and Monterey Shipwreck Projects). Collectively, Amy has recorded historic shipwrecks dating from the Byzantine Period to the mid-20th century and has worked on projects in Louisiana, Oklahoma, Texas, Canada, Turkey, the Gulf of Mexico, and the Falkland Islands.

Her specializations include early nineteenth-century Gulf of Mexico maritime history and the study of historic small arms artifact assemblages. Her experience in the field of archeology includes wreck excavation and documentation, conservation, artifact photography, and illustration. We hope to reschedule Amy’s presentation which was to focus on the Boca Chica shipwrecks off the south coast of Texas sometime soon.

The book is available on Amazon.com at https://www.amazon.com/BelleArchaeology-Seventeenth-Century-Colonization-Foundation-ebook/dp/B06XC9WC7S/ref=sr_1_fkmr1_1?dchild=1&keywords=La+Belle%3A+The+Archeology+of+a+17th+Century+Ship+of+New+World+Colonization&qid=1587401826&sr=8-1-fkmr1

We will update you on the status of future HAS monthly meetings in our next Profile.
President’s Message – Linda Gorski

I hope all of you are continuing to stay healthy during this COVID19 event. It sure has interrupted our schedules, meetings, activities and fieldwork. But it hasn’t dampened our spirits!!!! I keep getting calls and emails asking when we are all going back to digging in the dirt and I hope I can say “soon”. We may all be out there wearing gloves and face coverings but at least we’ll be getting on with it!!!

Despite all the restrictions, this has been a very busy month for HAS. As you’ll see in this newsletter, HAS was awarded the coveted E. Mott Davis Award from the Council for Texas Archeologists for our Kleb Woods Nature Center Public Archeology project. This award is presented annually to the best Public Outreach Archeology Program in the State. Kudos to every single one of you who have participated in this project and made it such a success but especially to our PI Ashley Jones, Kleb Woods Director, Fred Kelly, and HAS members Sharon Menegaz, our education coordinator on the project, and Bob Sewell, the field director. Y’all made it happen!

And talk about undaunted spirit. HAS members Bob Sewell and Beth Kennedy team together twice a year to present a required class on archeology to novice members of the Texas Master Naturalists. Their scheduled presentation on April 6th at the University of Houston was about to be cancelled due to stay at home orders when they were asked to do the program virtually!!! So, they did the program via Webex from the comfort of their homes and it was a huge success. You just can’t keep good people down!

And our fabulous publications team of Dub Crook and Louis Aulbach have also been busy! HAS Report #34 is hot off the press. By popular demand, after his amazing presentation to the HAS in January 2020 on The Peopling of the Americas, Dub has compiled his presentation into a remarkable report. In fact, one of our out of town members who receives his copy by mail said, “This is the best Report I’ve ever read!” Whenever we meet next the Report will be available for free to HAS members as a benefit of their membership.

Copies of the Report are also available to non-members from Amazon.com at https://www.amazon.com/Peopling-Americas-Synopsis-Current-America/dp/B085HHMG8Y/ref=sr_1_1?dchild=1&keywords=The+Peopling+of+the+Americas%3A+A+Brief+Synopsis&qid=1587488175&sr=8-1

And, finally, last but certainly not least, I proudly announce to you that HAS member Joshua Farrar has recently received his PhD from Texas A & M University for his research and conservation efforts on the Civil War artifacts that were sunk in Buffalo Bayou in 1865, dredged up in 1968, and stored in boxes at a local museum until they were discovered and processed by members of the Houston Archeological Society. Many of you attended the HAS meeting last November when Josh gave an overview of his work with these artifacts and the stories they are telling about the Civil War period in Houston.

Through Josh’s research and conservation efforts, many of these artifacts are currently on display at the Bullock Museum in Austin!

Thanks to everyone for all you are doing to “flatten the curve” while still contributing in so many ways to the Houston Archeological Society. Look forward to seeing everyone soon!

Linda Gorski
CANCELLATION OF 2020 TAS ANNUAL MEETING

Due to the current Covid-19 situation and uncertainties with regard to the conditions we might face in October, the 2020 TAS Annual Meeting has been canceled.

Since we will be unable to conduct our annual business meeting in person this year, we will use emails and other electronic means (e.g., the TAS website) to issue the Nominating Committee’s proposed slate of candidates, to request any additional nominations from members, to issue the draft 2021 budget, to elect officers, and to approve the 2021 budget. Awards will also be announced electronically this year and winners will be featured on the TAS website. Based on scheduling guidelines in the Bylaws, you will see more on all of these matters in September and October.

