OKLAHOMA ARCHAEOLOGY CONFERENCE

March 5–7, 2020

The University of Tulsa, Tulsa, OK

Oklahoma Archaeology Conference

March 5-7, 2020

The University of Tulsa

Contents

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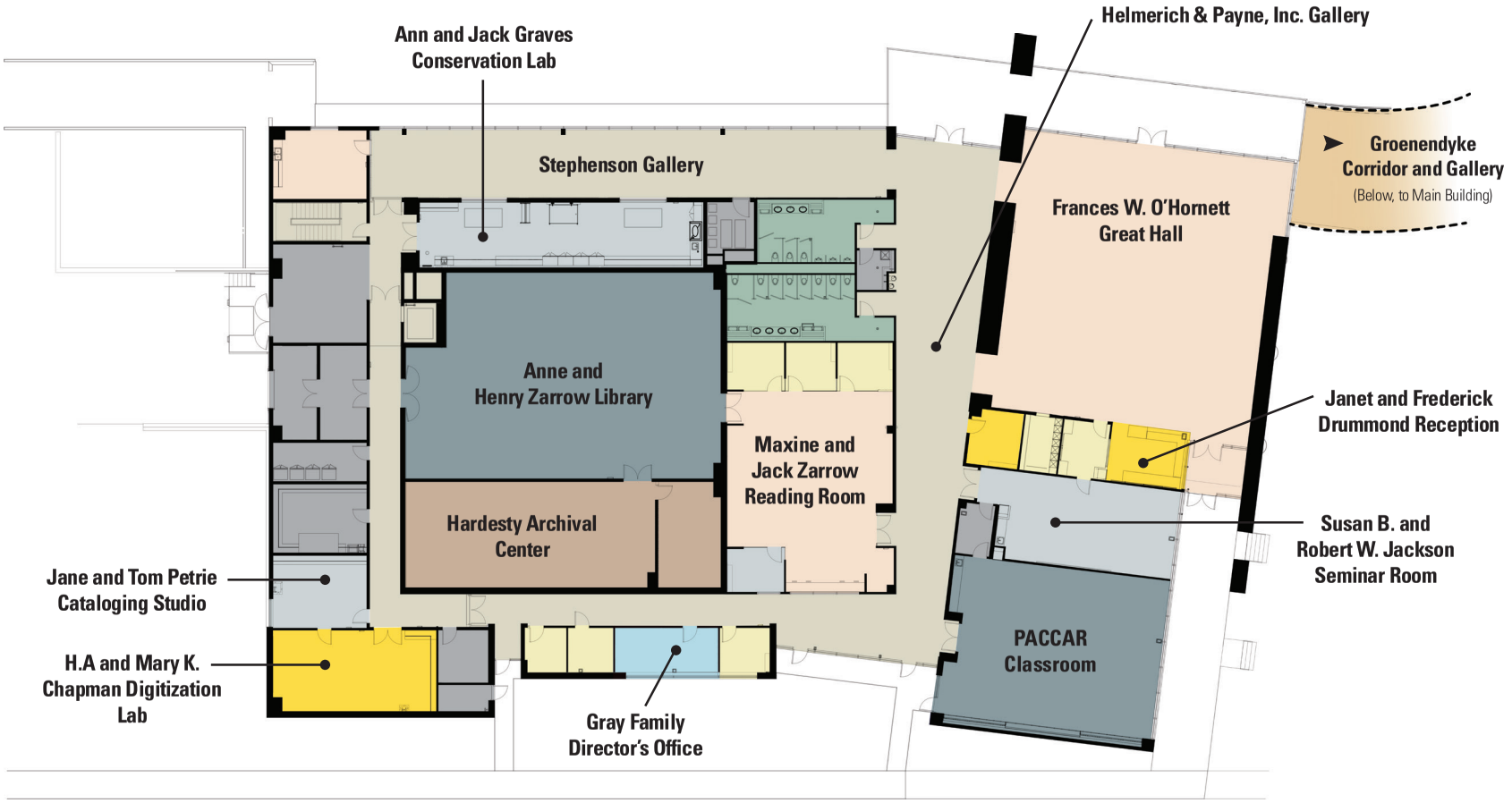


Location and Details

Thursday March 5, 5:30-7:30pm

Opening Reception: Pints and Posters

Location: Gilcrease Museum, Helmerich Hall, *1400 N Gilcrease Museum Rd, Tulsa, OK 74127*

Friday March 6 and Saturday March 7

Conference Location: Helmerich Center for American Research, *1400 N Gilcrease Museum Rd, Tulsa, OK 74127*

Workshops

On Friday March 6, 2-5pm, conference participants are invited to participate in a range of workshops. These will be held at various locations in Tulsa. Please see the Workshop section (page 19) for details.

About the Gilcrease Museum

The Thomas Gilcrease Institute of American History and Art, known as Gilcrease Museum, houses a comprehensive collection of the art, culture and history of North America. Thomas Gilcrease, a citizen of the Muscogee Creek Nation, established Gilcrease Museum in 1949 in Tulsa, Oklahoma. Today the interdisciplinary collection contains more than 350,000 items. The museum represents hundreds of Indigenous cultures from across North and South America, with material culture and archaeology ranging from 12,000 BCE to the 21st century. The collection includes more than 350 years of American paintings, sculptures and works on paper, including the largest public holdings of art of the American West

https://gilcrease.org/

About the Helmerich Center for American Research

Through innovative research, institutional collaborations, publications, educational programming, digital services, visiting scholars programs, and research fellowships, the Helmerich Center for American Research is dedicated to enhancing our understanding of human society and culture. The Helmerich Center for American Research at Gilcrease Museum houses the Gilcrease Library and Archive containing more than 100,000 rare books, documents, maps and unpublished works. As an institute for collections-based research, the center supports and creates opportunities for research and scholarship in the humanities.

https://gilcrease.org/helmerich-center/

Hotel Details

Holiday Inn Express & Suites Tulsa Downtown

- 310 East Archer Street, Tulsa, Oklahoma 74120
- 918-728-2444
- Complimentary Breakfast
- Daily parking: $10 per day
- Indoor pool and health center

Fairfield by Marriot Tulsa Downtown

- 111 N. Main Street, Tulsa, Oklahoma 74103
- 918-879-1800
- Complimentary Breakfast
- Daily parking: $15 per day
- Indoor pool and health center

Conference Dinner

The Vault

620 S. Cincinnati, 74103 Tulsa OK 74119

Friday March 6, 5:30-8:30 pm

The Vault resides in the Iconic Mid Century Modern building that was originally built to house the First National Auto Bank built from 1958-1959. At the time it was the world's largest auto bank with six drive through lanes. The bank had a private conference room named the Tom Tom Room that was said to have held over 350 meetings a year. The Tom Tom room still exists today and now serves as a gathering place for Tulsans, a night time hang out, over flow dining, and a private dining room.

Today The Vault is excited to serve classic American food and craft cocktails in a building like no other. The Vault focuses on quality food made from scratch and always using organic or all natural meats as well as fresh vegetables and fruit. The craft cocktails are made to order using house squeezed juices, house made syrups and fine quality spirits.

Outreach. Education. Collaboration. Community.

OKLAHOMA Public Archaeology Network

"Bridging communities with a passion for the past through public outreach, research and teaching partnerships, and professional development opportunities."

okpan.org

Program at a Glance

Thursday, March 5th

Gilcrease Main Lobby

Time	Session/Event
5:30 – 7:30 pm	'Posters and Pints' opening reception • Student poster session • Onsite registration

Friday, March 6th

Helmerich Center for American Research

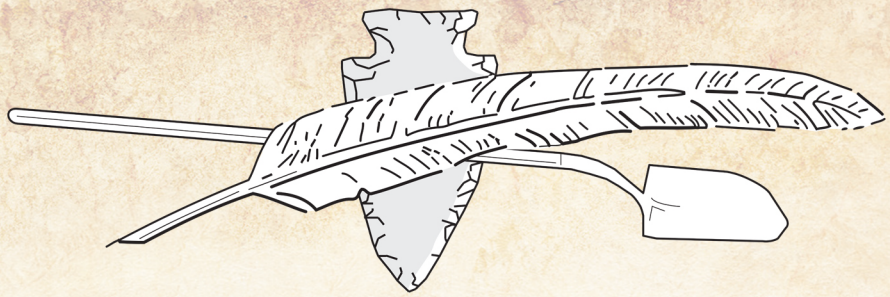
Time	Session/Event
8:00 – 8:15 am	Registration and Coffee • Coffee provided
8:15 – 8:30 am	Opening Remarks
8:30 – 10:00 am	Session 1: Community Collaboration and Education in Archaeology
10:00 – 10:15 am	Coffee Break • Coffee and snacks provided
10:15 am – 11:45 am	Forum: Shared Stewardship: Creating a Culture of Collaboration with Descendant Communities • Organized by RaeLynn Butler, Paige Ford, LeeAnne Wendt • Sponsored by OKPAN
11:45 am – 1:00 pm	Session 2: Networks and Movement in the Past
1:00 – 2:00 pm	Lunch • Food trucks at venue
2:00 – 5:00pm	Workshops • Held at various locations, see list
5:00 – 5:30 pm	Break
5:30 – 8:30pm	Conference Dinner • The Vault • http://vaulttulsa.com/

