In This Issue | Fall-Winter 2017

Bringing the Special Needs Community to the Museum

Abstract Art Meets Atmospheric Science

Heroes of the Holocaust

Postosuchus: T. Rex of the Triassic
M is for Museum

M = eC^2

Stakeholder engagement for a university museum is a continuum between the university (Campus) and the Community. The Museum must engage with the Campus; it must engage with the Community; and it must facilitate engagement between Campus and Community.

Museum (M) equals engagement (e) by Campus (C) and by Community (C).

Cover Photo:
Harvey Chick
The Texas Liberator: Witness to the Holocaust
Museum at sunrise with desert agave casting shadows.

Photo: Ashley Rodgers
Inside M

M News .............................. 7
Light Up Lubbock .................. 9
Genetic Resources Collection .... 11
Extending Creative Visions ........ 14
Collection Highlight ............... 18
Dr. Robert and Louise Arnold Art Collection 20
Museum Docent profile – Gretchen Scott . . 35
Staff profile – Emily Phillips . . . . 36
Donor profile – Dr. Idris R. Traylor . . . 37
Upcoming calendar ................ 40
Hold Your Event at the Museum . . . 42

12
Lessons Large and Small
By Deborah Bigness

16
Beauty Abounds
By Marian Ann J. Montgomery

22
Bringing the Special Needs Community to the Museum
By Bethany Chesire

25
Abstract Art Meets Atmospheric Science
By Sally Logue Post

28
Heroes of the Holocaust
By Nicole Lundberg

31
Postosuchus: T.rex of the Triassic
By Dr. Sankar Chatterjee
Medici’s Treasures

Having worked mostly in museums for over 25 years, I might expect to know the ropes by now, but one thing that continues to surprise me is that I continue to be surprised. There is always something new happening in a museum, and in multidisciplinary museums like the Museum of Texas Tech University those new things can be eclectic and diverse and surprising. In fall and winter 2017 we present two exhibits that are strikingly different, and launch a new evening program that aims to…well … surprise.

In *The Texas Liberator: Witness to the Holocaust*, we reveal the role played by Texas servicemen of World War II in liberating Nazi concentration camps in Europe. Even today, after our exposure to so many photographs and so many documentaries about the horrors of the concentration camps, it is still hard to conceive of what happened in them. We are still surprised at the depth of inhumanity manifest in those places of ignominy. American servicemen, including many from Texas, walked into a kind of hell when they entered the camps at the close of the war in Europe. Hardened by the battles that they had endured and by the death they had seen, these servicemen were still shocked at what they encountered in the camps.

The exhibition is part of a larger project, *The Texas Veteran Librators Project*. Supported by the Texas Holocaust and Genocide Commission and the Office of the President of Texas Tech University, faculty, staff and students at Texas Tech University have been developing a mobile app for schools that explores World War II and particularly the role of Texans in liberating the camps. A companion book is being published by Texas Tech University Press. There will be a parallel website that allows access to content in the exhibit. So Texas Tech has developed a multi-faceted program, and we are very pleased to have been able to be partners in it through creating the exhibition. These are stories that must never be forgotten.

The second exhibit results from a collaboration between artist and scientist, both of them faculty members of Texas Tech University. *Marcando el relámpago* (Marking the Lightning) is a true STEAM project – where science, technology, engineering, and mathematics are infused with art. Professor Tina Fuentes in the Texas Tech School of Arts has worked with Assistant Professor Eric Bruning in the Department of Geosciences in translating Bruning’s scientific research in storms, clouds and lightning into extraordinary mixed media artworks developed by Fuentes. One can enjoy the art in its own exuberance of color and form, but as well, the aim is to engage the viewer with the science. The two collaborators saw that art could enhance people’s appreciation of the ‘texture’ of the science. This type of project is creative and thought-provoking, and by any measure … surprising.

And to the new evening event. In September we kick off the Museum by Night program on Third Thursdays of the month. From 6-9pm, the Museum will host a variety of activities and entertainments, ranging across short musical, dance and dramatic performances, book and poetry readings, hands-on activities, wine tastings, small short-term exhibits, and much more. Each evening will have a theme and we will always have music and performances, but otherwise each night will be different. These nights are for all the family but we hope to particularly engage with young adults who may not think of the Museum as a place of sophisticated entertainment and experiences for people their age. We aim to change that perception.

You can read more about both exhibits and the Museum by Night program in this edition of M. Come to the Museum … and be surprised.

Gary Morgan Ph.D.
Executive Director
Make a difference –
Be a Museum supporter

In resolving the biannual State Budget for 2018-20, the Texas Legislature reduced its funding for Special Line Items. Special Line Items are defined programs that have been identified and financially supported by the State. At the Museum of Texas Tech University, our educational and exhibit programs, as well as research programs at Lubbock Lake Landmark and Natural Science Research Laboratory, have been partly funded in this manner.

The reduction in State funds from 2018 will impact negatively on all areas of Museum operations. More concerning, there is a suggestion that from 2020 onwards Special Line Items may cease altogether. This would result in fundamental and foundational impacts on the Museum.

The Budget pressures on the State are real, and it is understandable that hard decisions will need to be made. However, the role of the university museums such as the Museum of Texas Tech in training the museum and heritage managers of the future and in delivering educational programs across the arts, humanities and sciences, is a vital one to maintaining a rich cultural and learning environment in West Texas. Being a free-to-enter museum means that the Museum of Texas Tech University can cater to the widest of audiences, including those from disadvantaged socioeconomic backgrounds. With reduced, or ceased, State funding, our capacities to serve those audiences will be dramatically curtailed.

We need your help to maintain our exhibits, educational programs, research, and collection care. You can assist us in two ways.

Firstly, you can communicate with State representatives about the importance of the Museum of Texas Tech University in the cultural and educational fabric of Lubbock and West Texas. Be proactive, be vocal.

Secondly, you can support us through becoming a member of the Museum Association and through cash donations, other gifts, and planned giving. Today, our endowment interest funds 45% of Museum operations, a very high percentage but not enough for a changing future. It is essential that the Museum grows its endowments, so that staffing levels can remain adequate to sustain viable operations across all of our functions.

If you believe in the Museum of Texas Tech University and want it to remain an outstanding center for culture and the arts, sciences, and the humanities, then be a vocal supporter and be a generous supporter. Like the Museum itself, you can make a difference.

Gary Morgan
Executive Director

To join the Museum Association, see the Association's section later in this edition of M.

To discuss giving to the Museum, contact the Museum's Development Officer at e.phillips@ttu.edu.
**Fifth Annual International Arts and Culture Symposium**

On April 1, 2017, the Museum and Sowoon Arts and Heritage hosted the Fifth Annual International Arts and Culture Symposium in the Helen DeVitt Jones auditorium. The Symposium brought together scholars from South Korea, TTU, and the Lubbock community to deepen the understanding of the cultural heritage of both Asia and America.

Maestro David Cho, Director of the Lubbock Symphony Orchestra, discussed wedding music and then gave an onstage piano demonstration. Prof. Rachel Anderson of TTU compared the wedding costumes of different eras and cultures, and Dr. Joseph Hodes, also of TTU, explained Indian marriage customs and then demonstrated their significance. Dr. Mark Charney, Director of the TTU School of Theater and Dance, then moderated a panel discussion involving the speakers and the audience. To close out the day, Dr. Myungwon Yoon from South Korea lead an authentic Korean Traditional Wedding Ceremony.

Keep your eyes open next Spring for the Sixth Annual International Arts and Cultural Symposium.

**Dino Day, 2017**

Once again, on May 6 2017, Dino Day was a “roaring success”!

We had almost 2,000 visitors of all ages who attended the museum to visit with our paleontologists, and to handle real dinosaur fossils. For more fun, participants get to enjoy games, crafts, and refreshments, all to provide more learning about the creatures that are beloved around the world.

The event is presented each year to celebrate the Museum’s collection and exhibition of fossil and skeletal remains of the giant creatures who lived in our west Texas area so long ago. And, we are able to share with visitors just how distinguished our paleontological staff are as well as how notable their research efforts are.

If you missed it in 2017, please join us next year, as Dino Day will never be extinct....!

**Bruce Munro at TTU**

On the evening of June 4, UK artist Bruce Munro spoke to an audience in the Museum’s Helen DeVitt Jones auditorium about his career and art. His art explores the many dimensions of light and has spanned the globe, and includes an enormous installation at Uluru in the heart of Australia. Following his talk, he was joined by a panel of Texas Tech artists and scientists to discuss the common threads of creativity that underpin art and science. The discussion was co-sponsored by the newly established Creative Process Commons of Texas Tech University.

Munro’s artwork, Ferryman’s Crossing, was on display at the Museum until June 2017. His work, Viva Tree, is the public art centerpiece of the new Texas Tech Systems Building.
Museum Science is now Heritage and Museum Sciences

Founded in 1974, Museum Science has had a growing and strong presence in the profession. Science was purposefully selected rather than studies (most programs are called museum studies) to emphasize a rigorous and objective approach couched in a robust curriculum. The program is noted for being housed and immersed in a functioning, accredited museum, hands-on experiential learning, and the paid internship option. Interns are expected to be integrated staff members and not observational volunteers. Our students are highly competitive in the workforce and both interns and graduates have found placements across the country and internationally. By the 2010s, the separate Graduate Heritage Management Program had been folded into Museum Science as a track rather than a separate degree program. Results of program assessment and strategic planning by the Museum Science Faculty raised the concern of the loss of identity of the Heritage program. Results have been a revamping of the program, streamlining the curriculum, and making the program more flexible for students. A name change became integral to the rebranding process and repositioning of the program. Heritage and Museum Sciences is the program’s new name and it became official during the summer. Students entering the program this fall are the first class who will graduate with a MA in Heritage and Museum Sciences. The name blends the old name and two programs into one integrated program that raises awareness of the Heritage aspect while still emphasizing a rigorous approach. The name presents a different, refreshed face while opening up new possibilities and opportunities. One of those possibilities is continued, incremental growth as the opportunity for gaining new tenure-track faculty members. In the early days, as with most new programs, some courses did not have the requisite minimum 5 students. Today, some of those very same courses now have up to 25 students enrolled. With total fall enrollment at 46, the strategic objective of 50 students by 2020 appears to be in reach. Heritage and Museum Sciences is going strong and growing!

Museum Hosts Dinner for the Texas Tech Foundation Board of Directors

The Texas Tech Foundation Board of Directors dined at the Museum on August 24 this year. The event was organized by Texas Tech Institutional Advancement. The Foundation board of directors oversees the foundation and its investments on behalf of the Texas Tech University system. The dinner was held in the Museum’s main gallery, with tables set under the looming figures of the T. rex and Triceratops, two of the Museum’s iconic collection objects. Guests could browse the newly opened Texas Liberator exhibit as well as a newly acquired collection of 19th and early 20th century shoes, the Wallace Collection.