On a much more positive note, we have just signed an agreement with the hotel we were scheduled to use this year (the Omni Houston Hotel Westside at 13210 Katy Freeway) to hold the 2021 TAS Annual Meeting there October 21-24, 2021.

The cancellation of this year’s Annual Meeting is a huge disappointment for all of us, but the Local Arrangements Committee in Houston is already working hard to ensure that the 2021 Annual Meeting will be a fantastic gathering. Till then, please take care and stay well.

James Everett
TAS President
There was no Monthly Meeting due to COVID-19 and thus no minutes

Beth Kennedy, Secretary

Emergency Salvage Archeology Project at Houston Arboretum and Nature Center Suspended

By Linda Gorski

It is with great regret that I announce the end of our Emergency Salvage Archeology Screening Project at the Houston Arboretum and Nature Center. As many of you know, HAS has been screening piles of dirt at the Arboretum since late last year. The dirt was removed from a ravine during construction work at the Arboretum and artifacts that were uncovered during that work showed evidence of being from a late 19th century - early 20th century dump. Due to the potential importance of the artifacts that were being recovered, the ravine dirt was moved to area in the Arboretum near the Educational building and, at the request of the Texas Historical Commission, members of HAS worked to screen the dirt and recover artifacts. In addition, HAS, the Arboretum and archeological CRM firm Gray & Pape partnered to put on an amazing Archeology Outreach Day for kids and adults that was an enormous success!

Unfortunately, due to Covid19, our fieldwork on this time-sensitive project has now been shut down and construction is beginning at our screening site. On Sunday morning, April 26, a “Crew of Six” including Bob Sewell, Louis Aulbach, Larry Golden, Dr. Liz Coon-Nguyen and Frank Kozar covered up with face masks and gloves and practiced good social distancing as we cleaned out the storage container we’d been using to store our equipment and prepared the site for the construction crew. However, the project isn’t over until the paperwork is done!!! As I said, we recovered some amazing artifacts during this project that we’ll be examining as we now go into the research and lab phase of the project. Watch this space for updates.

Thanks to everyone who made this project such an enormous success, especially to our professional archeologist on the project, Mike Quennoz with Gray & Pape, Patti Bonnin, our main contact at the Arboretum and, last but not least, Bob Sewell who did a masterful job as the field director on the project.
HAS MEMBERS RECEIVE E. MOTT DAVIS AWARD FOR KLEB WOODS NATURE CENTER
PUBLIC ARCHEOLOGY PROJECT
By Linda Gorski

The Council of Texas archeologists announced at their spring meeting on April 17th that the Kleb Woods Nature Center Public Archeology Project has been chosen to receive the coveted E. Mott Davis Award for 2020. Named for Dr. E. Mott Davis in honor of his lifelong contributions to bridging the gap between professional archaeology and the public, the purpose of this award is to encourage contract archeological firms and their clients to include outreach efforts in cultural resource management projects.

The primary recipients of this year’s award are HAS members Ashley E. Jones, professional archeologist with Moore Archeological Consulting, Inc, the principle investigator on the Kleb Woods project, Sharon Menegaz, Education Coordinator for the Houston Archeological Society, Bob Sewell, HAS Field Director on the project and Fred Collins, Director of the Kleb Woods Nature Center. Dr. Todd Ahlmann, Director of the Center for Archeological Studies at Texas State University in San Marcos, and Chairman of Public Education for CTA presented the award.

The public archeology program at Kleb Woods Nature Center is designed to educate the public on the history of northwest Harris County, to foster stewardship of both the park and the area’s cultural resources, and to provide archeological data on the property to compliment archival and historical documentation. Kleb Woods is unique, as it is one of two parks in Precinct 3 that retains historic resources and disseminates information on the natural and historic resources in the area. This includes preserving the original house on the property (c. 1895) and a museum display with letters, receipts, and other documents that discuss the Kleb family’s experiences on their farm after immigrating from Germany. Since 2017, the Houston Archeological Society, Harris County Precinct 3 Parks, and Moore Archeological Consulting, Inc. have worked to build a sustainable public archeology program that engages the community through hands-on educational activities.

First awarded in 2001, the E. Mott Davis Award for Public Outreach is conferred at the Spring Meeting of the Council of Texas Archeologists and recognizes outstanding efforts made by a firm, agency, or institution to advance public awareness and appreciation of archeology, and to foster support for the preservation and protection of archeological resources and awareness of how archeology differs from artifact collecting. In presenting the award, Dr. Ahlmann said “The HAS is doing some great outreach these days. You all are setting a great example for the state.”