Saturday, March 7th

Helmerich Center for American Research

Time	Session/Event
8:00 – 8:30 am	Coffee • Coffee provided
8:30 – 9:45 am	Session 3: Tales from the Field: Archaeological Survey and Field Methods

9:45 – 10:15 am	Coffee Break • Coffee and snacks provided
10:15 am – 11:45 pm	Forum: A Conversation about State-wide Survey Standards • Organized by Karl Kibler, Colleen Bell, and Bobi Deere
11:45 am – 1:00 pm	Session 4: Human Environment Interactions
1:00 – 2:00 pm	Lunch • Food trucks at venue
2:00 – 3:00 pm	Session 5: Black Wall Street Archaeology: Memory, Racial Violence, and Resilient Communities
3:00 – 4:15 pm	Session 6: Social Identity and Material Culture
4:15 – 4:30 pm	Coffee Break • Coffee and snacks provided
4:30 – 5:30 pm	Keynote Speaker • Dr. Rudy Reimer/Yumks, Simon Fraser University



THE OKLAHOMA ANTHROPOLOGICAL SOCIETY

SUPPORTING ARCHAEOLOGY IN OKLAHOMA SINCE 1952

WELCOMES YOU TO THE

2020 OKLAHOMA ARCHAEOLOGY CONFERENCE

COME BY OUR INFORMATION TABLE
TO FIND OUT ABOUT THE SOCIETY

AND BE SURE TO VISIT THE
SPIRO VIRTUAL REALITY EXHIBIT

ARKANSAS STORIES OF PLACE AND BELONGING

PRESENTED BY THE UNIVERSITY OF ARKANSAS
SPONSORED BY THE SOCIETY

WWW.OKANTHROPOLOGICALSOCIETY.ORG - WWW.FACEBOOK.COM/OKLAHOMAANTHROPOLOGICALSOCIETY

Virtual Reality Experience: Arkansas Stories of Place and Belonging

PACCAR classroom, Helmerich Center for American Research

Sponsored by the Oklahoma Anthropological Society

Friday March 6th 12:00pm – Saturday March 7th 1:00pm

Arkansas Stories of Place and Belonging is a University of Arkansas (U of A) project, funded by a University of Arkansas Chancellor's Innovation and Collaboration grant. The Spiro VR presentation was created by the Tesseract Center for Immersive Environments and Game Design at the U of A.

About the Project

Arkansas Stories of Place and Belonging is an innovative public scholarship and engagement series that brings together scholar-experts, students, and the general public to engage in informed conversations about the region's fascinating history of human interaction. Utilizing objects and places as focal points to narrate compelling stories of the movement of humans and ideas across centuries, Arkansas Stories illuminates the story of what makes up our common heritage. Likewise, the series gives voice to the thousands of diverse peoples who left their imprint on our land, our culture, and our ideas. The series will be produced by an interdisciplinary group of humanities scholars representing the disciplines of archaeology, anthropology, immersive storytelling, English, literature, architecture, and history. Engaging and collaborating with the public in this humanistic endeavor promotes the university's land grant mission to deliver a liberal education. The series will also promote research and teaching collaboration that engages students in some of the most compelling themes of our time: migration, cultural change, belongingness, citizenship, and what it means to engage in civil discourse.

Virtual Reality Module Theme: Ritual Response to Global Climate Change at the Spiro Ceremonial Center

Little Ice Age (AD 1350-1850) climate changes imposed environmental stresses in many parts of the world. Across the mid-South, protracted droughts adversely impacted Native American food-getting economies along with political and religious systems. In response, communities located in the Arkansas River Valley, Western Ozark Highlands, and eastern Plains gathered at the Spiro ceremonial center to conduct a world renewal ceremony based on long-held narrative traditions. They assembled sacred objects from regional temples and shrines to create a diorama, or ceremonial display, preserved within a purposefully-constructed Hollow Chamber. The Hollow Chamber feature, also referred to as the Spirit Lodge, was later buried beneath additional sediments added to create the primary lobe of the Craig Mound at Spiro. The Hollow Chamber diorama symbolized the creation and maintenance of world order sustained through ongoing interaction between humans and spirit world beings and forces. The outlines of this story are accessible today via study of engravings on more than a hundred marine shell cups, also incorporated into the diorama, that depict scenes based on ancient narrative traditions. The storyline addressed in this project is the transfer of sacred power from spirit beings to humans, enabling humans to undertake world-changing actions. The power transfer is illustrated on a subset of shell engravings that depict the hand-off of a forked pole from a spirit being to a human ritual practitioner. The VR immersive experience will provide an opportunity for users to interact with ceremonial objects and personages to acquire a deeper understanding of the ritual process enacted at Spiro approximately 600 years ago.

Student Awards Information

This year the Oklahoma Archaeology Conference is pleased to announce two student awards: one for the Student Papers and the other for Student Posters. These awards were generously donated by the sponsors below. Student papers and posters are marked by an asterisks (*) in the program.

Student Paper Award

Thank you to the Oklahoma Public Archaeology Network (OKPAN) for their generous support of the student paper award. OKPAN bridges all of Oklahoma's communities with an interest in the past while promoting education, understanding, and outreach.

1st Place: $500

2nd Place: $250

Student Poster Award

Thanks to the Charles and Marion Weber Foundation for their support of the student prizes for poster presentations at this year's meeting. The Weber Foundation actively supports cultural and social service programs that contribute to the health and wellbeing of the Tulsa community.

1st Place: $300

2nd Place: $150

Conference Program

Thursday, March 5th

5:30-7:30pm

Gilcrease Museum, *1400 N Gilcrease Museum Rd, Tulsa, OK 74127*

'Pints and Posters' Opening Reception

Opening words and address by University of Tulsa Interim President Janet Levit.

The 'Pints and Posters' Opening Reception is an opportunity to meet the other conference participants over drinks and refreshments. During this event, conference posters will be set up, so you can explore the latest research during the reception. Posters will be moved to the main conference location on Friday and Saturday, so attendees will have the opportunity to revisit their favorite posters.

Judging for the student poster competition will take place during the opening reception and judges will talk with each student participant about their research.

Registration will be open throughout the event.

Posters

Name	**Title**
Jeremey Barton* (University of Oklahoma)	What do you CCC? Sourcing the Historical Sites of Yeager Gulch
Colleen A. Bell* (The University of Tulsa and Enercon Services Inc.)	How effective are these standards anyway? Testing various survey standards across a known archaeological environment
Brandi Bethke et al. (Oklahoma Archeological Survey)	Morphological Modeling and Biomolecular Analysis of Horse Remains from Three Wichita Sites in Oklahoma
Brittany Bingham et al. (University of Oklahoma)	Genetic Species Identification of Large Birds from the Dadiwan Neolithic Site in Northern China
Jessie Boyd (Alpine Archaeological Consultants)	The Grass is Greener on the Other Side…of the State Line: A Survey of Other States and Their Survey Standards and Practices
Ashley Brown (Enercon Services Inc.)	Archaeologists: Paradoxically digging too deep and not digging deep enough
Harmony Cole* (University of Oklahoma)	The State of Rockshelter Archaeology in Eastern Oklahoma

* student paper or poster

K. Michaela Conway* (The University of Tulsa)	Evaluating the Relationship Between Assemblage Size and Taxonomic Diversity in Clovis Faunal Assemblages
Carlos E. Cordova (Oklahoma State University)	Terminal Pleistocene-Holocene grassland and wetland dynamics at the Blackwater Draw locality, eastern New Mexico, using phytoliths and other proxies
Ella Crenshaw* (University of Oklahoma)	Taken for Granite: Rockshelters in the Lake Fork Valley of the Gunnison River
Naomi Cunningham* (University of Oklahoma)	Booze, Bitters, and Bird food: Analysis of Historic containers from for Fort Supply
Bobi Deere* (University of Oklahoma)	What Standards do I Respect? The Slippery Road of Cultural Resources Survey Strategy Planning
James C. Hartley	Last Appearance dates of Pleistocene Megafauna in the fossil record of Oklahoma
Riza McClurkin* (University of Oklahoma)	The Art of Documenting Projectile Points: The Importance of Using Drawing, Photography, and 3D Scanning in Tandem
Lupita Mendoza Valera* et al. (University of Oklahoma)	Understanding Netherstones in the Rockies
Mel R. Miller* (The University of Tulsa)	Microwear Evidence of Use at the Fauresmith site of Bestwood, South Africa
Cassandra Poole* (University of Science and Arts of Oklahoma)	Cemetery Survivorship in Chickasha, Oklahoma
Amanda Regnier and Scott Hammerstedt (Oklahoma Archeological Survey)	Geophysical and Archaeological Investigations of the Laundress Quarters, Fort Gibson, Muskogee County, Oklahoma
Audra Whitehurse* (The University of Tulsa)	Hunter-Gatherer Personal Ornamentation: Kharaneh IV in Context

* student paper or poster

Friday, March 6th

Helmerich Center for American Research, *1400 N Gilcrease Museum Rd, Tulsa, OK 74127*