Fourth Art on the Llano Estacado

The 4th Art on the Llano Estacado was held by the Museum of Texas Tech Association on the evening of April 29 this year. Guests enjoyed cocktails, musical entertainment, and a splendid meal, and could browse and purchase the art of 43 guest artists in the Museum’s Helen DeVitt Jones Sculpture Court. This year, the Legacy Award winning artist was Rosie Sandifer.

Art on the Llano Estacado is the major fund raising event held by the Association each year. The Museum Association thanks all the artists and supporters of the event but especially Evelyn M. Davies as Gold Sponsor and City Bank as Silver Sponsor.
What if the Museum of Texas Tech University threw a party and all of Lubbock came? Sound crazy? Sound frivolous and irreverent? It is neither. Hear me out.

The setting: It’s 5:45 p.m. on the Third Thursday of the month. Out of curiosity, you drive by the Museum of Texas Tech to see what’s up. To your surprise, you see cars streaming in. There is a food truck parked in the lot. You see the foyer festively illuminated in the distance. You take a chance and turn in...

Once inside you see the familiar dinosaurs, but the mood is somehow different. Not contemplative or solemn, but rather joyful and full of anticipation! There is music playing by an ensemble of Texas Tech’s students or community players. Is that group laughing while drinking a glass of wine? Yes. Yes, they are.

The “party” is actually Museum by Night: Illuminating Ideas. For the “Third Thursday” of the month, we at the museum created a collection of multidisciplinary experiences on a novel and intriguing theme related to things we value in our everyday lives. Visitors will have the opportunity to enjoy an adult beverage while they listen to theme-related music before the program starts. Then, in a series of short performances, the theme will be addressed by artists, scientists, historians, theologians, and poets to name a few, all of whom will invite direct engagement and exchange with the visitor for an interactional experience. Additionally, artifacts from the museum’s vast and varied collections will be displayed and integrated.

Most importantly, each evening has been co-created by members of the community in order to authentically represent the artistic and intellectual capital of Lubbock; Business owners, young artisans with day jobs, musical hobbyists ... In this way, we ensure that we will always have a fresh and relevant perspective! There will be no “sage on the stage” lecture instructing the visitor how to think about the topic. Rather, the
The visitor will find inspiration as to how many ways the topic could be thought about.

Our first evening, The Art and Science of Wine and Pleasure, featured wine tasting from local wineries, French bal folk music and dancing, words from a community vintner, a local neuroscientist, an enologist, and an historian. The second evening, Storytelling in the Age of Jazz, visited the legacy of Lubbock’s very own Eric Strong, jazz and art advocate, and noted storyteller. Strong’s narrative was backed by a jazz historian, a community vocalist, a pianist, and specially selected clothing from the collections from the boisterous and edgy jazz era. Third, The Wonder of Women tackled the topics of girls’ growth, women’s empowerment, and the evolution of female heroism in comics and film. With an especially strong community representation, we featured local cosplayers who talked about their art and craft, local visual artists who light up our local Lubbock-Con and first Friday art trail, and collectors who showed their comic book treasures and explained their cultural importance.

Think “date night” for young and old, centered on true scholarship and human invention. We know of no other program like it.

As fun and lighthearted as this event seems, its goal is quite on point. Allow me to digress for a moment to put museum life in brief perspective to highlight the challenges of the new century.

In the 1860s, my great, great grandfather owned and curated a museum of sorts at his home. The main draw was his telescope, then the largest in the world whose journey to the University of Virginia was disrupted by the civil war. It is doubtful that looking through this grand instrument was open to the public, but rather, only to a privileged, elite circle capable of conversing reverently in their own secret scientific language.

Thankfully, museums have come a long way since then! Their purpose is not only cultural curation (of sometimes spectacular items), but also public education. This latter mission is of ever increasing importance. Said about the 21st century museum, “The new museum won’t be defined by architectural glamour or by a market-vetted collection... it will be defined by its own role as a shaper of values, and by the broad audience it attracts.” (Cotteroct, 2015).

At present, however, museums across the nation are enjoying only a modest success connecting with their local communities. Data have shown that museum visitors tend to be better-off and white. Indeed, only 9% of museum visitors represent non-white populations, even though these populations comprise upwards 34% of those communities (Farrell & Medvedeva, 2010). As my anecdote about the telescope suggests, this trend has long historical roots. Indeed, there are several barriers to overcome. For example, many museums feel intimidating and exclusionary to many people, not the least of which is the perception of the representation of “high culture” rather than the “lesser” popular culture of our everyday lives. Thus, museums often give the impression of being apart from the community, rather than a part of the community.

Then there is the matter of age and generational differences. The traditional contemplative visit to the museum may seem foreign (and perhaps uninteresting) to younger adult audiences who are more accustomed to interactive educational experiences. How can we connect with their everyday lives and create a space where they want to hang out and even talk to each other and -gasp- to older adults? Can we respect the long standing mission of education of the museum and yet allow this educational effort to be made more memorable, more thoroughly and authentically experiential, or, dare I say, even playful, all while respecting the seriousness of the content?

What if we threw an open party to celebrate an important and captivating idea?

With Museum by Night: Illuminating Ideas we hope to create an alluring event for museum fans and museum skeptics alike. We heartily invite our Lubbock neighbors to co-create a meaningful and immersive experience that will leave us all with a sense of awe. In the end, we hope to create an unabashedly pleasant and welcoming space in order to demystify the museum, all in an effort to humanize the arts, sciences and humanities, and to demonstrate unequivocally the relevance of the Museum to our beloved city, its institutions, and inhabitants.

Come as you are, bring a date or find one, and illuminate the night with us!

“With Museum by Night: Illuminating Ideas we hope to create an alluring event for museum fans and museum skeptics alike.”
Genetic Resources Collection

This spring, two important partnerships were developed that will serve to enhance research capabilities at the Natural Science Research Laboratory. First, Dr. Caleb Phillips (Curator of the Genetic Resources Collection, GRC) and Dr. Randall Wolcott (Director of the Southwest Regional Wound Care Center) developed a plan for archiving research samples resulting from their collaborative efforts to study how microbiomes interact with human wounds and influence healing. Initially, plans are to archive approximately 90,000 samples in liquid nitrogen freezers housed in the GRC facility. Dr. Wolcott provided $100,000 to help purchase an additional freezer, defray archival costs, and help defray personnel costs associated with computerizing and caring for this valuable collection.

Second, Dr. Warren Conway (Bricker Professor of Natural Resources Management) and Drs. Robert D. Bradley and Caleb Phillips at the NSRL partnered with the Wild Sheep Foundation and the Texas Bighorn Society to have the NSRL serve as the official repository for research samples associated with studies of North American bighorn sheep. Traditionally, research samples have been maintained by individual investigators with little coordination for sharing samples or ensuring long-term care of samples. This collaborative effort will bring essentially all bighorn sheep research samples to the NSRL where they will be housed in the GRC and maintained following the best practices available for natural history collections. Samples will be inventoried and computerized, and made available to qualified researchers upon request.

In addition to developing an archival initiative, the NSRL, Natural Resources Management, and Biological Sciences will be involved in conducting research on these samples to investigate the potential for transfer of respiratory viruses among wild sheep populations. The Wild Sheep Foundation provided $50,000 to help purchase an additional freezer, defray archival costs, and for research support associated with this collection. The Texas Bighorn Society provided $160,000 (over four years) to provide a research stipend for a PhD student to lead the research efforts.

The NSRL is excited about these expanded research opportunities. Both of these projects are the result of recent renovations to the Genetic Resources Collection of the NSRL and installation of a liquid nitrogen storage system. Those improvements were made possible by NSF grant funding and support from Texas Tech University.

NSRL Mammal Collection Receives Renewed Accreditation

In April, the Systematic Collections Committee of the American Society of Mammalogists (ASM) reviewed the mammal collection of the Natural Science Research Laboratory as part of the Society’s accreditation process. The NSRL is pleased to report that the mammal collection has been re-accredited by this prestigious society. The mammal collection of the NSRL was originally accredited by ASM in 1975, and has maintained that accreditation throughout the decades. The accreditation process ensures that the NSRL is following the standards and policies set forth by the ASM.

The NSRL’s mammal collection currently contains more than 135,000 cataloged specimens of more than 1,400 unique species. Specimen preparation types include preserved skins, skeletal materials, alcohol-preserved specimens, taxidermy mounts, and associated tissue samples for most specimens. These archived specimens, and associated tissues and data, are used by researchers throughout the U.S. and internationally for studies of the world’s mammalian biodiversity and the impacts of natural evolutionary processes, geographic isolation, diseases and parasites, habitat loss, climate change, pollution, and more.

The American Society of Mammalogists was established in 1919 for the purpose of promoting interest in the study of mammals. The Systematic Collections Committee of ASM was formed in 1972 as an outgrowth of an ad hoc committee formed at the request of the National Science Foundation. The Systematic Collections Committee serves ASM by handling all matters that come before the society related to systematic collections of mammals. The responsibilities of the committee include: advising curators worldwide in matters relating to collection administrations, curation, and accreditation; maintaining a directory of mammal collections and conducting a survey of existing collections approximately once each decade; maintaining a list of curatorial standards for mammal collections; and managing a collection-accreditation program under the auspices of the Society.

Receiving and maintaining accreditation from ASM is a significant accomplishment for a mammal collection. The NSRL is proud of its history of being recognized by ASM for upholding high standards of collections management and curatorial practices.
Lessons Large and Small

By Deborah Biness, Manager of Site Operations, Lubbock Lake Landmark

One of the most beneficial opportunities for graduate students in the Heritage and Museum Sciences Program is the chance to gain practical experience before beginning their professional careers. As a part of their course studies, students work on assignments tied to current projects at the Museum or practical exercises that teach them skills that they will use in an actual museum setting. The opportunities are as varied as the many areas of the Museum including exhibits, archives, museum administration, educational programs, or collections management, and they can range from the very small – to the very large.

One such project that has gained notoriety across generations of students is the “egg-drop experiment.” To practice safely packaging fragile objects for transport, students in the Preventive Conservation class pack a raw egg as a stand-in for a priceless museum artifact. To test their efficiency, students must toss the packaged egg back and forth on the Museum loading dock. When they open the packages, the outcome is obvious. The results are often hilarity, as well as lessons learned.

Each fall, Collections Management students learn practical lessons on a MUCH larger scale when they come to the Lubbock Lake Landmark to acquire skills in the care of outdoor collections. The Landmark is home to five bronze sculptures, totaling approximately 12,000 pounds, or 6 tons of bronze. For seven thousand years, artisans have used the strength and durability of bronze to make weapons of war and works of art. The bronze sculptures at the Landmark help visitors visualize animal species several thousand years older than the bronze-making process itself and are an important part of the Landmark’s interpretation.