As soon as we can get back into the field, we hope you’ll join us as we dig up Texas history – one trowel full at a time - at Kleb Woods Nature Center knowing that YOU helped HAS achieve this prestigious award!
HELP WITH TEXIAN CAMPAIGNE # 4

By Larry Golden

Having recently acquired a “Texian Campaigne” plate # 4, with a scene referred to as the “Battle of Palo Alto” manufactured by Anthony Shaw in Tunstall & Burslem, Staffordshire. Shaw marked pieces are extremely rare and rare meaning Winterthur has approximately 60 pieces with no marked Shaw and Bayou Bend having approximately 100 pieces with two Shaw’s. More difficult to find is a close-up of the saddle blanket, the blanket in most pictures seems to have a design across the blanket, this plate has the letters AL SK on the blanket. To all readers, have you seen this, and do you know its purpose?
Notes on Munitions
The Minié Ball (Part 1)
By Tom Nuckols

INTRODUCTION

I have observed this numerous times over the years during the excavation of an archaeological site. Someone will uncover lead spherical ammunition such as shot, buckshot, a rifle or pistol ball or a musket ball, and they will state, erroneously, that they have found a “mini” ball.

The Minié ball was not a small lead ball or shot, but it was a bullet that was actually named after one of its co-developers, a Frenchman named Claude-Étienne Minié. The archetypal Minié ball was a .58 caliber lead muzzle-loading rifle bullet. Its shape was cylindro-conical (a cylinder topped by a cone) and it had a hollow base with three exterior rings called cannulures (see Figures 1 & 2). The Minié ball was designed so that muzzle-loading rifles could be loaded quickly and easily, which brought about the widespread use of the rifle, rather than the smoothbore musket, as a battlefield weapon. Calling the cylindro-conical shaped Minié ball a “ball”, was just continuing the use of a term for ammunition that had been used for centuries, the musket ball.

Figure 1. A .58 caliber lead Minié ball. Author’s collection.

Figure 2. The Minié ball’s hollow base.

THE MUSKET AND THE RIFLE

Before the American Civil War there were two basic firearms in use, the muzzle-loading smoothbore musket and the muzzle-loading rifle. The ignition system on these guns was either a flintlock or the percussion lock. However, with the introduction of the percussion lock system in the 1830’s, large quantities of flintlock firearms, both civilian and military, were eventually converted to, or manufactured with a percussion lock.

THE MUSKET

The musket was basically a martial firearm, and it was manufactured by one of the national armories. The ammunition used in a musket was a spherical lead bullet called a musket ball (or “ball”). Most muskets fired, via black gun powder (powder), a ball with an approximate diameter of three-quarters of an inch. The ball was slightly smaller than the diameter of the bore

---

1 This was the predominate Minié ball caliber used in firearms by both the North and South during the American Civil War. However, there were firearms used on both sides to a lesser extent that fired .54 and .69 caliber Minié balls.
(the inside of the musket barrel) to make it easier to push down the barrel with the musket’s ramrod. This fraction on an inch difference in diameter between the bore and the ball created a gap that was referred to as “windage.”

One of the accoutrements of a soldier using a musket was a leather cartridge box that was positioned at a soldier’s right hip by a belt hung over the left shoulder. The cartridge box held paper cartridges; a paper tube containing a ball and a pre-measured amount of powder. The ends of the paper cartridge were usually tied with string at the ball end and folded over at the powder end to form a sealed unit (see Figure 3).

The idea of wrapping loose powder and a ball together in paper is attributed to King Gustavus Adolphus (1594-1632) of Sweden. At the time, a musketeer (a soldier equipped with a matchlock musket) carried pre-measured charges of powder in little wooden bottles fastened to a belt worn over his shoulder called a bandoleer. Musket balls were carried in a leather pouch affixed to a soldier’s waist belt (see Figure 4). The musket was supported by a rest, standard equipment with the matchlock musket. It supported the musket while firing, priming and adjusting the match cord. After firing, it was used as a short lance for close quarter fighting, a precursor to bayonets that attached to later military weapons. In the early 1600’s, Adolphus ordered his musketeers to carry their powder and ball together in a paper cartridge. The paper cartridge reduced the time needed for reloading, which increased the rate a soldier could fire his musket.

To load the musket, a soldier removed a paper cartridge from the cartridge box and tore the folded end of the cartridge open, usually with his teeth, exposing the powder. If the soldier was using a flintlock musket, he would pour a small amount of the powder into the flintlock’s flash pan, and the rest of the powder was poured down the musket barrel. This was followed by the ball. The ball was left in the paper and both the paper and ball were pushed down the barrel with the ramrod until it rested on top of the powder (see Figure 5). The paper acted as a wad to prevent the ball from rolling out of the barrel if the musket was tipped downward and it also kept the ball from bouncing down the barrel when the musket was fired.