Time	
8:00 – 8:30	Coffee and Registration

Session 1: Community Collaboration and Education in Archaeology

Time	**Name**	**Title**
8:30 – 8:45	Kate Newton et al. (Oklahoma Public Archaeology Network)	OKPAN Engagement and Collaboration with Oklahoma Tribal Nations
8:45 – 9:00	Allison Douglas* (University of Oklahoma)	Archaeological Literacy as Anthropological Literacy: A Case for Analyzing Oklahoma Social Studies Curriculum
9:00 – 9:15	Meghan Dudley* (University of Oklahoma)	Touching the Past to Remember the Past: Appling Archaeological Theory to Public Archaeology Education
9:15 – 9:30	Sarah Luthman* (University of Oklahoma)	Excavating Archaeology's Past: What the Public Should Know about NAGPRA
9:30 – 9:45	Meghan Dudley (University of Oklahoma)	OKPAN's Efforts to Develop a Citizen Scientist Preservation Program for Oklahoma: What Do You Think?
9:45 – 10:00	Question Period	
10:00 – 10:15	Coffee Break	
10:15 – 11:45	**Forum**: Shared Stewardship: Creating a Culture of Collaboration with Descendant Communities Organized by RaeLynn Butler, Paige Ford, LeeAnne Wendt *Sponsored by the Oklahoma Public Archaeology Network*	

Session 2: Networks and Movement in the Past

11:45 – 12:00	Kristine Beaty et al. (University of Oklahoma)	Trade of Bear Paws in Chinese Diaspora Communities of the 19th Century Examined using aDNA Methods
12:00 – 12:15	Danielle Macdonald et al. (The University of Tulsa)	Ancient Seafaring Explorers of Cyprus: Traversing Land and Sea during the Epipalaeolithic

* student paper or poster

12:15 – 12:30	Paige Ford* (University of Oklahoma)	Community Networks: Investigating Regional Interactions in Late Pre-Contact Oklahoma
12:30 – 12:45	Noah Place* and Cody Webster (University of Oklahoma)	Debitage Montage: A Debitage Analysis at Miller Flats in the Upper Gunnison Basin, Colorado

12:45 – 1:00 Question Period

1:00 – 2:00 Lunch

Food trucks at venue

2:00 – 5:00 Workshops (various locations)

- Gilcrease Collections: Explore Behind-the-Scenes
- Greenwood District Tour
- Introduction to Flintknapping
- Project Archaeology
- Traditional Caddo Pottery Demonstration (pit firing if possible)
- Twelve Steps to Writing Competitive Grant Proposals
- Villa Philbrook: Inside and Out

5:30 – 8:30 Conference Dinner

The Vault, 620 S. Cincinnati

* student paper or poster

Saturday, March 7th

Helmerich Center for American Research, *1400 N Gilcrease Museum Rd, Tulsa, OK 74127*

Time	
8:00 – 8:30	Coffee and Registration

Session 3: Tales from the Field: Archaeological Survey and Field Methods

Time	**Name**	**Title**
8:30 – 8:45	Karl Kibler (Cross Timbers Geoarcheological Services)	The Right Method for the Right Landform: Applying Geoarcheology to Archeological Survey
8:45 – 9:00	Charles Frederick (Consulting Geoarchaeologist)	Why look? The advantages of archeological sites found in dynamic geomorphic settings
9:00 – 9:15	Christian Hartnett (SWCA Environmental Consultants)	Shovel Test Standards. Does digging more holes mean more sites?
9:15 – 9:30	Rebecca Hawkins et al. (Algonquin Consultants, Inc.)	Ragtowns and Ghost Towns – Historical Archaeology at Land Run and Dust Bowl Sites
9:30 – 9:45	Questions	
9:45 – 10:15	Coffee Break	
10:15 – 11:45	**Forum:** A Conversation about State-wide Survey Standards Organized by Karl Kibler, Colleen Bell, and Bobbie Deere	

Session 4: Human Environment Interactions

11:45 – 12:00	Miriam Belmaker et al. (The University of Tulsa)	The role of seasonality in human adaptability in the early Pleistocene site of ‘Ubeidiya, Israel
12:00 – 12:15	Carlos Cordova et al. (Oklahoma State University)	Insular settlements on the eastern side of Lake Texcoco (Mexico): environmental change from middle Formative to late Aztec periods.
12:15 – 12:30	Mary Faith Flores* et al. (University of Oklahoma)	Ancient Turkeys of Oklahoma Project: Did Prehistoric Farmers in Oklahoma Domesticate Turkeys?
12:30 – 12:45	Thomas Foster (The University of Tulsa)	Resilience of the Muscogee Creek People

* student paper or poster

12:45 – 1:00	Questions	
1:00 – 2:00	**Lunch**	
	Food trucks at venue	

Session 5: Black Wall Street Archaeology: Memory, Racial Violence, and Resilient Communities

2:00 – 2:15	Alicia Odewale (The University of Tulsa)	Archaeology as a Path to Reconciliation in Tulsa's Historic Black Wall Street
2:15 – 2:30	Nkem Ike* (The University of Tulsa)	Rising from Ashes: An Archaeology of Memory, Landscape and Racial Violence
2:30 – 2:45	Scott Hammerstedt and Amanda Regnier (University of Oklahoma)	Searching For Graves From the 1921 Tulsa Race Massacre: Geophysical Survey of Oaklawn Cemetery, The Canes, and Newblock Park
2:45 – 3:00	Questions	

Session 6: Social Identity and Material Culture

3:00 – 3:15	Zachary Qualls* (The University of Tulsa)	Woven Resilience: An Ethnoarchaeological Approach to Social Change in Cherokee Basketry
3:15 – 3:30	Delaney Cooley* (University of Oklahoma)	Reading Stone: Athapaskan Lithic Procurement and Production Strategies in Scott County, Kansas
3:30 – 3:45	Coy Moses* (The University of Tulsa)	Visual Archeology: Native American Photographs as Artifacts of the Past
3:45 – 4:00	Joey Williams et al. (University of Central Oklahoma)	Pottery, Roman Identity, and the Mediterranean Economy in Alentejo, Portugal: Contrasting Assemblages from an Empire's Hinterland
4:00 – 4:15	Questions	
4:15 – 4:30	Coffee Break	
4:30 – 5:30	Keynote Address: Dr. Rudy Reimer/Yumks	
	Simon Fraser University	

* student paper or poster

Workshops

Workshops will be held on Friday, March 6, 2-5pm. Details for the workshops, including the locations, are listed below.

Title/Topic	Workshop Leader	Location
Gilcrease Collections: Explore Behind-the-Scenes	Laura Bryant	Gilcrease Museum *1400 N Gilcrease Museum Rd*
Greenwood District Tour	Alicia Odewale	Greenwood Cultural Center *322 N Greenwood Ave*
Introduction to Flintknapping	Gerald Franklin	Gilcrease Museum grounds *1400 N Gilcrease Museum Rd*
Project Archaeology	Meghan Dudley and Sarah Luthman	PACCAR classroom, Helmerich Center for American Research *1400 N Gilcrease Museum Rd*
Traditional Caddo Pottery Demonstration (pit firing if possible)	Chase Kahwinhut Earles	Gilcrease Museum grounds *1400 N Gilcrease Museum Rd*
Twelve Steps to Writing Competitive Grant Proposals	Bob Pickering	Jackson Seminar Room, Helmerich Center for American Research *1400 N Gilcrease Museum Rd*
Villa Philbrook: Inside and Out	Susan Green	Philbrook Mansion *2727 S Rockford Rd*

Workshop Descriptions

Gilcrease Collections: Explore Behind-the-Scenes

Laura Bryant, Anthropology Collections Manager and NAGPRA Coordinator, Gilcrease Museum

Visit the Anthropology collection behind-the-scenes at Gilcrease Museum with a special tour through storage. Gilcrease's Anthropology collection has over 200,000 items from North and South America ranging from Clovis points to contemporary Native American art. Take a peek at parts of the ethnographic collection not currently on display, get a taste of the scope of the collection in storage, and explore more in open visible storage. Workshop is free.

Greenwood District Tour

Dr. Alicia Odewale, Department of Anthropology, The University of Tulsa

As Tulsa prepares to mark the centennial of the Tulsa Race Massacre in 2021, new archaeology, art, and history projects have renewed a search for answers and healing after 100 years. Conference participants

are invited to join a walking tour of the Historic Greenwood District and learn about the rich history of Black Wall Street, the story of the massacre and the aftermath, as well as present day plans to revitalize this historic community. This district tour originally established by the John Hope Franklin Center for Reconciliation, with assistance from tour coordinator, Vanessa Adams-Harris, will include a tour of the John Hope Franklin Center for Reconciliation Park, Mount Zion Baptist Church, the Ellis Walker Woods Memorial, and Mount Vernon African Methodist Episcopal Church. Cost is $10 per participant.

Introduction to Flintknapping

Gerald Franklin

This workshop will provide an introduction to the basics of stone tool making. We will discuss stone types and selection as well as the necessary tools and processes required for the fascinating craft of flintknapping. In addition to learning the mechanics of how stone breaks (flakes) the participant will gain a better understanding of how prehistoric stone tools were made. Processes include hard hammer percussion, soft hammer percussion, and pressure flaking. All materials, tools, and Band-Aids will be provided. Class is limited to ten participants. Cost is $10 per participant.