The Giant Short-Faced Bear, Ancient Bison, Colombian Mammoth mother and calf, and the Giant Pamaphere that surround the Robert A. Nash Interpretive Center are extinct animals that lived on the Southern High Plains 11-12,000 years ago, and whose remains have been discovered at the Landmark. Each sculpture is life-sized and based on those discoveries. They range in size from the three-foot high shell of the Pamaphere, sometimes called a Giant Armadillo, to the tip of the Mammoth’s truck 14 feet in the air.

All museum objects require proper care to extend their life and ensure that they are available for generations to research, see, and enjoy. For the bronze sculptures at the Landmark, this care includes an annual bath and a fresh coat of wax. Students, working with the staff at the Landmark, use gentle soap approved for use with museum collections to remove old wax, minerals deposited by rainwater (the irrigation sprinklers are carefully pointed away from the sculptures), dirt, the oils from human hands, and bird droppings.

By the time the students return for their second class at the Landmark, the sculptures have dried for 48 hours. Using their hands, students apply a thin coat of wax to every exposed surface of the sculptures. Working carefully with small wooden skewers, they take special care to remove any lumps of wax that collect in the small crevices of the bronze that could attract insects. The fresh wax helps to protect the surface of the bronze until it is time for the next year’s class of new students to become acquainted with animals from the Late Ice Age.
Extending Creative Visions:
The Art Division Collection

By Peter Briggs, Ph.D., Curator of Art

The Art Division has seen unparalleled collection growth in the last decade. From about 4,000 works collected since the 1940s to 2005, the collection has added another ten thousand works of art during the following decade. 2017 is on schedule to be the Division’s banner year, adding nearly 3,000 new works to the collection. While numbers are one measure of growth, the quality of the collection has been drawing international attention, most especially the Artist Printmaker/Photographer Research Collection.

Some examples... Following the Museum’s successful retrospective exhibition and book on artist Rick Dingus, the artist donated more than 750 works to the Art Division’s collection. Dingus also donated a number of extraordinary and unique notebooks and sketchbooks. In addition, Robin Germany, an artist also located in west Texas, gave to the collection 139 images she created since 1990. Her donation includes investigations into the expressive possibilities from her reflections on life on earth. Among these works are a series, With Closed Eyes, photographs made in the dark of night in which plants are lit with a racking light; On the Brink, pinhole camera images focusing on washed up materials and animals on the beaches of Texas; and another group of images, Surface Tension, that divide our point of view between above and below water.

Other highlights from the first half of 2017’s art collections reflect the development of a dynamic collection of 20th and 21st century art in the western United States. Among these are works of art on paper by Texas, New Mexico and Colorado artists Terry Allen, James T. Dormer, Trenton Doyle Hancock and Philana Oliphant.

Robin Germany. *Untitled (Snake)*, from the series, *Surface Tension* (2010), inkjet print, image 227x303 mm. Gift of the artist. ©Robin Germany

Robin Germany. *Untitled (Junction night)*, from the series, *With Closed Eyes* (2000), inkjet print, image 425x424 mm. Gift of the artist. ©Robin Germany
Beauty Abounds!

Marian Ann J. Montgomery, Ph.D.
Curator of Clothing and Textiles

Embroideries and shoes have long been a significant part of the Clothing and Textiles Collection at the Museum of Texas Tech University, but two recent donations have significantly expanded the Collection.

18th and early 19th century embroideries have been part of the Museum’s collection since the 1950s. The recent exhibit Through the Needle’s Eye, sponsored in part by the West Texas Embroiderer’s Guild brought a closer connection with the embroiderers in the area and in particular with Pat Grappe. Pat was a student in the first Museum Studies class of the Museum of Texas Tech University and is long time supporter of the Museum. She is a practicing embroiderer who has studied embroidery in Paris and the United Kingdom. The Grappe donation of 13 framed embroideries circa 1600-1880, one unframed sampler 1819 and six 18th and 19th century needlework tool boxes has expanded the Museum’s holdings of first class early needlework.

The Grappe donation gives the Museum the opportunity to show embroideries made more than 100 years earlier than previously. Words cannot do justice to these beautiful pieces so images follow:
Wallace Shoe Collection

The Museum has many wonderful 19th century garments, but not the shoes to show with them and items from Ms. Wallace’s collection now enable a much fuller interpretation of attire worn at the time. Many of the shoes in Ms. Wallace’s collection are of the high quality and style used by tastemakers and their families. Additionally many of the shoes are good examples of design that the students of the University should have access to for study and inspiration. The fit with the collection and the mission of the Museum of Texas Tech University is superb.

In addition to the wonderful 19th century shoes, Ms. Wallace had saved beautiful 20th century examples of shoes worn by her mother and aunts that enhance those already in the collection. These shoes have come to the Museum as a gift of L. Jean and Rebecca Wallace. A selection of the shoes will be on display August 25-January 18, 2018.

TTU-H2017-030-045 Circa 1930-40 flat beige shoes with black leather toes laced up at instep

TTU-H2017-030-070 Circa 1830s brown leather child’s shoes with orange ribbon trim.

TTU-H2017-030-077 Circa 1870-80 Black leather child’s shoes with three beige bar inserts and front red leather ties.

TTU-H2017-030-088 Circa 1880 light blue leather high top child’s shoes with four white buttons.
New Donation Highlights Southwest History

The two Navajo rugs and Akimel O’odham basket pictured above were donated to the Museum by Glen James in August of 2017. The Navajo Rugs originally belonged to her grandfather, Glen Hess, who traded with the Navajo for them at Two Grey Hills in the early 20th century. The basket was in use by the family throughout her mother’s life, and also is likely early 20th century. This donation encapsulates not only Native American history and the Southwest, but also Lubbock family history as they were passed down through generations in a single Lubbock family.

Glen Hess, a resident of Crosbyton and later Lubbock, was born in Missouri in 1883. Before serving in WWI, he lived in Crosbyton, Texas, and owned a construction company with his brother. It was during this time that he would travel for work and traded for rugs directly with the Navajo at Two Grey Hills, including the two featured here.

By Megan Reel, Assistant Collections Manager, Ethnology
Two Grey Hills trading post is located in northwestern New Mexico on the Navajo reservation. It opened in 1897, and is still in operation today. The rugs produced there are typified by the use of natural carded wool, usually in shades of browns, greys, black, and white. Individual weavings can take a year or more to produce, with a substantial amount of that time spent by the weaver spinning and processing the wool by hand before weaving can begin.

The basket was acquired by Glen James’s family sometime in the earlier 20th century. It is woven from willow, with darker decorative elements woven from devil’s claw. The technique used to weave the basket indicates it was made by the Akimel O’odham (Pima) of Arizona.

After living in Crosbyton, Texas, and then El Reno, Oklahoma, Hess moved with his family to Lubbock in 1923. By this time, he was married with two young daughters. Hess would have three children, and the family stayed in the same house in Lubbock until his death in 1957.

The rugs and basket were used by Glen Hess’s family over several decades, and eventually passed down to his granddaughter. This new donation adds to a significant collection of Navajo weaving and Southwest basketry that is part of the Museum’s Anthropology Division. It provides additional depth to the collection as well as a local connection to Lubbock.
My first encounter with Dr. and Mrs. Arnold was late in 2004. I had just accepted the position of Curator at the Museum. During the hiring process, the Arnold's art collection had been described to me in superlative terms. Upon my first visit to their home in that same year, I observed first-hand that the praise about the brilliance and foresight of these art collectors may have been understated.

The Arnolds were, in every sense of the word, collectors. Over more than four decades, they scoured the cultural or artistic landscape for stimulating and meaningful works of art in any medium. They did not collect to decorate their home but to enhance, expand, and improve the aesthetic and historic scope of their collection. Wall space and floor space never seemed to be an impediment to add a new work of art. Indeed, the design of their home catered to their art collection, not the other way around. Their art collection was a significant part of who they were.

American studio glass and ceramics collections are the jewels of their efforts. Of particular note, these collections feature American artists from the 1960s through the end of the 20th century, a pinnacle period of American ceramics and glass creativity. Ceramic artists of the caliber of Richard Devore, Rudy Autio, Betty Woodman, Robert Turner, Rick Dillingham, Karen Karnes, and Akio Takamori, and renowned glass artists such as Fritz Dreisbach, Ginny Ruffner, Harvey Littleton, and Charles Miner, among many others are represented in these collections. In total, the glass and ceramics account for more than 260 art works.

But my enthusiasm for the ceramics and glass cannot diminish the importance of other parts of the Arnold's collection. The paintings and works on paper, with a particular emphasis on Native American artists, contain exceptional work by Emmi Whitehorse, Jaune Quick-to-See Smith, David Bradley, Rick Bartow, and other important artists. In tandem, the Arnolds collected Southwest Native American ceramics and baskets, representing a wide range of Pueblo, Hopi, Navajo, and Apache artists among others. And their international basket collection holds work by

“The Dr. Robert and Louise Arnold Art Collection will be a unique resource for Museum visitors and students," observes Gary Morgan, Executive Director of the Museum. “The collection particularly expands the Museum’s holdings in art glass and ceramics, and these will be the basis for some wonderful future exhibits, as well as study materials for students in art courses and museum studies here at Texas Tech.”
stellar artists quite literally from across the globe, including Linda Bills, Priscilla Henderson, Neil Prince, and Dominick Di Mare. Exacting and focused selections of sculpture in wood, metal, stone and other materials round out their collection.

The Arnold Collection is so diverse in its scope, that I have undoubtedly overlooked some of its facets. This collection was developed as a long-lived partnership between Dr. and Mrs. Arnold. When I spoke with them about the art works they had acquired, each had exceptional stories and insights and shared a mutual, loving and dedicated enthusiasm for their collaboration.

The collection blurs the boundaries between so-called “crafts” and so-called “fine arts”. In this sense, and considering the scope and quality of the collection, I think it is reasonable to observe that it is the most progressive, diverse, and among the most serious collections of post-World War II works of art in west Texas.
BRINGING THE SPECIAL NEEDS COMMUNITY TO THE MUSEUM

By: Bethany Cheshire, Education Intern
As the Education Intern, I was given the task of reaching out to Lubbock's Special Needs Community. It was my responsibility to find ways to welcome the Special Needs Community into the Museum of Texas Tech University. During the Spring of 2016, I was given the opportunity to work on a practicum, or practical course study, with the Education Division at the Museum. I have a brother with autism, and wanted to create a program that would not only give him an opportunity to enjoy the Museum but would also help him to grow as a person. Individuals on the Autism Spectrum have a difficult time recognizing facial expression and body language in other people, thereby making it difficult for them to communicate. I used my practicum to develop a program that would help my brother build skills for the recognition of emotion using the artwork at the Museum. I wanted to see if the subjects in the paintings and sculptures could be used as a tool to help my brother strengthen his ability to relate different emotions to certain facial expressions and body language. Through my practicum, I discovered that, for my brother, it did help him with emotional recognition not only in other people but also in himself. The program that was developed aided his understanding of what he was feeling and how to use art to express those feelings. This helped my brother to better communicate his emotions and to recognize them in other people.