More importantly however, was that the paper destroyed the windage. In firearms parlance, the term “destroying the windage” meant that the paper eliminated the gap between the ball and the bore through which propellent gasses, created by the ignition of the powder, could escape. This placed more energy on the ball and increased its velocity. Muskets were inaccurate. When fired, the ball, because it fit loosely in the musket bore, would take an erratic flight in the general direction of the target. This was not considered important however, as military theory at the time valued the volume

2. The matchlock musket (circa 1475-1650) held a burning match cord in a clamp at the end of a curved lever known as the serpentine. When the trigger was pulled, the serpentine lowered the match cord into a flash pan containing black gun powder priming. The flash from the ignited priming traveled through the touch hole, igniting the main charge of black gun powder inside the gun barrel. The flintlock ignition system replaced the matchlock.
of fire, not marksmanship. Opposing armies faced each other in close shoulder to shoulder formation, so individual targets were not important. What was important though, was to fire as many balls in volleys, on command, in the direction of the enemy in hopes that a good percentage would take effect.

During the American Revolution, British Army Major George Hanger (1751–1824) summed up the accuracy of the musket:

*A soldier’s musket if not exceedingly ill-bored (as many of them are), will strike the figure of a man at eighty yards; it may even at 100, but a soldier must be very unfortunate indeed who shall be wounded by a common musket at 150 yards, provided his antagonist aims at him; and as to firing at a man at 200 yards with a common musket, you may just as well fire at the moon and have the same hopes of hitting your object. I do maintain and will prove, whenever called on, that no man was ever killed at 200 yards, by a common soldier’s musket, by the person who aimed at him.*


REFERENCES

Bussard, Michael  

Nuckols, Tom.  

Peterson, Harold L.  

Schenwolf, Harry  

Sharpe, Philip B.  

tumblr  

Wikipedia  
Another archeological dating technique that has come to the forefront in recent years is Optically Stimulated Luminescence or OSL dating. The OSL technique measures the last time sediment mineral grains (normally quartz but occasionally feldspar) were exposed to sunlight. Since many archeological sites occur near stream or river systems that have deposited sandy sediments, OSL dating offers a potential alternative to radiocarbon dating, especially in sites where carbon material is either absent or no longer contains any measurable carbon-14 due to mineral replacement (petrified wood for example). This technique is becoming more prevalent in Texas where our acidic soils often destroy rather than preserve wood and bone.

OSL dating operates on the premise that once sand (quartz) grains are buried, they are no longer exposed to sunlight and cosmic rays. Once buried, almost all sediments are exposed to natural radiation from minute radioactive particles (alpha, beta, and gamma rays) in the form of \( \text{U}^{235}, \text{U}^{238}, \text{Th}^{232}, \text{K}^{40}, \text{Rb}^{87} \), and their radioactive daughter products. This radiation stems from common radioactive minerals that occur in sediments, such as Zircon (\( \text{ZrSiO}_4 \)) and Monzonite (Ce, La, Nd, Th)(PO\(_4\), SiO\(_4\)). These minerals provide minute amounts of radiation to the surrounding quartz grains. This form of natural radiation will knock electrons within the quartz crystal lattice slightly out of alignment creating a defect in the lattice structure.

A common example of this phenomenon on a macro scale is the dark, opaque variety of quartz known as “smoky quartz”. Intense natural radiation (or artificial in a laboratory) will jostle silicon atoms in the quartz lattice slightly out of their stable positrons. In so doing, the change in the crystal lattice also changes the way light is absorbed and transmitted in the quartz crystal. Thus the crystal changes color from clear to smoky. Placing a smoky quartz crystal into an oven for a few hours will shake the silicon atoms back into their stability holes thus healing the radiation-produced defect and the smoky quartz crystal will return to its clear form.

The same principle only on a micro scale occurs in quartz sand grains. Natural radiation is absorbed by the quartz crystal lattice and over time, this causes a certain percentage of electrons in the crystal structure to move slightly creating lattice defects (referred to as “luminescent centers”). OSL samples are carefully collected in opaque core tubes, either made of metal (aluminum) or black PVC, by pushing the core tube into the sediment wall (see photo below). The sample tube is then further sealed from all light. The sample is only opened and extracted in a laboratory under stringent light-restricted conditions. Samples for measurement are taken from the middle of the collection tube and are processed with a treatment of hydrochloric acid and hydrogen peroxide to remove all carbonates and organic material. The remaining sand grains are sized through sieves and heavy liquid separation. Coarse grains are on the order of 100-200 microns; fine grain samples are typically 4-11 microns in size. The remaining sample is then etched using powerful hydrofluoric acid. The hydrofluoric acid...
removes the “rind” around the quartz crystal leaving only the undisturbed center part of the grain. All of this processing is conducted under highly controlled “dark room” conditions.