Project Archaeology

Meghan Dudley and Sarah Luthman, Oklahoma Public Archaeology Network

Project Archaeology, a joint program of the Bureau of Land Management and Montana State University, is nationally recognized for its excellent lesson plans that enable K-12 teachers to bring real-world archaeological data into classrooms. Using hands-on, inquiry based pedagogical methods, Project Archaeology's curricula allow students to learn about the past – and the importance of that past to people today. However, these lessons are not only useful for formal educators in the classroom – they can easily be adapted for any public archaeology outreach event. Join Project Archaeology instructors, Meghan Dudley and Sarah Luthman, to learn how you can put activities from Project Archaeology: Investigating Shelter (2009) to use at your next event! Cost is $20.00 per participant (includes Project Archaeology book)

Traditional Caddo Pottery Demonstration

Chase Kahwinhut Earles

Chase Kahwinhut Earles will be demonstrating traditional Caddo pottery techniques and methods by showing how to process hand dug clay the old way using Southeastern ancestral tempers including grog and mussel shell, and then showing how to build a pot using the old coil method. Also being demonstrated are finishing techniques including burnishing and incising, as well as a possible wood pit-fire demonstration (permits pending). A brief history of Caddo pottery and its uses will be discussed and open Q/A while demonstrating. Cost is $10 per participant.

Twelve Steps to Writing Competitive Grant Proposals

Dr. Robert B. Pickering, Director, Museum Science & Management program, The University of Tulsa

Writing competitive grant proposals is a skill that supports academic research at all levels. As you begin your career, developing good grant-writing skills seems to be just one more daunting task that you're expected to know. This seminar will help you start thinking about how to construct a strong proposal by asking twelve basic questions about your project and what it should accomplish. Originally designed to help museums write better proposals, this process also applies to anthropological/archaeological research. Workshop is free.

Villa Philbrook: Inside and Out

Susan Green, Associate Curator for Special Collections, Archives, and Research, Philbrook Museum of Art

Explore the Philbrook Museum of Art with curator Susan Green. Built in 1926-27 by Waite and Genevieve Phillips, Philbrook combines a historic Italianate Villa and Gardens with spectacular art collections and exhibitions. In this special tour, discover the history of the Villa and Gardens, stories about the craftspeople who helped to build Philbrook, and the ongoing efforts to understand and preserve the building fabric, decorative elements, and surrounding landscape of Tulsa's first museum. Philbrook admission fee of $9.00 to be paid at the venue.

Keynote Address

Saturday March 7, 4:30-5:30pm

Helmerich Center for American Research, *1400 N Gilcrease Museum Rd, Tulsa, OK 74127*

How can archaeological media serve as a path to reconciling colonial interpretations?

Dr. Rudy Reimer/Yumks (Associate Professor, Simon Fraser University)

How can the study of ancient past benefit modern First Nations communities? As host and lead archaeologist on the Aboriginal People's Television Network Series Wild Archaeology and 1491, Rudy Reimer is bringing Indigenous Archaeology to new and wider audiences through alternative media. Dr. Reimer will discuss his experiences bridging the divide between the academy and the community to bring history to life in ways that traditional scholarship never could.

About Dr. Reimer/Yumks

As a member of the Squamish Nation, most of my research focuses on my home territory and surrounding areas of the Salish Sea. I also have broader interests on the Northwest Coast, the Plateau and western Subarctic culture areas. My work focuses on bridging western science with various forms of Indigenous Knowledge. I achieve this through using geoarchaeological (lithic sources/quarries, site locations, sediments, remote sensing) and archeometric (14C dating, X-ray fluorescence) techniques of archaeology and find links to Squamish Nation/Indigenous Knowledge (oral history, toponymy, ancestry). I focus on this approach because it puts into practice the goals of Indigenous Archaeology through giving back the results of my research to the communities I work with. This makes my research relevant to academic scholars and to First Nations community members who have an interest in the past.

I also express my research interests through television media. I am the host of a currently 2 season series airing on Aboriginal Peoples Television Network (APTN) titled Wild Archaeology. This television series episodes spans across Canada and gives numerous examples of how archaeologist work in meaningful collaboration with Indigenous communities. This series won the Canadian Archaeological Association Public communications Award in 2017. I am also featured on 2 other APTN's series titles 1491 and Coyote Science and on the Knowledge Network on Edziza Life from Ash and Ice. I pursue these venues of disseminating knowledge as they reach a large mass of people in the effort to dispel misconceptions of Indigenous culture and history.

THE UNIVERSITY of TULSA

Department of Anthropology

Look beyond the world you know. Explore different times and places with a degree from the TU department of anthropology.

TU students learn a wide range of theoretical approaches and work closely with their professors to gain hands-on experience in all undergraduate and graduate programs.

Anthropology is an international discipline and TU students have the unique opportunity to participate in active research programs across the globe with TU faculty.

The department houses six laboratories and numerous prehistoric and historic research collections, which are available for undergraduate and graduate study.

Incoming students declaring an anthropology major are eligible to receive a yearly $2,500 scholarship thanks to generous support from the George H. Odell Memorial Endowment Fund. Graduate and undergraduate students are also eligible for research funding through the endowment.

To apply or learn more, visit utulsa.edu/anthropology.

Forum Abstracts

Shared Stewardship: Creating a Culture of Collaboration with Descendant Communities

Organized by:

RaeLynn Butler (Historic and Cultural Preservation Department Muscogee (Creek) Nation)
Paige Ford (Oklahoma Public Archaeology Network, University of Oklahoma)
LeeAnne Wendt (Historic and Cultural Preservation Department Muscogee (Creek) Nation)

Sponsored by Oklahoma Public Archaeology Network

Moderated by LeeAnne Wendt

As archaeology progresses into the coming decade, it is imperative that all peoples interested in the protection of cultural heritage continue to question and improve the discipline's methods, practices, and ethics. In line with this goal, this forum seeks to emphasize and illustrate the importance of communication and collaboration with descendant communities. Five Tribal Historic Preservation Officers will discuss their views on how to develop relationships, on best practices, and on their successful partnerships with non-Native archaeologists. The panel members will demonstrate how the advancement of a shared culture of collaborative research in Oklahoma and beyond can aid in giving a comprehensive view of history. The conversations held wherein will highlight the power of communication in its many forms to bring communities of archaeologists together and move towards a synergistic relationship of knowledge sharing.

A Conversation about State-Wide Survey Standards

Organized by:

Colleen Bell (University of Tulsa and Enercon Services, Inc.)
Bobi Deere (University of Oklahoma)
Karl Kibler (Cross Timbers Geoarcheological Services)

Archeology as practiced under Section 106 of the Historic Preservation Act in the state of Oklahoma is regulated and reviewed by several Federal agencies. There are also many Federally recognized tribes and other interested parties that review and consult on Section 106 archeological projects. There are no survey standards that apply to all projects within the state and at times there are multiple agencies and groups with oversight, each with standards that can be at odds and some with no standards at all. The array of standards has resulted in confusion, leaving contractors perplexed regarding not only on what survey methodologies are appropriate, but also project budgeting. Complicating matters more are one-size-fits-all standards that inadvertently overlook settings with significant site potential and bias our efforts towards geomorphic settings of low contextual integrity and marginal data. The purpose of this discussion is to see if all parties, including (but not limited to) contract archeologists, oversight and review agencies, and Tribal Historic Preservation Offices, are interested in developing one set of meaningful survey standards for the state and discuss how a set of standards that all parties can agree on be crafted and adopted.

Poster Abstracts

What do you CCC? Sourcing the Historical Sites of Yeager Gulch

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The Lake Fork Valley of Colorado is rich with the history of early Anglo-American settlers as they travelled west in search of gold and other minerals. Yeager Gulch is located north of Lake City in the Upper Gunnison Basin and contains two historic dumpsites. These dumpsites date from 1870 to 1950 and contain many hole-in-cap cans as well as aqua and amber colored glass. These finds and others inspired me to explore who used these items and when exactly they were manufactured. To address those issues, I examined the historic documents located in Lake City, Colorado, gathered oral histories of the site, and did my own personal research. This poster highlights finds from the dumpsites and my interpretations of them.

How effective are these standards anyway? Testing various survey standards across a known archaeological environment

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There are numerous survey standards in archaeology, but do we really know how effective they are in locating cultural resources? While there have been many arguments about the superiority of particular strategies in determining the presence of archaeological resources, this poster will put some of those to the test and determine what, if any, differences there are between various published standards.

Morphological Modeling and Biomolecular Analysis of Horse Remains from Three Wichita Sites in Oklahoma

Brandi Bethke (Oklahoma Archeological Survey), Sarah Trabert (University of Oklahoma), Sheila Savage (Oklahoma Archeological Survey), and William Taylor (University of Colorado Museum of Natural History)

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This poster presents preliminary results of our analysis of horse remains identified from three Ancestral Wichita sites—Deer Creek (34Ka3), Bryson-Paddock (34Ka5), and Longest (34Jf1). Following a detailed morphological examination, the remains were 3D modeled and sampled for radiocarbon dating, stable isotope analysis, and ancient DNA. Data gathered for this project will be used for both local research on understanding the dynamics of horse husbandry among the Wichita, as well as part of a larger project studying the introduction and spread of domestic equids among Native communities across the Plains, Southwest, and Great Basin.