The Education Division and I decided to expand on my practicum and create a program for others in our community on the Autism Spectrum. Not only would this give us a better idea of the success of the program layout but it also gave us the opportunity to connect with the autism community here in Lubbock. As a division, we created a new program called “Art with Emotion.” The Education Division partnered with the Burkhart Center for Autism Education and Research to allow their students an opportunity to learn how to better recognize emotions in themselves and in other people. The program would allow them to grow their ability to recognize emotions that they might otherwise have a difficult time identifying. This development would better the students’ understanding of how their own body language and facial expression appear to other people and what others are trying to communicate to them through their body language.

“Art with Emotion” applied a process similar to the one I used for my brother during my practicum. I hypothesized that using works of art at the Museum would help to strengthen the Burkhart students’ ability to recognize body language and facial expressions like it did for my brother. The program involved the students of the Burkhart Center visiting the Museum once a week for a period of six weeks. Each week was focused on a different emotion. The students discussed what they thought relating facial expressions and body language for each emotion would look like, then the group would discuss how the subjects (in different works of art at the Museum of Texas Tech
University) portrayed these emotions. Finally, we went to the Museum’s crafting room and created different art projects relating to the emotions that were discussed that week. One week, the Burkhart students made mosaics out of paper and glue to help the students identify what made them sad, and then discussed methods that they could use to overcome their sadness. Another week, I had them pick different emotions and exaggerate them in a mirror. They were instructed to sketch self-portraits of themselves making these facial expressions. Each discussion and activity was used to help them in three different ways: how to recognize an emotion, which expression or body language related to that emotion, and to identify how they reacted to each emotion we had discussed.

As an experimental program there is still a lot of growing to do. We will be implementing a new measuring method to see what is working and what needs to be altered with the next group coming in the fall. We hope to connect with researchers on campus who might have an interest in working with us in support of this program. Also, we want to make sure that the students are enjoying their time at the Museum. We are creating surveys for the students, their guardians, and the instructors at the Burkhart Center to complete in order to address these factors/concerns/etc. “Art with Emotion” is currently a private program but we are working on expanding the program to make it available for the entire Special Needs Community in Lubbock.

In addition to “Art with Emotion,” I am working to implement and expand an Alzheimer’s and dementia outreach program here at the Museum of Texas Tech University called “Memory Makers.” We have started working with Raider Ranch, an assisted living and memory care facility located in Lubbock. Talking with the activities directors for both divisions of Raider Ranch, we decided to have some of their residents visit the museum three times this year to see how they enjoyed the program. I gave the group a small tour of the galleries and The Museum provided stools for sitting and we discussed different works of art in each gallery. The group talked about everything from the history of the artist to the group’s opinion of the artwork. After the tour, we headed back to the Museum’s crafting room where I had a different craft for them each visit. Between their visits to the museum, the Education Division did an outreach visit. We brought different art projects and activities to the Raider Ranch. The residents at Raider Ranch loved to visit with us and tell us things that connected to their life stories. While this program was tailored to Raider Ranch, I am hoping to get involved with other memory care groups in Lubbock to create similar outreach programs with them.

These two programs are just the beginning of what we are hoping to do here in the Education Division of the Museum of Texas Tech University. For any questions, comments, or ideas that you may have about “Art with Emotion,” “Memory Makers,” or any other programs presented by the Education Division of the Museum of Texas Tech University, feel free to contact me at bethany.cheshire@ttu.edu or (806) 834-2844.
Abstract Art Meets Atmospheric Science

By: SALLY LOGUE POST

Professors of art and atmospheric science collaborate on a new project that illustrates the science of lightning

Lightning is beautiful, deadly and not well understood. Lightning is part of every thunderstorm, but meteorologists don’t know where it forms in a cloud or how it acts once it has formed. Eric Bruning, Texas Tech associate professor of atmospheric science, has been chasing storms and answers to those questions for several years.

Bruning joined Texas Tech’s Atmospheric Science Group in the Department of Geosciences in 2010. He believes that understanding how lightning works could help scientists predict where and when a massive thunderstorm could turn dangerous – a prediction that could save lives on the ground.

In 2014 he received a prestigious CAREER Award from the National Science Foundation (NSF). But his grant application wasn’t all science, he turned to an artist to help him make his work more interesting and understandable to the lay person. The end result of the collaboration will be an exhibition at the Museum of Texas Tech University.

“An important part of the grant, from NSF’s point of view, is how you will do active outreach and education, and I was interested in doing something a little bit outside the box,” he said. “I’ve always enjoyed data visualization and looking at our data in graphical form. So I figured it would be interesting to work with someone who has a lot of experience working visually.”

That desire to look at his science through a different lens led him to Tina Fuentes, professor of art at Texas Tech and nationally known artist.

Fuentes was director of the School of Art when Bruning first contacted her about finding an artist interested in working with him. When her first message to her colleagues went unanswered, she invited the scientist to her office to see if she could determine how best to help him.

“When Eric came into my office he started talking about lightning and he used words like color, line and texture,” Fuentes said. “I thought to myself ‘wait, you are describing art, you’re using my vocabulary.’”

His use of vocabulary wasn’t a coincidence. He suspected that Fuentes would respond to the word texture, a word used by artists more than scientists, and he was right.
“I think my charts and graphs and videos are pretty interesting, at least to me and other scientists,” Bruning said. “But Tina’s art demonstrates what lightning looks like when it fills a cloud in a very different way than my charts. She has stripped away the normal scientific trappings and captured the essence of the storm, and I think that’s a very effective way to convey to the public what I as a scientist might not be able to get across in my ordinary scientific communication style.”

Fuentes also sat in on Brunings’ students’ presentation and went storm chasing with them.

“I have looked at the heavens more than I ever have before,” she said. “I bet I’ve taken more than 1,000 photos of cloud formations.”

While her two-dimensional art is stunning, Fuentes wasn’t quite satisfied.

“I was thinking: how can I best recreate the combustion I saw in the clouds? How can I make that visual? I really wanted people to see the stroke, not me making the stroke.”

Inspiration hit one day when Fuentes was watching the weather on TV. She realized the green-wall technology used to project the image behind the meteorologist could work for her.

“I made a makeshift green wall in my studio and I wore a green suit,” she said. “We were able to pull me out of the video and all you see are my paint strokes. Now that I had this idea, I didn’t want to project the video on a flat wall. I had a small bundle of cotton in my office and one day I thought, that’s it, I can use the cotton as a background for my video.”

She visited Texas Tech’s Fiber and Biopolymer Research Institute of the Department of Plant and Soil Science and asked them if they could give her some bags of cotton to build eight 5- by-4 foot panels.

“The cotton panels look gorgeous,” Fuentes said. “The color of the cotton was a bit different from bag to bag.”
The Science

Bruning is one of the few meteorologists who are studying lightning. Most scientists in that field are from a physics or electrical engineering background. Bruning is trying to describe how lightning fills a cloud.

“Everyone has seen lightning coming from the bottom of the cloud, but there is probably 10 times more lightning inside the cloud that you don’t see,” he said. “I’m looking at how the turbulence in the cloud ends up making very small flashes when it’s really turbulent and very large flashes when it’s smoother inside the cloud.”

Turbulence is one of the most challenging scientific questions that remain unsolved, he said. Using lightning measures, which as of late have become much easier to obtain, Bruning believes that if he can relate how lightning behaves in a cloud to the turbulence in the storm, there is a possibility of addressing some of those long-standing questions.

“The more turbulent the storm, the smaller the lightning flashes because they are being stirred around more, like in a cup of coffee when you add creamer,” he said. “You can see a texture to that, and the lighting channels follow that structure.”

The result of Bruning’s work could combine with the radar images scientists use now to predict severe storms and improve public safety warnings.

The National Oceanic and Atmospheric Administration (NOAA) has recently launched a new weather satellite that for the first time has a lightning mapping instrument. Before coming to Texas Tech, Bruning worked with NOAA’s satellite program.

“The new satellite allows meteorologists to see lightning flashes day or night,” he said. “If there are a numerous thunderstorms in an area, the question becomes how to tell which one is the most dangerous. If we can better understand how the turbulence of the storm is affecting lightning, then maybe we can use that to determine which storm is the one that could become most dangerous by looking at what is happening with the lightning.”

A Bright Future

After a couple of years working together, the scientist is convinced that the artist is capturing what he is seeing in the clouds.

“There is a degree of realism in the texture Tina’s capturing and how her brush strokes fill the space,” he said. “Science is always trying to distill complicated things down to their essence and I think that Tina’s doing that as well. She’s distilling the clouds and the lightning into these sort of abstract forms that end up being very powerful because you have to focus on the essence of what’s happening instead of focusing on the realistic look of it.”

The art may not directly help Bruning answer scientific questions, but he hopes it will help lay people better understand the research.

“Tina has stripped away the normal scientific trappings and captured the essence,” he said.

In addition to an exhibition at the Museum of Texas Tech University later this year that will combine his science with Fuentes’ art, the two are setting up presentations to high schools in the South Plains area that will involve Bruning’s graduate students.

Fuentes says she hopes the exhibit and the presentations will reach students in a new way and inspire some to look more seriously at the research within the arts. For Bruning, the collaboration has proven to be a new recruiting tool for graduate students.

“I think young scholars respond to the idea of interdisciplinary work, and it gives them one more reason to look at Texas Tech for graduate school,” he said.

Both the artist and the scientist hope their collaboration spawns new partnerships.

Marcando el relámpago runs from September 30 through January 28, 2017

“NSF loved the idea,” Bruning said. “I think the program managers were excited, but also maybe a little bit nervous because this was a bit outside what they typically fund. Lightning is pretty and that’s what’s great about working with an artist, she can convey the beauty and help me communicate the science at the same time.”
They prepared for death and destruction, but nothing could have prepared them for the horrors they witnessed.

In April 1945, American soldiers witnessed unspeakable atrocities – adults who scarcely weighed 70 pounds, piles of dead bodies and technologies designed for mass murder - as they liberated prisoners from the Nazi concentration camps.

“The soldiers who liberated these camps were ordinary men,” said Aliza Wong, associate professor of history and associate dean of the Texas Tech Honors College. “Many of these men came from rural areas. They had never traveled; some had never even been to a big city.”

Decades later, an interdisciplinary team of Texas Tech researchers is sharing the stories of a group of these soldiers who came from Texas, known as the Texas Liberators, with a new generation.

“We know the veterans of World War II are aging, and there are fewer and fewer left with us,” Wong said. “We want to record their story because so many of them came home and weren’t able to speak about this experience - partly because they were so traumatized and partly because they wanted to protect their families.”

**Heroes of the Holocaust**

*By: Nicole Lundberg*

Bringing the stories of the men who liberated concentration camps to life for a new generation.

However, inspired by her students and her high-school-age son, Wong suggested the commission create an interactive app instead.

“Using gaming as a portal to further an educational experience is a new concept in the classroom,” Wong said. “If you ask a classroom of high school students how many have played ‘Call of Duty,’ most hands will go up. That is a mode of entry, a mode of engagement that a lot of students are comfortable with and excited about.”