The remaining grains of quartz are then heated and exposed to photons (optical stimulation), usually blue-green light, which generates a luminescence response from the quartz grains. The intensity of the luminescence is a function of the amount of time the quartz grain has been buried and thus its age relative to the last time it was on a surface and exposed to sunlight. Costs of OSL dates from commercial laboratories vary but are generally in the range of $500 per sample.

Applications to Archeology

The main difference between OSL and Radiocarbon dating is that the latter dates organic materials whereas the former dates minerals. Because of the delicate nature in observing and measuring the luminescence from sand grains, OSL dates typically have a larger margin of error (±) around the calculated date (typically on the order of 5-10 percent of the derived date). The great advantage of the technique is that age dates may be obtained from areas where no carbon is present to obtain a radiocarbon date. In an archeological site, OSL dates are typically taken from the entire vertical section of the excavation. This generates a sequence of dates which can then used to test the accuracy of the methodology in that the age dates should be in vertical sequence getting progressively older with depth. OSL dating has been used successfully to date the geological sequence exposed at many older-than-Clovis sites including Area 15 of the Gault site, the vertical sequence at the Debra Friedkin site in Bell County, and Meadowcroft Rockshelter in Pennsylvania. The technique is considered reliable up to dates of 100,000 years, and in special instances, up to 300,000-400,000 years.
Houston Archeological Society

Monthly Meeting Programs for 2020

6:30pm Third Thursday of every month (except June)
Trini Mendenhall Community Center, 1414 Wirt Road

May 14, 2020 – Amy Borgens, Texas State Marine Archeologist – Boca Chica shipwreck CANCELLED DUE TO COVID-19

June – Normally no meeting TAS Field School activities.

All Houston Archeological Society meetings are free of charge and open to the public. For more information about HAS then visit our website at www.txhas.org or email lindagorski@cs.com. You can also join our Facebook page at https://www.facebook.com/groups/123659814324626/

Please submit articles for publication to The Profile Editor Bob Sewell at newsletter@txhas.org. Please submit articles for the June 2020 issue no later than 24th May 2020.

FOR MORE INFORMATION ON ARCHEOLOGY IN THIS AREA, CONTACT THE FOLLOWING:

HAS BOARD MEMBERS
Linda Gorski, President, president@txhas.org
Larry Golden, Vice President, ypresident@txhas.org
Bob Sewell, Treasurer, treasurer@txhas.org
Beth Kennedy, Secretary, secretary@txhas.org

TEXAS ARCHEOLOGICAL SOCIETY
Sandra E. Rogers, Region V Director, sojourne@att.net

AREA TEXAS HISTORICAL COMMISSION ARCHEOLOGY STEWARDS
Elizabeth Aucoin, ekpj.ancom@prodigy.net
Louis Aulbach, lral@at.net
Liz Coon-Nguyen, elizabeth.coonnguyenmd@gmail.com
Wilson “Dub” Crook, dubcrook@kingwoodcable.com
Bob Crosser, 281-341-5251
Debbie Eller, debiaajl@yahoo.com
Charlie Gordy, chasgordy@yahoo.com
Linda Gorski, lindagorski@cs.com
Bruce Grethen, bruce0990@gmail.com
Sue Gross, suegbobs@comcast.net
Joe D. Hudgins, manso@jd hudgins.com
Kathleen Hughes, kathleen@kathleen@yahoo.com
Brenda Jackson, brendajacks1@yahoo.com

Wilson “Dub” Crook, Director-at-Large, dal_b@txhas.org
Ashley Jones, Director-at-Large, dal_c@txhas.org
Liz Coon-Nguyen, Director-at-Large, dal_a@txhas.org

Ron Jackson, ronj845@gmail.com
Beth Kennedy, kennedyb1@att.net
Don Keys, dons@don@hotmail.com
Sheldon Kindall, kindall11@peoplepc.com
Sharon Menegaz, gmenegaz@rescaegles.org
Clint Lacy, clacy13@comcast.net
Tom Nuckols, tlnuckols58@att.net
Sandra & Johnny Pollan, pollanone@sbcglobal.net
Sandra E. Rogers (Sandy), sojourne@att.net
Gary Ryman, greyman@gmail.com
Steve Salyer, salyer4@hotmail.com
Jay Rousel, jayroussel1@1791.com
Bob Sewell, tasn@txhas.org
Paul Spana, pcspana@comcast.net