Genetic Species Identification of Large Birds from the Dadiwan Neolithic Site in Northern China

Brittany Bingham (University of Oklahoma), Loukas Barton (DUDEK), Krithivasan Sankaranarayanan (University of Oklahoma), Cara Monroe (University of Oklahoma), Ariane Thomas (University of Iowa), and Brian M. Kemp (University of Oklahoma)

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We present information and insight drawn from the Neolithic of northern China (ca. 8,000 – 5,000 BP) about the manner by which large, meaty birds (including potential precursors of the domestic chicken) were drawn into the human biome. Long before they were essential staples, they (along with a range of different, but similar birds) were an occasional, and strategic feature of low-level agricultural life, itself marked by cyclical variations in the relative importance of domestic taxa. Here we analyze ancient DNA to identify the species of eight bird samples from the Neolithic components of the Dadiwan site. DNA was well preserved in each, with seven of the samples yielding mitochondrial DNA sequences indicating they were of the common pheasant (*Phasianus colchicus*). Further genetic differentiation of four of these specimens indicates them to be one of three subspecies: *Phasianus colchicus pallasi, Phasianus colchicus strauchi*, or *Phasianus colchicus alaschanicus*. Deep sequencing of these specimens confirmed results. Importantly, no chickens were identified.

The Grass is Greener on the Other Side…of the State Line: A Survey of Other States and Their Survey Standards and Practices

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Unfortunately, all states are not equal when it comes to archaeological survey and reporting protocols and standards. While this makes sense when you consider the various environmental zones, depositional processes, and cultures, it is the fact that some states have addressed cultural resource survey standards more formally, others, such as Oklahoma, have no uniform set of standards. A survey of archaeological survey standards in select states other than Oklahoma is highlighted. A brief overview of best practices and useful policies is discussed.

Archaeologists: Paradoxically digging too deep and not digging deep enough

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Cultural resources studies are dependent on being financially solvent. For this reason, despite what the archaeological professional may feel is needed in a CRM Phase I survey, to push a survey that goes beyond the survey standards for that particular project would make the archaeologist uncompetitive and fiscally irresponsible. Conversely, having to put in shovel tests on a soil surface that predates any possible human occupation is likewise ineffective, not to mention taking away from time and cost that could be applied towards areas with deeply buried cultural soils. This poster examines the geological parameters that should guide and inform survey standards in CRM.

The State of Rockshelter Archaeology in Eastern Oklahoma

Harmony Cole (University of Oklahoma)

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For my research for my Master's Thesis at the University of Oklahoma, under the advisement of Dr. Bonnie Pitblado, I would like to submit my proposal for developing a plan of development for the rockshelters in the eastern counties of Oklahoma, and spreading awareness of their potential for future research. I will be working in tandem with the Oklahoma Archaeological Survey (OAS), and utilizing their site files to investigate distribution, level of disturbance, degree of testing, and numerous other factors to attempt to distinguish numerous sites that have the properties necessary for further investigation and possible excavation.

The rockshelters of eastern Oklahoma exist in a geological setting that facilitates the formation of karstic limestone caves in the western arms of the Ozarks, and quartzitic sandstone overhangs in the Ouachita Mountains. This poses them as unique sites to preserve cultural deposits that may provide clues about interactions between mobile populations on the Great Plains and more sedentary groups on the Mississippi. Additionally, according to the Oklahoma Archaeological Survey cultural material has been recovered from as far back as the early Archaic, suggesting a chronological depth in time that can provide insights on change over time that open air sites typically cannot.

The poster will display information on data regarding the current status of these rockshelters, as well as proposing promising areas of further investigation.

Evaluating the Relationship Between Assemblage Size and Taxonomic Diversity in Clovis Faunal Assemblages

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Clovis sites are the earliest and best-documented remains of hunter-gatherers in late Pleistocene North America. A long-standing debate revolves around the degree to which Clovis hunters were dietary specialists or generalists. In a recent paper DeAngelis and Lyman (Archaeological and Anthropological Sciences, 10:555-570, 2018) assessed the taxonomic richness of Clovis faunal assemblages and suggested that Clovis hunting strategies were neither specialized nor generalized. In this study, we evaluate DeAngelis and Lyman's findings by examining the influence of assemblage size on measures of taxonomic diversity. To do this, we use Ordinary Least Squares (OLS) regression to evaluate the relationships between assemblage sizes, measured as the number of identified specimens (NISP), and faunal richness, measured as the number of taxa identified in Clovis assemblages. We also use OLS to evaluate the subsets of these data used by DeAngelis and Lyman, including their different estimates of taxonomic richness (conservative versus liberal estimates) and divisions by site type (including single event kills, multiple event kills, and camp sites). Our results indicate that sample size does not influence kill site taxonomic richness. Only camp site assemblages show a significant relationship between sample size and taxonomic richness. We suggest that this difference is a consequence of kill sites being locations where only one or a few species are dispatched and initially butchered, whereas camp sites are locations where the products of different kills are brought to and secondarily processed and then consumed. Thus, our finding, that sample size influences the number of taxa at Clovis camps, suggests that increasing our

NISP samples at these sites (and increasing the number of camps) will improve our estimates of the number of taxa hunted by Clovis and therefore our understanding of Clovis hunting strategies.

Terminal Pleistocene-Holocene grassland and wetland dynamics at the Blackwater Draw locality, eastern New Mexico, using phytoliths and other proxies

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Grass silica phytoliths provide information on changes in the composition of grass communities, which permits inferences about climate and other environmental changes. This study presents the sequence of phytoliths through layers A to G at the Blackwater Draw locality (aka Clovis site) in Eastern New Mexico. Phytoliths provide various sources paleoenvironmental information in grass-dominated ecosystems. (1) The main source of paleo-grassland information comes from grass silica short cell phytoliths (GSSCP) which help establish information to establish the relation between C3 and C4 grasses, as well as the presence of subfamilies attached to certain environmental conditions. (2) Bulliform morphology and morphometry is used here as proxy for wetland conditions and evapotranspiration. (3) Percent of burnt-grass phytolith are proxies for paleofire incidence. (4) Phytolith concentration and deterioration are important taphonomic aspects with information about the local environment.

In addition to phytoliths other proxies provide auxiliary paleoenvironmental information. this study uses information from other biogenic silica particles (diatoms and sponge spicules), concentrations of microscopic charcoal, coprophilous fungal spores, to reconstruct other environmental aspects of the local grassland at wetland at the site.

Taken for Granite: Rockshelters in the Lake Fork Valley of the Gunnison River

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While rockshelters are considered to be rare in the Lake Fork Valley of the Gunnison River, neither the geology or cultural history of the region provide a reason why that should be the case. Due to this, I suspected that these formations and their prehistoric and historic use might not be uncommon. Through a search for both new and previously identified rockshelters within a 30 km stretch of this valley I addressed two questions: Are rockshelters rare in the Lake Fork Valley, and if not or if so, why? I was able to identify four sites, and my research suggests that many more are likely present in this area. Additional rockshelters in the Lake Fork Valley could yield valuable information about peoples of the past in Colorado due to their potential for deep deposition, good preservation, and representation of the environmental history of the region.

Booze, Bitters, and Bird food: Analysis of Historic containers from for Fort Supply

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This poster features the analysis of historic glass bottles and ceramic containers recovered from surface collection at Fort Supply by a private collector. Fort Supply (34WD0074) is located in Woodward County, OK and was an important military post from 1868 – 1894. The fort's dump, discovered south of the original fort, was thought to have been used until the closing of the post and subsequent decommissioning into 1895. The goal of this research was to determine who was using the dump site and how long the area remained in use by establishing the date range and the type of vessels present in the assemblage. Over four hundred and thirty containers, predominantly glass but also a few ceramic vessels, were analyzed. The bottles were dated and typed based on manufacture method, shape, color, and identifiable makers marks. Following the analysis of the assemblage, it is clear that in addition to the use of the area by those posted at the Fort, there was a continuous use of the dump site by the inhabitants of the nearby hospital and town of Fort Supply even after the Fort's closing.

What Standards do I Respect? The Slippery Road of Cultural Resources Survey Strategy Planning

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There may be more cultural resources survey standards than there are NHPA Section 106 bound Federal agencies and Tribes combined. How does an ethically minded survey crew plan their survey strategy when they could conceivably be under the jurisdiction of several entities with different standards? Examples of these types of situations, that have been encountered by CRM professionals, are highlighted and discussed in order to get an accurate picture of the cluster of problems that exists in Oklahoma today with regards to archaeological survey and the array of standards in existence.

Last Appearance dates of Pleistocene Megafauna in the fossil record of Oklahoma

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The extinction of the Pleistocene megafauna (Pleistocene-age mammals exceeding 45 kilograms adult body mass) of North America has been hotly debated for much of the last century. Hypothesized extinction causes include overhunting, climate change, and other fringe hypotheses (e.g., comet impact, disease, or solar activity). Roughly half of all extinct genera in North America lived alongside humans, according to some researchers (e.g., Grayson and Meltzer 2015). Of those contemporaneous genera, there is direct evidence of hunting by humans of only a few taxa (especially mammoths, mastodons, gomphotheres, bison, camels, and horses). This study reviews previously published data on megafauna fossils in Oklahoma. This is a review of which megafauna taxa were present in Oklahoma and when during the Pleistocene they were last seen in the local fossil record. Only a few megafauna taxa (mainly mammoths and bison) in Oklahoma coexisted with humans, while many other taxa (ground sloths, musk oxen, etc.) were no longer present. The fossil evidence suggests that the Pleistocene extinction was more environmental in nature, and that humans were not the sole cause (at least in Oklahoma).