Wong and a team with representatives from five different departments are creating an app to guide students through Dachau, a German concentration camp that held approximately 33,000 prisoners, through the eyes of a Texas Liberator.

**Entering the Camp**

Shakil Shimul, a graduate student in the College of Architecture, has carefully considered every detail of the buildings at Dachau. Using historic images of the camp, current pictures from Google Earth and blueprints, Shimul worked with Jiawei Gong, an assistant professor in the School of Art, to create accurately scaled 3D renderings of the camp.

As they created the 3D environment, the researchers were careful to depict the camp as it appeared in 1945 when the Texas Liberators arrived.

“A lot of the buildings have been restored, so we had to get back to what they looked like in 1945,” Shimul said. “One of the biggest challenges was using the limited information we had to make the rendering accurate.”

Their commitment to accurate detail went all the way to the textures on the buildings. Team members used multiple software programs to apply the colorings and textures from actual photos of the camp to the buildings in the app.

Students will visit key buildings as they play the role of a
Texas Liberator and complete missions, which will require them to move throughout the camp. To complete these missions, they will visit important structures, including the entry gate and the barracks, and view artifacts that the liberators encountered, Wong said.

Students will also interact with the prisoners and the American soldiers in the camp, she said. When students ask a soldier a question, they will watch a video clip of a Texas Liberator describing what he experienced when he arrived at the camp.

These oral histories come from 19 interviews filmed by Baylor University in 2012 through a project that was also funded by the THGC. Chad Campbell, an undergraduate Honors College student and history major who worked on the project with Wong, said the videos bring the soldiers’ stories to life.

“Watching the testimonies, you can see them staring off into the distance and breaking down emotionally as the memories start to come back to them,” Campbell said. “They always go back to the smell of the camps and seeing these people whose bodies were completely falling apart.”

The app offers an engaging, emotional learning experience and adheres to principles of good historical research, Wong said. In addition to paying meticulous attention to detail to accurately depict the camps and using primary sources, she wanted students to understand the Holocaust in its historical context.

“The moment when we enter the camps, the war has already been going on for five years and fascism has existed for decades, so students need that context,” Wong said. “As a history teacher, you have to unpack the mythology about the war before you can teach it accurately.”

To provide students with context for the stories and histories they will encounter in the interactive experience, Wong solicited the help of Robert Peaslee, an associate professor and the chair of the Department of Journalism & Electronic Media. Peaslee and Ian Love, a master’s student in the College of Media & Communication, created a five-minute video that students will watch when they launch the app.

**Beyond the App**

Through the app, the Texas Liberators’ stories will reach high school students across the United States and Canada. All Texas high schools, public and private, will receive access to the app in the fall of 2017. Parents who homeschool their children will also have access to the app, Wong said.

A website with resources for teachers and students will accompany the app. In addition, every Texas high school will receive a display book containing stories of the Texas Liberators.
along with a listing of known Texas Veteran Liberators, courtesy of the Friends of the Texas Holocaust and Genocide Commission.

The Museum at Texas Tech will also play a role in sharing the Texas Liberators’ stories through an exhibit, which opened in the fall of 2017, Texas Liberator: Witness to the Holocaust.

Ultimately, the team members hope that these educational tools will enable students to have an emotional connection to the historical event of the Holocaust.

“It is our hope that the immersive experience will inspire empathy,” Peaslee said. “If you can have sense of what it would have been like to arrive in one of these camps, it might make it easier to empathize with the people rather than seeing them as a number on a page.”

Berkowitz said he hopes this emotional connection with history will inspire students to fight injustice in contemporary society.

“Teaching the Holocaust is important because genocide is still happening,” Berkowitz said. “As human beings, we have a responsibility to stop it. We must chose right over wrong.”

*Texas Liberator: Witness to the Holocaust* is on display August 17 through December 3, 2017.

The Spring-Summer 2017 issue of *M* incorrectly stated Robert Anderson was born in 1905. The correct year of Mr. Anderson’s birth is 1924. The editorial staff regrets the error.
INTRODUCTION

The heat wave of 1980, a blistering 40-day run of 100 degree days – the longest heat wave in the region’s history – still burned into memories. There were 60 deaths statewide. In that grim summer, three of us were searching for dinosaur fossils in the Late Triassic Dockum sediments near the small town of Post. I was accompanied by my wife Sibani and a graduate student David Proctor. The Dockum redbeds along the escarpment of the Caprock are of stupendous beauty, one of the scenic highlights of West Texas. They rise – a rainbow spectacle of red, white, yellow, lavender, and blue – above the badlands, ablaze with dramatic light and color. The Dockum redbeds run north-to-south in an elongated exposure through the center of the Texas Panhandle, from the Canadian River to the Pecos River. They dazzle in the red cliffs of Caprock Canyons and Palo Duro Canyon state parks, the latter is immortalized in a series of vibrant paintings by Georgia O’Keeffe. The Dockum Group extends northwesterly, mile after mile into New Mexico, and merges with the Chinle Formation of Arizona. “There is no water, no shade in this cowboy country,” David reminded us. The silts, muds, and sands of the bright red canyons and badlands shimmered in the Dockum landscape – the scorching sun creating a distant mirage. We parked our van on a dirt road and began our trek, eyes focused intently on the ground. Our back packs carried the tools we would need: hammer, camera, field note book, sample bag, glue, plaster bandages, our water bottles and lunch. We looked for the tell-tale fragments of ancient bones, taking careful steps to avoid rattlesnakes and carefully jumping over cactus.

This was my first summer at Texas Tech. Local ranchers at Post, Jack and Zoe Kirkpatrick, were our patron saints, supporting our first expedition. We had a modest field grant from the National Geographic Society to explore the Triassic fossil beds of West Texas. I knew that Triassic fossils were waiting to be found in the Dockum badlands because the University of Michigan had worked in the adjacent Crosby County before the war, and I had compared these fossils with similar fossils of India. Zoe Kirkpatrick introduced us to other local ranchers so we would have access to their lands for fossil prospecting. Although the Post area was poorly sampled, I felt at home in these badlands. It was déjà vu. In my formative years, I explored similar Triassic exposures in the Maleri Formation in central India, discovering many early dinosaurs and their relatives.

In the Triassic Period, all continents were united as the supercontinent Pangea, which allowed land animals to disperse widely and migrate back forth across the continents. No wonder that Triassic fossils look similar in Texas and India.

The Late Triassic Period ranged from 235 to 200 million years ago. It is one of the great evolutionary explosions in the history of land-life when several major groups of vertebrates such as frogs, turtles, crocodiles, pterosaurs, dinosaurs, birds, mammals and numerous extinct groups of lepidosaurs and archosaurs first appeared in the fossil record. The Triassic is often called the
“Dawn of the Age of Dinosaurs,” though dinosaurs were small and inconspicuous at that time, and certainly not yet dominant. When the dinosaurs first appeared, they did not rule the world. For millions of years they were but a small part of the reptilian fauna. These first dinosaurs were no larger than a German Shepard, with a long and stiff tail. They had to compete for survival with larger predatory reptiles, most notably the crocodile-like phytosaurs and fearsome rauisuchians. During the dry season, food became scarce for all the animals, including the dinosaurs. But early on, dinosaurs adapted, evolving characteristics like a high metabolic rate, and seasonal migratory habits; this gave them a competitive edge over the other predators. They developed three important features giving them greater running ability. First, their front limbs became smaller for bipedal pose, freeing them for other uses such as grasping, holding, and slashing their prey. Secondly, a perforated hip socket gave them an upright posture on their two hind legs. Thirdly, a hinged ankle joint, which lifted their heel from the ground, permitting them standing and running onto their toes. They most likely hunted in packs, allowing them to bring down much larger prey. At the end-Triassic mass extinction, most of the non-dinosaurs died out, but dinosaurs were unscathed; the extinction is linked to massive volcanism caused by the initial rifting of the Pangea. In this power vacuum, dinosaurs emerged as the winner by default, becoming the great, terrifying giants that ruled the Jurassic and the Cretaceous worlds.

The Triassic climate was warm. There was much less variation from the poles to the equator than exists today. At this time, neither Texas nor North America were where they are today. Texas was close to equator, and the Pacific shoreline was where Nevada is now located. An ancient river system, called the Chinle-Dockum river, was larger than the Mississippi, flowing westerly from the Ouachita Mountains, through West Texas to New Mexico, to Arizona, to western Nevada, finally emptying into the ocean. Along this river basin, lush green tropical forests of conifers, cycads, horsetails, ginkgoes, and ferns provided food and shelter for the Triassic animals. The Petrified Forest National Park of Arizona gives us a glimpse of this vanished Triassic forest. The sediments from the surrounding uplands were carried into the river basins across the entire Southwestern United States. As the sediments built up, they buried the carcasses and bones of the animals, and over millions of years preserved the fossils we today study and admire. One of the most remarkable features of the Triassic was that most continents were above sea level, allowing widespread deposition of iron-rich red sediments in the river valleys, floodplains, deltas, and lakes. Today these Triassic beds of iron red sediment are found globally, from the American Southwest, Argentina, Brazil, South Africa, East Africa, Morocco, Germany, Great Britain, Canada, India, and China.

**DISCOVERY OF A FOSSIL TROVE**

The first week of our summer fieldwork, the three of us hunted for fossils across the thousands of acres of Kirkpatrick ranchland with little success. We found only scraps of fossil bones, but nothing of significance. Our search ended at their property line and a locked gate over a cattle guard. The neighboring property belonged to Riley Miller, who had granted us permission to work on his land. He had given us the number to his combination lock, and we entered the Miller’s ranch with anticipation. My graduate student, Randy Baldwin joined our team that Friday and told me about a particular mound littered with fossil fragments. As a child born and raised in Post, he and Mr. Miller’s daughter had frolicked up and down the rolling hills; and one in particular had been their favorite. We arrived at the small mound, but initially found nothing extraordinary. We tentatively explored one of its gradual slopes, when suddenly, in the fading twilight, we saw the bones – they were literally everywhere. Halfway up the talus slope, hundreds of bone fragments were sliding down the soft embankment. It was an electrifying sight after such an uneventful day, a treasure trove of assorted bones from all kinds of ancient animals. We excitedly thanked Randy for leading us to his childhood site. Darkness was soon upon us and we decided to explore that hillock the next week with renewed enthusiasm.

The following Monday we returned to the Miller site and excitedly began probing with our brushes, trowels, hammers, chisels, screw drivers, and the ultra-fine dental picks. We removed the covering rock (called ‘overburden’) to expose the bone bed. Bone after bone came into view—skulls, leg bones, vertebrae, ribs—all jumbled together, but marvelously preserved. It was significant that this concentration of bones belonged to a variety of animals; they were partially articulated, indicating a catastrophic life and death flash flood 230 million years ago (Fig. 1). We found specimen after specimen as we extended the bone layer, each wonderfully preserved. As you begin uncovering fossils, you get an intoxicating jolt – an overwhelming euphoria as your brain secretes dopamine.