The Art of Documenting Projectile Points: The Importance of Using Drawing, Photography, and 3D Scanning in Tandem

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I learned during the 2019 OU Field School in the Gunnison Basin of Colorado that there are multiple methods for documenting projectile points, such as photography, drawing, and 3D imaging. Each have their own advantages and disadvantages, though drawing has fallen out of style with technological advances in the archaeological field. Based on my own experiences, I will go over these advantages and disadvantages and why each method is important.

The two methods I became most familiar with during field school are photography and drawing, and I later researched 3D imaging independently. Photography is very useful for picking up color and texture in points, especially with professional level lenses in commercial markets. It does, however, require good lighting, which isn't always available in the field; and if archaeologists are not allowed to take artifacts from the site, there is no chance to set up artificial lighting, and it may require the photographer to spend less time with the point. Drawing is useful for helping archaeologists sit down and spend a lot of time with the artifact they are looking at and help them better pick out details. Unfortunately drawing can be time consuming and may not always be as accurate as a photograph. 3D imaging is an incredible way to have a scaled, digital copy of a point in the lab. However, the software is expensive, and the color and texture of the images is not always accurate.

Drawing, photography, and 3D imaging each have their own unique perspectives. All of them should be more widely used and in concert with each other to supplement potential gaps when one method is used over another.

Understanding Netherstones in the Rockies

Lupita Mendoza Valera, Amber Vinson, and Meghan Dudley (University of Oklahoma)

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For the mobile hunter-gatherers who called the Rocky Mountains home, expediently used groundstone, called "netherstones," were an essential part of their tool kit. However, identifying this type of groundstone can be difficult for archaeologists, because they were not intentionally shaped like formal metates and manos in the American Southwest. To help us identify these artifacts from naturally occurring rocks in the Lake Fork Valley of the Upper Gunnison Basin, Colorado, we conducted an experimental study. Using natural, local river cobbles for netherstones and handstones, we ground pine nuts on the surface of the cobbles for 1, 3, and 6 hours and then examined those surfaces under 65x magnification on a Dino-Lite microscope. Our results showed that even minimal use of 1 hour on the available rock in the area, there was surface wear left behind under magnification and that six hours of wear was both micro- and macroscopically visible. This knowledge can assist archaeologists working in the area, because evidence of grinding should be clearly visible, particularly under 65x magnification.

Microwear Evidence of Use at the Fauresmith site of Bestwood, South Africa

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The Fauresmith, an Early Stone Age (ESA) to Middle Stone Age (MSA) transitional lithic industry in South Africa, has the potential to inform researchers about technological innovation during significant periods of human evolution. This poster reports the results of research exploring microwear traces on lithic artifacts in order to understand lithic tool use at transitional sites. This research used the Fauresmith site of Bestwood, South Africa, as a case study. Artifacts at Bestwood are made on banded ironstone raw material, a little-studied material in microwear research.

Experimentally produced banded ironstone tools were used for a variety of activities on different contact materials. The results of these experiments were documented with an integrated microscopy method, combining optical microscopy with confocal microscopy, and compared to artifacts from the site of Bestwood to identify evidence of artifact use. This research will contribute to our understanding of Fauresmith assemblages by determining if and how the Bestwood tools were used and also to our understanding of how different lithic materials, in this case banded ironstone, react to use.

Cemetery Survivorship in Chickasha, Oklahoma

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Evaluation of survivorship of a population to determine how it has changed over the last century (1869-2019) in Chickasha, Oklahoma. Using cemetery demography techniques to collect birth and death dates in definite decade cohorts to calculate the survivorship in the Rose Hill and Fairview Cemetery. The survivorship data will then be compared between males and females from 1830-69 to determine gender survivorship. Other factors like infants will also be accounted for along with differing age data analysis. The finalizing data can then be compared to relating historical events that could have influenced survivorship globally and locally.

Geophysical and Archaeological Investigations of the Laundress Quarters, Fort Gibson, Muskogee County, Oklahoma

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In September 2019, the Oklahoma Archeological Survey conducted geophysical and archaeological testing of an area of the Fort Gibson Historic Site believed to be the Laundress Quarters area. Laundresses were the only women recognized by the United States military, and Fort Gibson would have had a number of laundresses who washed uniforms for the soldiers stationed at the fort. The results of the geophysical survey and archaeological testing indicate multiple buildings dating to the 1820s - 1840s were present in the area. Results of the survey and testing and recommendations for future work will be presented.

Hunter-Gatherer Personal Ornamentation: Kharaneh IV in Context

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During the Epipalaeolithic period, approx. 20,000-12,500 years ago, hunter-gatherer groups moved throughout the Near East and left thousands of unique artifacts along the way. Objects such as worked marine shells have been found at numerous inland sites, suggesting large networks of material culture and/or knowledge exchange. Identifying regional distributions of perforated marine shells can help trace interactions between different communities across the Levant. The Early and Middle Epipalaeolithic site of Kharaneh IV, located in the eastern desert of Jordan, represents a unique site due to the large accumulation of cultural material. Additionally, numerous perforated marine shells have been recovered from the site, hinting at long-distance trade or population movement from the desert to the coast, approximately 200 km away. This research will contextualize the perforated marine shells discovered at Kharaneh IV through comparisons with contemporaneous Levantine and European personal ornamentation, placing these artifacts in a wider regional framework. By considering Kharaneh IV within the larger context of hunter-gatherer personal ornamentation, we can learn more about Epipaleolithic cultural interactions, including information and material culture exchange networks.

Oral Presentation Abstracts

Trade of Bear Paws in Chinese Diaspora Communities of the 19th Century Examined using aDNA Methods

Kristine G. Beaty (University of Oklahoma), Brittany Bingham (University of Oklahoma), Mary Faith Flores (University of Oklahoma), Cara Monroe (University of Oklahoma), J. Ryan Kennedy (University of New Orleans), and Brian M. Kemp (University of Oklahoma)

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The influx of over 400,000 Chinese immigrants during and after the gold rush era of the 1800s led to the development of large-scale trade networks, not only within North America, but also connecting communities to resources from Asia. These networks provided access to traditional goods such as bear paws, commonly used in Chinese feasting and medicinal practices. Archaeological excavations routinely uncover bear remains in Chinese diaspora sites, but it was unclear where these specimens originated. Here, aDNA techniques are used to identify bear species to determine whether trade networks or local sources were utilized by Chinese immigrant communities from 19th century sites in California (n=11) and Oregon (n=7). Mitochondrial DNA was amplified and analysis was performed to differentiate brown (*Ursus arctos*) and black bears (*U. americana*). Thirteen (~72%) samples amplified and showed that paws from brown bears were most common in Californian sites, and were either imported from the northern part of the continent or harvested from the few brown bears still found nearby until the early 1920s. Black bear paws were found in Oregon sites indicating local harvesting. These results show that aDNA methods can be used to better understand how early migrant communities obtained resources.

The role of seasonality in human adaptability in the early Pleistocene site of 'Ubeidiya, Israel

Miriam Belmaker (The University of Tulsa), Omry Barzilai (Israel Antiquities Authority), Alon Barash (Bar Ilan University), Holly Noelle W. Ballard (Oklahoma State University College of Health sciences), Haley D. O'Brien (Oklahoma State University College of Health Sciences), Amy L. Prendergast (University of Melbourne), Bethany Theiling (NASA Goddard Space Flight Center)

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The role played in human evolution by climate and its fluctuations has significant implications regarding the fundamental niche and behavioral plasticity of early Homo that ultimately led to Out-of-Africa dispersal and global colonization. From an evolutionary perspective, the concordance of range boundaries and niche limits suggests that adaptation (or intraspecific evolution) is necessary for range expansion. At the same time, this implies that natural selection serves as a constraint on dispersal. It is clear there are still outstanding and mutually exclusive hypotheses regarding the role that the environment may have played in promoting early pan–continental migrations of Homo. Early Homo either had a poor capacity for adaptation to novel environments, resulting in dependency on grasslands to provide a biogeographical corridor; or was capable of rapidly adapting to novel extrinsic factors through intrinsic, and/or behavioral factors unique to humans.

'Ubeidiya is an early Pleistocene site in southwest Asia, dated to 1.6 – 1.2 Ma which has revealed extensive lithic artifact assemblages, fauna and scant hominin remains. Investigations since 1959 proposed several paleoecological reconstructions of the site with discordant results. Here we present

preliminary results from a new project using a suite of ecometric methods obtained on both large and small mammals. We use stable isotopes and tooth wear analysis and compare them to other taxon-specific ecometric paleoecological reconstructions.

Our results show the ecology of early Homo in southwest Asia shortly after the dispersal from Africa present a region with low levels of herbaceous vegetation and a high proportion of browse vegetation, suggesting environmental conditions that would have provided novel selective pressures on early Homo population.