Fossilization on land is a rare event. Animals that die on land often do so in the course of being killed and eaten by other animals. Most of their bodies are digested. The leftovers uneaten by the killer are picked over by opportunistic scavengers, and further consumed by bone-crushing carnivores. The broken fragments that remain are trampled and dispersed by other animals or carried away by rainwater, and eventually recycled by insects and bacteria, ultimately leaving no single trace. Occasionally, the body would be buried quickly by flash flood, volcanic ash, or sandstorm, and become fossilized. Here in this lonely spot on the Miller ranch, conditions were just right for the fossilization of all kinds...
of exotic, prehistoric animals. Here we made a discovery that would change all of our field plans for the next twenty years. It promised to fill a major gap in our scientific understanding of the origin of crocodiles, dinosaurs, birds, mammals, and their relatives. The Miller site is extraordinary because it contains a diverse group of Triassic creatures from a pivotal stage in vertebrate evolution.

We dubbed this fossil site “Post quarry.” It’s a rare window into Triassic life, looking out onto an ancient river valley, frozen in time. From time to time, the discovery of exceptionally preserved fossils, known as Lagerstätten in German, shed new light on the past diversity of life. The Post quarry, which is no larger than a quarter of a football field, has been recognized as one of the most remarkable records of Lagerstätten deposits of Late Triassic life on land.

Every summer our field work produced something new. Assisted by my graduate students, usually no more than four, and funded by the National Geographic Society, over the years we discovered a prolific array of new tetrapods. In a single dense layer we found two amphibians, *Apachesaurus* and *Rileymillerus*; early frogs and turtles; mammal relatives such as a new dicynodont and a cynodont, *Pachygenelus*; two bipedal rauisuchians, *Postosuchus* and *Shuvosaurus*; a phytosaur, *Leptosuchus*; several aetosaur genera, such as *Typothorax*, *Paratypothorax*, and *Desmatosuchus*; close dinosaur relatives including *Technosaurus* and *Dromomerion*; true dinosaurs and magazines. Its cast skeleton is on permanent exhibit in different natural history museums around the nation. In the field, we found nearly two complete skeletons of this strange animal. It took me five years to thoroughly study *Postosuchus* and published it in the Royal Society’s scholarly monograph Philosophical Transactions. I named the new animal *Postosuchus kirkpatricki*. The generic name *Postosuchus* means ‘crocodile from Post,’ and the specific name honors the generous help and contribution of the Kirkpatrick family. Our skeleton of *Postosuchus* is large and robust with a deep skull and a long, stiff tail. Its neck and trunk are relatively short. The total body length is about 15 feet. Adults may reach four feet in height and weigh more than 600 pounds. The extremely short forelimbs (relative to the hindlimbs), the very small hands, and the posture of the spine suggest that *Postosuchus* was habitually bipedal, walking on hind legs (Fig. 2). It was fiercely territorial. It had keen vision and an acute sense of smell, which it used to stalk prey such as trilophosaurs, aetosaurs, and dicynodonts. The massive skull, deep snout, jaws bristling with three-inch long, dagger-like teeth, and large and heavy body all reinforced this reptile’s position at the top of the food chain. With serrated edges like steak knives, the teeth of *Postosuchus* looked like those of various meat-eating dinosaurs. Such teeth are designed for cutting and shearing large chunks of flesh. *Postosuchus* belonged to the huge-headed carnivores called rauisuchians. It was the lord of the Triassic, suggesting that its presence and that of its kin suppressed the emergence of dinosaurs as rulers of the land during that period.

**LIFESTYLE OF POSTOSUCHUS**

Of all new fossils discovered from the Post site, *Postosuchus* has proven to be the most celebrated, receiving worldwide recognition and star power. It appeared in the BBC documentary film Walking with Dinosaurs, and has been featured in numerous dinosaur books and magazines. Its cast skeleton is on permanent exhibit in different natural history museums around the nation. In the field, we found nearly two complete skeletons of this strange animal. It took me five years to thoroughly study *Postosuchus* and published it in the Royal Society’s scholarly monograph Philosophical Transactions. I named the new animal *Postosuchus kirkpatricki*. The generic name *Postosuchus* means ‘crocodile from Post,’ and the specific name honors the generous help and contribution of the Kirkpatrick family. Our skeleton of *Postosuchus* is large and robust with a deep skull and a long, stiff tail. Its neck and trunk are relatively short. The total body length is about 15 feet. Adults may reach four feet in height and weigh more than 600 pounds. The extremely short forelimbs (relative to the hindlimbs), the very small hands, and the posture of the spine suggest that *Postosuchus* was habitually bipedal, walking on hind legs (Fig. 2). It was fiercely territorial. It had keen vision and an acute sense of smell, which it used to stalk prey such as trilophosaurs, aetosaurs, and dicynodonts. The massive skull, deep snout, jaws bristling with three-inch long, dagger-like teeth, and large and heavy body all reinforced this reptile’s position at the top of the food chain. With serrated edges like steak knives, the teeth of *Postosuchus* looked like those of various meat-eating dinosaurs. Such teeth are designed for cutting and shearing large chunks of flesh. *Postosuchus* belonged to the huge-headed carnivores called rauisuchians. It was the lord of the Triassic, suggesting that its presence and that of its kin suppressed the emergence of dinosaurs as rulers of the land during that period.

**CONVERGENT EVOLUTION**

Although separated by 65 million years, *Postosuchus* was a scaled-down version of the Tyrannosaurus rex in body design. *Postosuchus* superficially resembles large, bipedal, meat-eating dinosaurs with powerful jaws equipped with sharp and serrated teeth like allosaurs and tyrannosaurs. But closer scrutiny reveals that the animal’s true identity lies in the crocodylian lineage. For example, the hip socket of *Postosuchus* is solid like that of crocodiles, not perforated like dinosaurs. But closer scrutiny reveals that the animal’s true identity lies in the crocodylian lineage. For example, the hip socket of *Postosuchus* is solid like that of crocodiles, not perforated like dinosaurs. Moreover, its peg-and-socket ankle joint caused it to walk flat-footed like crocodiles. In dinosaurs, the
ankle joint is a simple hinge that allowed them to stand on their toes like fleet-footed birds. These anatomical differences reflect their separate genealogy. Both crocodiles and dinosaurs belong to a group called archosaurs, the ruling reptiles of the Mesozoic. Archosaurs are divided into two major lines based on their ankle structure: the crocodile line shows peg-and-socket ankle joint, and the dinosaur-bird line exhibits a hinge joint. *Postosuchus*

Postosuchus belongs to the crocodilian line. It’s strange to believe that *Postosuchus*, an early relative of crocodiles, was entirely a land animal; moreover, it looked and walked like a theropod dinosaur. How can that be explained?

The similarities and differences between the skeletons of *Postosuchus* and *T. rex* are both obvious and profound. Both animals were bipedal, fierce predators of their time, with powerfully developed jaws equipped with sharp, serrated teeth that functioned as killing machines. Their arms were tiny, their necks became short and massive to support their enormous skulls, and they stood on their hind legs, keeping their tails erect. The hip is extremely vertical, the ilium is expanded, and the ventral elements are fused in both animals. *Postosuchus* moved like a dinosaur too, with the back legs tucked underneath the body in an erect posture. The parallels of body plans between *Postosuchus* and *T. rex* are striking. Yet, *Postosuchus* is clearly crocodilian in character, while *T. rex* is fundamentally dinosuarian. Convergence – where distantly related animals evolve to look very similar to each other – is a widely recognized phenomenon in evolutionary biology. A classic example of this is a bird wing and a bat wing. Both animals, one dinosaur the other mammal, use their wings for flight, but the inner details of those wings are different and evolved independently. Thus, the body plan of *Postosuchus* in the Late Triassic convergently evolved in the Late Jurassic *Allosaurus* and the Late Cretaceous *T. rex*. They were the apex predators of their time and adapted similar lifestyles. Such cases of extreme convergence, in multiple regions of the skeleton, in two distant archosaur lines are extremely rare.

**FUTURE PROSPECTS**

Since the discovery of the Post quarry, we have located several fossil-rich horizons in West Texas, most notably in Garza and Crosby counties. We are blessed with our own Triassic Park, right here in our own backyard – that hill on the Miller ranch where Randy and his friend played as children. Like them, we can run out almost any day of the week and do significant fieldwork. This is precisely what Bill Mueller, my assistant curator does. Bill is not only a weekend explorer and protégé, he also guides prestigious Clark scholars from the TTU campus, and graduate students from the University of Bonn, Germany, into our west Texas Triassic Park every year. I’m happy that Bill will continue our tradition of uncovering the Triassic treasures which we started long ago in the summer of 1980. Every year our collection is growing. The Museum’s Triassic collection has become prominent as one of the best in the nation for its quality, variety, diversity, and number of holotype specimens. Researchers from all over the world come to the Museum to study our specimens. Visitors can see some of the famous Triassic fossils in the Dinosaur Hall of the Museum of Texas Tech, and get a glimpse of the vanished world of prehistoric life.

“Thus, the body plan of *Postosuchus* in the Late Triassic convergently evolved in the Late Jurassic *Allosaurus* and the Late Cretaceous *T. rex*."

Figure 2. Top: skeleton of *Postosuchus kirkpatricki*, a permanent resident at the Museum of Texas Tech University. *Postosuchus* was about 15 feet long, 4 feet high, and weighing more than 600 pounds. It was the top predator in the Triassic ecosystem around 230 million years ago in the American Southwest. Bottom: life restoration of *Postosuchus* by Jeff Martz.
Museum Docent Profile:

Gretchen Scott

This month we caught up with a long-time docent of the Museum of Texas Tech University, Gretchen Scott. Gretchen is an indispensable part of several aspects of the Museum, whether it's as a docent or a member of our Association group.

1. How long have you been a docent at the Museum of TTU?
I was a docent for the Deadly Medicine exhibit from the National Holocaust museum. I don't remember how long ago that was, but several years ago. I gave quite a few tours for that heart-breaking exhibit.

2. What made you want to become a docent?
I love visiting museums and house museums. Going on a docent-led tour of any facility really enhances the museum experience. I wanted to provide this to the visitors to our museum. I love being able to share this museum with visitors.

3. What is your most memorable encounter while on a tour?
I lead a tour for students from the Marsha Sharp Academy for the Ansel Adams exhibit. I explained that Ansel Adams possibly had attention deficit disorder and was home schooled. Those students really related to that information.

I also love the reaction I get from school groups when I pass around the fossilized dinosaur poop! Those children just love that experience.

4. Why are museum docents so important for museums and their visitors?
I believe that docents really enhance a visitors experience at a museum. Docents can provide additional information about exhibits. They can answer questions or find answers to questions that visitors might have. Docents provide a friendly and welcoming presence to visitors. Museums benefit from having docent-led tours available because it increases the number of visitors to the museum. I know from personal experience that school groups really enjoy having docent-led tours either for special exhibits or just for the museum itself. Docents make the museum more user-friendly. At the end of my school tours I tell the students that they are now ambassadors for the museum and that they can bring their family and friends to the museum and show them what they have learned.