Reading Stone: Athapaskan Lithic Procurement and Production Strategies in Scott County, Kansas

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Recent interest in early Athapaskan population movements has led to the reconsideration of Dismal River sites on the Central Plains during the mid-16th to 18th centuries. Although most archaeologists recognize Dismal River people as ancestral Apache, an unclear archaeological record and outdated evidence has led to continued debate. New syntheses of Dismal River chronology, ceramic technology, architecture, and subsistence supports an Athapaskan affiliation. However, lithics data are missing from recent discussions. I examine evidence for lithic procurement and production at three Dismal River sites in Scott County, Kansas, and relate my findings to broader discussions of Dismal River identity and Athapaskan communities across North America.

Insular settlements on the eastern side of Lake Texcoco (Mexico): environmental change from middle Formative to late Aztec periods.

Carlos E. Cordova (Department of Geography, Oklahoma State University), Luis Morett-Alatorre (Universidad Autónoma de Chapingo), Charles Frederick (Independent scientist, Dublin, Texas), and Lorena Gámez-Eternod (Dirección de Salvamento Arqueológico)

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This study highlights the geoarchaeological aspects of three settlements on the eastern lakeshore of former Lake Texcoco. The three sites are tlatel-type settlements, that is to say insular settlements formed by natural and cultural accretion of sediments. The study of tlateles in relation to the fluvio-lacustrine dynamics in the study area helps understand the origins of insular settlements elsewhere in the lakes of the Basin of Mexico. As an environmental context, this study discusses the dynamics of Lake Texcoco in relation to regional precipitation changes from the Late Formative to late Aztec periods. Finally, this study suggests that understanding the variables in tlatel site formation is the first step to reconstruct the origins of Aztec-Tenochtitlan.

Archaeological Literacy as Anthropological Literacy: A Case for Analyzing Oklahoma Social Studies Curriculum

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In recent years, archaeologists have become increasingly concerned with creating a more archaeologically literate public by incorporating archaeology into K-12 curriculum. Many archaeologists see archaeological literacy as an important factor in promoting heritage preservation and stewardship. Because archaeology is anthropology, incorporating a broader "anthropological literacy" into K-12 curriculum has the potential to combat latent ideologies undermining heritage preservation and other humanitarian concerns. However, it is questionable whether most public school curriculum is contributing to the creation of an anthropologically literate citizenry. In Oklahoma, policymakers have made efforts to embed important social science and social justice topics into state social studies standards, but are students actually absorbing these concepts in classrooms? Exploring the nature of social studies curriculum and instruction about Oklahoma's past provides a case in point for understanding this potential theory-practice gap and, by extension, help us to identify ways that we may be able to work toward fostering greater anthropological literacy among Oklahoma's students.

Touching the Past to Remember the Past: Appling Archaeological Theory to Public Archaeology Education

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Archaeologists have used post-processual theoretical perspectives to address social and emic questions about the past, such as those about history-making endeavors, social memories, and individual agency. Although such theoretical perspectives have been useful to understand people in the past, they have been relegated solely to academia: to assist researchers in their interpretations of the archaeological record. However, I suggest that concepts from practice and social memory theories actually have an applied potential for public archaeology to make our outreach more successful. These perspectives suggest that objects as mnemonic devices house memories and knowledge, which can be unlocked when people interact with them. As a result, I suggest artifacts – as the focus of the public's interest in the past – can be responsibly used in public archaeology education to teach people about the past. When we attach particular educational messages to artifacts and use them in lessons with the public, we not only meet the public's expectations to touch the past but also our own goals to share with them what we know about archaeology.

OKPAN's Efforts to Develop a Citizen Scientist Preservation Program for Oklahoma: What Do You Think?

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For several decades, citizen scientist preservation programs have proven to be a successful way to engage the public in the preservation of the archaeological record across the United States. From California to Florida, archaeologists have trained members of the public who are passionate about preserving the past to monitor sites, to document private collections, and to assist at public education events. In Oklahoma, where archaeological sites suffer from similar erosional and looting risks, the Oklahoma Public Archaeology Network (OKPAN) has decided to follow the models of other states and begun a multi-year

process to develop our own stewardship program. After a year of research, we have identified several programs that could serve as models and guides to our efforts moving forward. However, because Oklahoma is its own unique place with its own individual needs, we know we cannot create this program alone and solely based on our research. As a result, we are continuing our program development by asking what YOU want such a program to look like. In this paper, I present the results of our research and introduce our public survey by polling audience members for instant results on public perceptions and ideas about a potential OKPAN citizen science preservation program.

Ancient Turkeys of Oklahoma Project: Did Prehistoric Farmers in Oklahoma Domesticate Turkeys?

Mary Faith Flores (University of Oklahoma), Marc N. Levine* (University of Oklahoma and Sam Noble Oklahoma Museum of Natural History), Cyler Conrad (University of New Mexico and Los Alamos National Laboratory), and Brian M. Kemp* (University of Oklahoma)

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Anthropologists know of two independent turkey (Meleagris gallopavo) domestication events in Mexico and the American Southwest, yet relatively little is known about turkeys on the rest of the continent. In this project, we studied the domestication status of turkey specimens found in Plains Village sites from AD 1100-1450 along the Washita River in Oklahoma. We analyzed their mitochondrial genomes and stable isotope composition to determine whether they were domestic or wild birds. Mitochondrial DNA sequencing revealed which genetic lineages of turkeys were once in Oklahoma by comparing the archaeological samples to reference subspecies – M. g. intermedia (Rio Grande turkey), M. g. merriami (Merriam's turkey), and M. g. silvestris (Eastern turkey). Domestic populations will show reduced genetic variability relative to wild populations, as farmers selectively breed only a few birds for desired traits. Out of the samples that were successfully sequenced, we saw multiple lineages, which is the first indication that the turkeys were not being bred selectively like domestication would imply. Stable carbon (13C/12C) isotope ratios then gave insight into the turkeys' diets. Domesticated maize is a C4 plant (retaining more 13C), and has a distinct stable carbon isotope signal that few naturally occurring plants in the Washita River region exhibit. This is important because if turkeys were being fed by farmers with maize or any other C4 plant and potentially being domesticated, they would have higher values of δ13C. If the turkeys were wild foragers being exploited by the farmers, then they would have lower δ13C values. Our results showed low δ13C values, adding to the evidence pointing toward exploitation of wild turkeys by the prehistoric peoples of Oklahoma. Based on our results, ancient Oklahoma was not a center of turkey domestication but wild turkeys were well-utilized resources.

*acted in a supervisory capacity

Community Networks: Investigating Regional Interactions in Late Pre-Contact Oklahoma

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The Neosho phase (AD 1400-1650) in northeastern Oklahoma, northwestern Arkansas, southwestern Missouri, and southeastern Kansas represents a Late Pre-Contact peoples integrated into a complex system of interaction. Though researchers have historically struggled in understanding the origins or cultural affiliation of this phase, it is clear that Neosho peoples—in part due to their location in a valuable

ecotone—were enmeshed within a network of relationships with peoples on the Plains and in the Eastern Woodlands. This paper expands upon previous investigations conducted by the author which seek to clarify and better understand the nuances of these regional interactions during the Late Pre-Contact period. Using social network analysis on ceramic attribute data, these investigations will demonstrate the interconnectedness of communities of practice cross-regionally.

Resilience of the Muscogee Creek People

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This paper will describe interdisciplinary research over 15 years that shows how the Muscogee Creek people adapted various methods to deal with long term periods of extreme climatological fluctuations. Social organization and roles within societies developed to distribute knowledge and responsibility throughout the society. Men and women's roles and knowledge in the society developed as a distributed strategy that minimized risk and created resilience.

Why look? The advantages of archeological sites found in dynamic geomorphic settings

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Searching for archeological sites buried within dynamic geomorphic environments can be a tedious endeavor. Beyond the legal rationale that mandates searching for sites destroyed by development projects, the discovery of sites in such settings provide a number of clear advantages over sites found on the surface by pedestrian surveys. This presentation discusses the archeological advantages such sites hold and the challenge of finding them and assessing them.

Searching For Graves From the 1921 Tulsa Race Massacre: Geophysical Survey of Oaklawn Cemetery, The Canes, and Newblock Park

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In this presentation, we will discuss the Oklahoma Archaeological Survey's geophysical survey that was carried out in the fall of 2019 to locate graves associated with the 1921 Tulsa Race Massacre. We used a gradiometer, electrical resistance meter, and ground-penetrating radar to survey portions of Oaklawn Cemetery, the Canes, and Newblock Park. We will present our methodology and results.

Shovel Test Standards. Does digging more holes mean more sites?

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In the summer of 2016 SWCA conducted an archaeological survey that stretched from western Oklahoma to the Mississippi River. This project provided a unique opportunity to study the effectiveness of shovel testing. Survey methodology required 100 percent coverage of the project corridor which spanned three states with vastly different shovel test intervals. Where the project crosses from Oklahoma into Arkansas is within the same ecological region and has an identical cultural history. However, the required shovel testing in Arkansas is three times as intense as that which is required in Oklahoma. This paper will examine whether the increased frequency of shovel tests on the Arkansas side of the project detected more archaeological sites in comparison to the ecological and archaeological similar but less intensively surveyed Oklahoma side.