5. What does the Museum of TTU mean to you?
I love this museum. I have been volunteering here for over 20 years. I have been chair of the association resource committee for the past two years and I am a trustee. I think that museums are one of the most important facilities that a community can offer to its citizens. The fact that our museum does not charge admission is such a gift to Lubbock. There are so many wonderful permanent exhibits that I never get tired of viewing. This museum is a true gift to Lubbock and the surrounding communities.

6. Why should others become docents at the Museum of TTU?
The museum has a real need for additional docents. So many school groups request general museum tours. These groups are large and require 2 or more docents. It would be a shame to have to turn down a request for a tour. Being a docent is very rewarding. Interacting with visitors and sharing your love for the museum is rewarding. I always feel that I learn something from every tour I give. I get hugs and thanks from the kids and the teachers. Who wouldn't love that?

7. Any last thoughts about the docent program?
Every tour I have given has taught me something. Many times I am moved by the reaction I receive from visitors. This museum is a treasure and I love sharing it with people.

The Museum of Texas Tech University relies on the support of volunteers like Gretchen to serve our community. If you are interested in becoming a volunteer please contact museum education at museum.education@ttu.edu

Interviewed by
Tiffany Demmon, Program Coordinator
Staff Profile:
Emily Phillips
BBA ’00, MBA ’05—Texas Tech University

I developed a love of museums through travel, in particular traveling with my children. Large, small, quirky, or plain, I believe museums have so much to teach us about the world. I love how a museum can cause young, curious minds to question everything.

I worked at Texas Tech University for just under 10 years and spent time in International Programs in the Rawls College of Business as well as Institutional Advancement in the Colleges of Media and Communications and Arts and Sciences. I took a five year break from higher education to spend some time as an entrepreneur.

Host & Toast was the first boutique wine shop in Lubbock. Owning a small business was a great experience. Being known as the person who shows up with good wine helps to grow lots of friendships, but my entrepreneurial journey was not meant to last forever. I closed the business and returned to campus in 2016.

I was thrilled to accept the position of Development Officer for the National Ranching Heritage Center and the Museum of Texas Tech University. I knew nothing about museum administration, and the only thing I have ever curated is a wine list.

My current role is unique in that it is both inward and outward facing. I have great relationships within the university because of my many years on campus as well as a great network of friends from my time at Host & Toast. I feel that I am serving both my university and my community because the Museum makes the research and creative works of the campus accessible to the community.

I love fundraising because of the passion behind a donor's philanthropic investment. Philanthropy gives donors the ability to solve problems, fulfill needs, and create amazing spaces for the community. I am honored that I can facilitate projects about which donors are passionate, yet I feel the magnitude of the responsibility of matching donor's wishes with university goals and initiatives.
Donor Profile:
Dr. Idris R. Traylor

1. Have long have you been a member of the Museum Association? and 2. Why did you join the Association?
I joined the Association in 1967. That year I was appointed the first Deputy Director of the newly created International Center for Arid and Semi-Arid Land Studies (ICASALS), which was part of the new President Grover Murray’s plan to enhance all areas of Texas Tech and to internationalize the institution. Another element of the mission was to create an outstanding museum complex, not only to display art and other exhibits but be a major education and research facility, a museum of the first order. At that time there was planned a close relationship between ICASALS and the Museum and a major capital campaign was inaugurated, the ICASALS AND MUSEUM FUND, to raise funds to build the magnificent building that we now have on this campus. One of my tasks was to assist in the campaign. However, I have since boyhood been interested in museums and the excitement of what can be experienced and learned in them and have had the good fortune to have visited museums across the United States and all over the world. So, since before our building was even created, I was a volunteer in its creation and its ongoing development and a member of the Association and a trustee or officer and as president for this past half century, exactly fifty years ago this Fall. It has been a meaningful experience for me, and became simply a part of my life.

3. What was your favorite Association event?
This is a difficult question. There have been a great many outstanding exhibitions in this building, which were done with the cooperation of the Association. I think of the display of the magnificent frescoes from the Vatican, for example, or the outstanding works of colonial art from Mexico, of the Association’s Art on the Llano series and the display of the collection left to the Association by my friends, J.T. and Margaret Talkington. I myself enjoyed conceiving, arranging and curating three exhibitions, one on the lacquer boxes of Russia, another on Russian ikons from the Moody Collection in Galveston, but my favorite that I curated was co-sponsored by the Association and by ICASALS. It focused on how, in painting, the Taos artist Leon Gaspard interpreted arid and semi-arid lands, the exhibit featuring Gaspard's paintings of parts of China and Central Asia, North Africa, and the American Southwest. But perhaps, to me, the most interesting and enjoyable “event,” or project of my involvement with the Association has been the Travel Committee.

The Travel Committee was organized by the Executive Committee of the Association in 1970, I believe, and I was asked to become chairman, a position I have now held for forty-six years. During that time I and the Association’s Administrative Director organized, and I led and lectured to members of the Museum Association on trips throughout the United States, most of the countries of South America and Europe, Russia, Turkey and Egypt, and Asia - including one of the first American tourist groups to enter China, in 1982. We always emphasized special experiences and the world’s great museums and the cultures they interpret.

4. What other organizations are you involved in?
I seem to be a volunteer by nature! During my residency in Lubbock I have served as chairman of the board of St. Mary's Hospital; president of St. Mary’s Foundation, where we began the annual galas, conducted a major capital campaign and instituted the beautiful public art; member of the Foundation board of Covenant Health Care System, and still serve on various of the System's committees, a total of about thirty-five years. I served on the board of Ballet Lubbock and now its Advisory Committee; worked on the original founding board of the Underwood Center for the Arts for ten years and...
remain one of its advisors. Another board that I enjoyed was my service with the Lubbock Arts Alliance and its annual Arts Festival. Also, the City Appointments Advisory Board. One effort that was very gratifying and interesting was serving on the City Centennial Committee, planning that year of activities for Lubbock’s one-hundredth anniversary. I was proud to be president of the Lubbock Rotary Club, and greatly enjoy the board and my current presidency of Civic Lubbock, Inc., working with the City’s cultural arts grants, the Buddy Holly and Silent Wings Museums, the Walk of Fame Awards, Lubbock Music Now and the Civic Center. During the decades I also gave a great many “talks” and lectures to clubs and organizations in the city. I have also worked on the national level with my fraternity, Kappa Alpha Order, including fourteen years on its national board, including four as national vice president and four as national president, Knight Commander. I remain involved with the fraternity and am a Life Trustee of its educational foundation. Work with KA also let me into serving with the North American Interfraternity Conference, representing all of the American and Canadian fraternities, more than 70, in the United States, and serving as its national president, emphasizing leadership and academic development of the undergraduates.

5. Educational background?

I earned my B.A. degree in the honors program, Plan II, and also my Master’s Degree in history, with minors in political science and French, at the University of Texas at Austin. Then, thanks to my parents, I spent a year, 1959-1960, traveling in Europe, including an unusual and difficult trip for the time, to the Soviet Union, and spent the academic year studying at the Sorbonne in Paris. I received my Ph.D. degree in history at Duke University, and during my time there had the wonderful opportunity to be a Fulbright Fellow in Vienna, Austria, 1963-1964, attending classes in history and international law at the University of Vienna and doing my dissertation research in the State Archives, working in the wonderful old Baroque building from which the great Chancellor, Prince Metternich, once directed the diplomacy of Europe. I also did post-doctoral work in a special course at the U.S. Military Academy at West Point, and the American Graduate School of International Management. I also am proud of an honorary doctoral degree from Karadeniz University in Turkey.

6. Tell us about your history with TTU.

When I graduated from Duke in the summer, 1965, I came to Texas Tech. I had a number of job offers, mostly from large universities with well known professors, but Texas Tech offered me the opportunity to develop the Russian and East European history undergraduate and graduate classes. This was an opportunity not to be missed. An added attraction was that my family lived in Lubbock, and I had seen them only on vacations and holidays, because I had been either at university or living abroad for twelve years. Until my retirement in 2003 I continued to teach in the department, but after 1967 only one undergraduate course and specially arranged courses and graduate direction because I also entered the administration. For the next thirty-six years I served as Deputy Director and then Director of The International Center for Arid and Semi-Arid Land Studies (ICASALS), editing its newsletter, working on grants and development and playing my role in internationalizing the university. Then, in 1988, under the direction of the Provost, then Dr. Don Haragan, many of the major international components of the university were united into the Office of International Affairs (OIA) and I was honored to be named its first Executive Director and remained so until my retirement, Some years later our Office was so fortunate to have the funding to build, decorate, and occupy the magnificent International Cultural Center (ICC). I so enjoyed assisting in the interior configuration, the commissioning and helping to design the murals and to decorate the beautiful and highly functional building. The addition of the ICC created other areas of expansion of the mission of the Office of International Affairs. I also want to note my gratitude to Texas Tech for allowing me the opportunity to do consultancies and have appointments with various international, national and state departments and agencies, including serving on a US trade mission to Turkey, work in China, Israel and Palestine, Yugoslavia, Moscow, Egypt and several universities in Turkey. Texas Tech also encouraged my service on various Texas State committees and boards, including Texans for the Arts, the Texas Historical Foundation, the Texas Multistate Water Resources Planning Commission, and other similar activities.

Another aspect of my long association with Texas Tech was my genuine interest in the students, not just those in my classes, striving to offer them interesting, stimulating courses that opened to them new material and ideas and which prompted them to think about the material and to integrate it to their overall knowledge of the world and their place in it. I also believe that “education” is more than the classroom experience, and that the interaction with the other students and faculty, exposure to the diversity of what a university has to offer, and to opportunities to accept leadership responsibilities, is of utmost importance. I enjoyed my relationship with the students, and served as the Advisor to the Student Senate and Student Government. I recall liking to cooperate with one young man who became president of the Student Organization, and I was pleased to see him graduate, proceed to law practice, then to the Texas State Senate and now to head our system as Chancellor, Robert Duncan. Other groups I advised were the Mortar Board, Omicron Delta Kappa leadership co-ed fraternity, the KA Chapter, the World Affairs Conference of the Student Union, and Delta Phi Epsilon international affairs group. When I retired I endowed a scholarship to assist several students in the Department of History in being able to travel to other countries to conduct their research. So much today is “on line,” but there is nothing for a historian like actually touching original documents, seeing the same sites in the same culture that one is researching and writing about as a subject. I always enjoy attending the annual History Department reception at the end of the academic year, and seeing those students who have been selected by the committee to receive these scholarships is particularly gratifying.
7. **Hobbies/Interests.**

It is obvious that I enjoy travel and I continue to do so, now having gone to more than a majority of the world’s countries. I can truthfully say that I have never visited any country that I did not find interesting, attractive, and much to admire among its people. Certain places, of course, I have visited many times and for which I have special affection, especially where I have lived, gone to school, or emphasized in my teaching and research: Paris, Vienna, London, St. Petersburg, Moscow, Istanbul, Egypt, and in this country Washington, D.C., Savannah, New Orleans, Austin. Arranging and conducting the Museum Association’s travel program has been especially thrilling. And with all of that travel most of my life, I can genuinely say that I thoroughly enjoy my life here in Lubbock. Along with travel, collecting books and original historical documents has been a lifetime objective, since middle school. I buy five to ten books at a time and read one after the other, and love browsing in second-hand book shops to find a treasure. When I retired I discovered that my reading and collecting for over sixty years had resulted in a huge collection. I have donated thousands of books and historical documents to the Texas Tech Library, and to my surprise learned last year that I have the largest named collection in the Library, housed in the Southwest Collection. I continue to collect and each year donate many items to this collection.

8. **What direction would you like to see the Museum and the Association go?**

Over the decades there have been a number of strategic plans developed for the Museum and the Association, and of course progress is in tandem, because the Association’s sole purpose has been support of the Museum and its mission. The two greatest, most visionary, of these several plans were the first and the last. The plan that was drawn up when Dr. Murray saw the future of a great museum as part of the university’s commitment to excellence and greatness, and which resulted in the funds raised to build the great building we occupy, the planetarium, and also the Ranching Heritage Association, which at that time were under the same director. That plan was the momentum for the activities that began in the new building. Certainly the Museum has expanded, has been an outstanding institution in education and research. Now a new plan has been developed by Executive Director Gary Morgan. Unquestionably this is one, like the first, that is visionary of what a truly great museum can be. I am sure that we who are devoted to the Museum, assisting Jouana Stravlo and her staff through the Association, will be doing all possible to support and enhance the exciting adventure ahead in the ongoing progression of “our” Museum.
Happenings at the Museum
In Memoriam:
William C. Davies

Long time Museum Association member William C. Davies passed away on Friday, September 8, 2017 at the age of 101 years old. Bill and his wife, Evelyn have been persistent supporters of the Museum of Texas Tech University. The Davies have shared their treasures of Southwest Indian Art which can be seen in the permanent gallery named in their honor the William C. and Evelyn M. Davies Gallery of Southwest Indian Art.

Those who wish to honor Bill’s memory are encouraged to make a donation to the Texas Tech Foundation, Inc. for the William C. Davies Scholarship/Fellowship Endowment in Mechanical Engineering and mailed to Texas Tech University, Box 45025, Lubbock, Texas 79409.

*Bill will be greatly missed.*
The Texas Liberator: Witness to the Holocaust

Texas Tech University, with the generous support of the Texas Holocaust and Genocide Commission, have constructed an educational digital tool that introduces Texas high school students to the story of the Holocaust, that honors the heroism of our Texas soldiers who fought in WWII, but that also continues the important work of remembering this incredibly dark time in history. The project includes not only the making of an app, but also a web resource page, the publication of a display quality book by Texas Tech University Press, and now also an exhibit that will feature all aspects of the work but will truly spotlight the stories of 21 of these Texas Veteran Liberators.

The museum exhibit, which will be on display until December will not only provide a context for Second World War, a history of the Holocaust and the Liberation, but will offer an interactive, engaged experience of walking between 21 free-standing panels, each one honoring a Texas Liberator featured in this project. The exhibit will feature an Honor Roll - a wall with the names of over 300 Liberators the Texas Holocaust and Genocide Commission have recovered in their efforts to record and educate a wider public on the history of holocaust and genocide in the past and the present.


Marcando el relámpago

Marcando el relámpago is a collaborative exhibition, marking exchanges between an atmospheric scientist, Eric Bruning, and a visual artist, Tina Fuentes. The science and the art combine to present insights into lightning—a dynamic, powerful, and spectacular component of our planet’s weather systems. The language and practice of science often takes the form of rigorous logic and precise experiments. Technical analyses result in charts and graphs that compare theories to experiments. These processes seek to provide clear rationales for phenomena observed in the world. Art encourages understanding through expressive means: manipulation of color, shape, movement, composition, texture and more. In this exhibition, science and art combine to advance our understanding of lightning.

On exhibit through September 30, 2017 – January 28, 2018
**Andy Warhol Is in Lubbock...for more than 15 minutes**

This exhibition presents a major proportion of works of art by Andy Warhol that are in the collection of the Museum of Texas Tech University.

Following his death in 1987, Andy Warhol (born 1928) left a huge amount of artworks in his studio and home, many of which were sold to establish the Andy Warhol Foundation for the Visual Arts. The mission of the Andy Warhol Foundation has been to advance visual arts that are innovative, challenging and experimental.

Even after sales, thousands of artworks still remained in the Foundation's collections. On the 20th anniversary of the Warhol Foundation, these artworks were gifted to various American museums. The Museum of Texas Tech received an initial gift in 2007-08 of 160 Polaroid and black and white photographs, followed in 2013 by a donation of seven screen prints. Selections from these two gifts on are on exhibit here.

Warhol was a key figure in the development of Pop Art, experimental film and music, design, fashion, and much more from the late 1950s through the 1980s. His influence, especially in design and art continues, as does his status as a cultural icon. Warhol was gay and “out of the closet” in a time when living openly as such was not widely received.

His infamous observation that everyone will be “world-famous for 15 minutes” continues today as an expectation that finds promise in social media, a circumstance unforeseen by the artist.

Warhol was born and raised in Pittsburgh, Pennsylvania. He attended Carnegie Institute of Technology and after graduation pursued work as an illustrator. In the late 1950s several New York galleries began to exhibit his artwork and he garnered a reputation in the arts' communities as a controversial figure. His studio, known as The Factory, was a focal point of celebrities, musicians, other artists, actors, critics, drag queens, wealthy supporters, authors... just about anyone seeking alternative lifestyles, glamour, fun, and fame.

**On exhibit October 14, 2017 - February 11, 2018.**

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**From the African Savannah to the North American Grasslands: A Comparison of Mammalian Biodiversity and Natural History**

This exhibition is developed by the Museum of Texas Tech with funding support from the Helen Jones Foundation, Inc. The proposed exhibit features the underutilized and little known taxidermy mount collection of the Natural Science Research Laboratory of the Museum. This collection contains rare and charismatic species, including many herbivores and carnivores of the African Savannah and the North American prairies. In addition, the exhibit highlights the ecological parameters of these grasslands, as well as explores the natural history attributes of the animals that live in these regions.

**Opening January 2018**
Museums, including the Museum of Texas Tech, often announce new attractions. From exhibits, to shows, to campus events, change is part of museum life. Not so common, however, is an announcement that begins with, “Rent a space at the Museum.” Yes, we have rental venues, and not just one or two.

Previously open only to Texas Tech University entities and not-for-profit organizations, recent changes by the Board of Regents permit the Museum to make Museum meeting and banquet spaces more available to the public, expanding our commitment to Lubbock and surrounding communities. Now the Museum of Texas Tech University can offer a range of stylish, convenient, and unique venues for your special events—from small meetings and seminars to banquets, parties, and even stage performances!

Our facilities begin with the magnificent Helen DeVitt Jones Sculpture Court, a 12,500 square-foot area which soars two full stories in height and features twelve large skylights to bring in our abundant sunshine. Two independently controlled lighting systems provide several options for illuminating evening events. The Sculpture Court can accommodate up to 450 standing guests, or tabled seating for up to 300.

Adjoining the Sculpture Court is the Helen DeVitt Jones Auditorium. Featuring a recently updated sound and video system, the Auditorium has seating for 287. A rear-projection video system provides flexibility for any presentation. Raise the screen and you will find a small performance stage, complete with dressing and green rooms.

Our three meeting rooms span styles from straightforward to executive and can hold groups up to 88. Meeting rooms with full A/V capability are available in multiple sizes. Each space can be customized with projectors and microphones to meet any A/V need. (We even still have a slide projector if you need it!) Room packages are available for your small reception or birthday party, too.

Our commitment to community partnership extends to our venue rates. Civic and non-profit groups get the same discounted price as Texas Tech entities. This is our way of helping those who quietly help our community while rarely asking anything in return.

In opening our meeting and venue spaces to the general public, the Museum becomes more than a place to visit every few months, more than a place where dinosaurs roam and art hangs on the wall. We are a resource that can be utilized on a daily basis; a vibrant, thriving, useful contributor to both the general public and the business community. We want to be the exceptional setting for your next event!

Are you curious, even a little? Excellent! We would love for you to come by and see our facilities. Check out our web page. Send us an e-mail or give us a call at your convenience. We are happy to answer any questions, show you around, and discuss how we can be your unique venue.
Planetarium at night.

Photo: Ashley Rodgers
You can support the Museum

The Museum of Texas Tech University runs a wonderfully diverse program. We cover an extraordinary range of disciplines and collection areas, from the fine arts to the sciences. We carry out research on the collections and in the field, we develop exhibitions about all of the areas of our collections, and we present a wide range of events and educational activities for audiences spanning the entire community.

You can help us to do these things in two ways.

You can become a member of the Museum of Texas Tech University Association. This membership group has been a partner of the Museum since the Museum’s beginnings. You and your family can enjoy events and activities and know that your membership fees help the Museum in many different ways. You can find details on the Association on page 15 and a membership form is enclosed in this magazine.

The other way to support us is through cash donations, bequests, and endowments. We happily accept donations of any amount as every bit helps. Cash donations can be addressed to:

The Development Officer
Museum of Texas Tech University
Box 43191
Lubbock Texas 79409-3191.

Or you can ring us on 806.834.2833.

If you would like to discuss larger gifts and endowments, please contact either the Development Officer or the Museum’s Executive Director, Dr. Gary Morgan on 806.834.2792 or gary.morgan@ttu.edu.

If you have works of art or artifacts that you would like to see held safely in a publicly accessible collection, then we also welcome your contacting us. One of our curators will assess whether or not the objects align with the collection development priorities of the Museum. Collection donations can attract tax benefits.

Yes! I want to become a member in the Museum Association at the following level:

- Directors Circle $1,000
- Curator $500
- Benefactor $250
- Patron $150
- Museum League $75
- Friends & Family $50

Mr.  Mrs.  Dr.  Other
Name(s) as they should appear on MoTTUA cards:

Spouse (if applicable)
Address
City  State  Zip
Phone
E-mail

This is a gift membership from:

Method of Payment

- Check Enclosed (please make checks payable to Museum of TTU Association)
- Mastercard  Visa

Card Number
CVV Code
Expiration Date

Signature

Detach and mail to:
The Museum of Texas Tech University Association
3301 4th Street Box 43191
Lubbock, Texas 79409-3191

You may also join online at www.mottu.org or over the telephone
Please call the Association Office at 806.742.2443
TINA FUENTES | MARCANDO el RELÁMPAGO

Opening September 30 through January 28