Ragtowns and Ghost Towns – Historical Archaeology at Land Run and Dust Bowl Sites

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Surveys in Kiowa and Woodward counties in western Oklahoma discovered two historical sites that appeared, at first blush, simply to be discard areas for household refuse. Initially, archaeologists assumed that the surface scatters of domestic artifacts at both sites were trash that had been generated at residences located outside project area boundaries and later dumped some distance from those sources. Indeed, no foundation remnants or building materials were identified by visual inspection at either of the artifact scatters. Interestingly, the artifacts at the two sites suggested much older dates than the average mid-century farmsteads typically located by cultural resources surveys. Additional archival research, as well as informant interviews, revealed totally different origins than "dumps" for the two sites. Field work at the site on the outskirts of Hobart, in Kiowa County, recorded household artifacts from what turned out to be a relatively unique type of very short-term residential context related to the land lottery in 1901. Investigations at the site in Woodward County revealed the remnants of a late 1800s to 1930s mixed-use residential and commercial building in what is now the nearly wholly abandoned town of Curtis, Oklahoma. In addition to other economic stressors, dust storms from 1934 to 1938 are credited with initiating Curtis' spiral into decline. Test units excavated as part of the research at the site in Curtis identified dust storm deposits associated with a feature that may be the remnants of a former cellar; wind-blown sands likely helped bury much of the site. The curious histories of both of these sites serve as reminders that thorough archival research (both historical and geomorphological) is necessary not only for purposes of interpreting historical site function, but also for understanding formation processes that figure into accurate estimations of site integrity and importance.

Rising from Ashes: An Archaeology of Memory, Landscape and Racial Violence

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Rising from Ashes compares four historic race massacre sites in Snowtown, Rhode Island (1830); Springfield, Illinois (1908); Tulsa, Oklahoma (1921) and Rosewood, Florida (1923). This project explores race massacres in the 19th and early 20th centuries the United State was reeling from these racial motivated violence events that permeated every corner of the country. During these acts, communities

were leveled, resources were gone and people became displaced. More importantly, however, people resisted and were resilient.

The objectives of this project are to (1) make visible the vast number of sites of racial violence that existed across the US; (2) a comparative approach is important because it allows for a critical analysis of the history of each site, eruption patterns in how the violence started and how the communities responded; (3) highlight the various forms of resistance utilized by the Black communities; (4) examine the contemporary implications these acts have had on descendent communities and the landscape (5) and highlight the need for more archaeological research to be conducted in these various sites.

The Right Method for the Right Landform: Applying Geoarcheology to Archeological Survey

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Landscapes consist of different landforms each with their own depositional, erosional, and soil formation histories, all of which influences the context, preservation, and visibility of the archeological record. Thus, a "one-size fits all" survey methodology that some project sponsors and reviewers typically advocate, can inadvertently overlook significant sites and bias the efforts towards settings with low integrity and marginal data. A landform-based survey methodology focuses efforts on settings with greater potentials to yield sites with integrity, while less effort is conducted on landforms with little to no potential. Implementation of such a methodology is accomplished by using search methods tailored to the landform investigated, which not only can be more successful in terms of the number and quality of sites encountered, but potentially more cost-effective too.

Excavating Archaeology's Past: What the Public Should Know about NAGPRA

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Talking about death can be hard. Talking about archaeology's history of grave-robbing can be even harder. Many archaeology students who are new to the profession take NAGPRA for granted and may learn nothing about its history, and this is cause for us to reflect on the ways that we justify our profession to a public that might view us as grave-robbers. In addition, without a working knowledge of the history of ethics in archaeology, it may be difficult for those working with collectors to convince them not to loot graves or take artifacts from Native American sites. A historical approach to this topic, with an emphasis on American colonialism and the long mistreatment of Native American tribes, may help new archaeologists engage with visiting publics, with undergraduates in introductory classes, and with schoolchildren during classroom visits. Respect for the dead can be hard to talk about, but avoiding the topic does no justice to our profession. We need to be transparent about why consultation with descendants is now a required step in making decisions about human remains.

This paper invites us to reflect upon what we believe the public needs to know about NAGPRA and archaeology's history of exhuming and analyzing human remains. Moving forwards, this project includes plans to survey the background knowledge of undergraduates in archaeology classes, as well as plans to meet with tribal experts who have an opinion about NAGPRA as human rights legislation. By considering the prior knowledge and dispositions of each of our audiences, and by combining the wisdom of many

different experts, even new archaeologists can deliver a clear message about archaeology's complicated relationship with human remains.

Ancient Seafaring Explorers of Cyprus: Traversing Land and Sea during the Epipalaeolithic

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The Mediterranean island of Cyprus was once thought to be peripheral to regional cultural developments during prehistory. However, recent research suggests that this island was initially inhabited 12,000 years ago, placing Cyprus at the forefront of research on Late Epipalaeolithic hunter-gatherer and Early Neolithic movements and exploration, as well as their associated technological innovations and impacts on shaping newly settled landscapes. Evidence for Epipalaeolithic occupation of Cyprus remains limited, however, with only a handful of known sites and only one chronometrically dated (ca. 12,000 BP). This presentation highlights new Epipalaeolithic discoveries from 2018 and 2019 field survey seasons by the Ancient Seafaring Explorers of Cyprus Project (ASECP), with the discovery of several new sites. These hunter-gatherers had knowledgeable and nuanced uses of landscapes, as well as technological innovations, allowing them to leave the Levantine mainland and explore new regions across the Mediterranean Sea. Through examination of these Epipalaeolithic sites, we aim to address the associated social contexts for the innovations that allowed for exploration and survival in new environments. Investigation of Epipalaeolithic occupations on Cyprus addresses issues of exploration and movement into new territories, moving beyond economic based theories of hunter-gatherer mobility strategies to understand why people explore the unknown.

Visual Archeology: Native American Photographs as Artifacts of the Past

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This research argues for the integration of historical family photography as personable representations of culture within academic research through applications of modern archeological theory. Sampled based on similarities of visual content, contextual information and identity, geographic location, and comparisons through time, data collection will observe how photographs from family albums represent larger cultural circumstance. The objectives are to gain deeper understandings of the combinations, interactions, and relationships of culture between people and the things (Hodder 2011) they produce—how they were made, used, repaired, discarded, or their meaning. Greater focus on photographs as material objects that interact with, record, and influence culture fall under aspects of Actor Network Theory (Knappett 2004, 2008) and the deliberate exploitation of transposed material agency. This intersection of archeological theory promotes visual research through qualitative methods, focusing on the 'Communication Process' (Chalfen 1997) of snapshot photography, meaning the sequence of events that include the encoding and decoding of images. The importance of this work concerns the visualization of human experience as an aspect of material culture from underrepresented communities, taken from the perspective of insiders, and that documents historical moments overlapping established academic observations. Initial research has utilized two albums from Osage and Yuchi families, examples produced and organized by individuals living in Oklahoma at the turn of the century that can be linked to defining moments in Native history. The conclusion is that similar examples of private-use photography exist as documentary records of cultural continuance through adaptation and survival in the face of incredible social change. Varying

combinations of context and visual information acknowledge both the photograph and camera as objects with larger connections to the material world of the photographer, substantiating comparisons of private photography that traverse social class, communities, and cultural groups.

OKPAN Engagement and Collaboration with Oklahoma Tribal Nations

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As home to thirty-nine tribal nations, Oklahoma is uniquely situated to serve as an example of what successful engagement and collaboration look like between descendant communities, archaeologists, and the growing number of people who represent an intersection of both. The Oklahoma Public Archaeology Network (OKPAN) seeks to bridge traditional archaeological interests with contemporary Native concerns and perspectives, creating space for ongoing conversations and opportunities for collaboration built upon a foundation of mutual respect and understanding. The methods we employ to accomplish these goals are diverse and work to highlight archaeology's impact on Native communities today as well as current Indigenous efforts to claim and revitalize their respective cultures and histories. Though we have made positive strides in a few short years, there is much we still plan to do and many goals we have yet to achieve. In this paper we will discuss our successes, challenges, and introduce our nascent "Tribal Collaboration Forum Series." This series will emphasize the diverse perspectives of descendant communities and topics of discussion will be decided upon by the participating discussants. It is our hope that through these endeavors we can build healthy, lasting relationships with the tribal nations in Oklahoma and allow these relationships to stand as an example for those who would wish to do the same in their own communities.

Archaeology as a Path to Reconciliation in Tulsa's Historic Black Wall Street

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Archaeology has been a powerful tool for social justice bearing witness to some of history's most heinous acts of prejudice and domestic terrorism. However, archaeology can only be an effective tool in the fight for justice when the field itself is equitable, diverse, self-critical, slow to excavate, and community centered. Next year, 2021, will mark 100 years since the Tulsa Race Massacre destroyed Black Wall Street, one of the wealthiest Black communities in the early twentieth century. As Tulsa-born archaeologists prepare to reanalyze historical evidence from 1921, create pathways to democratize knowledge, and launch new archaeological investigations, utilizing a slow community-based approach is essential. A collaborative project to map historical trauma in Tulsa from 1921-2021 along with a new initiative from the city to search for mass graves, will provide pathways toward reconciliation by slowly working alongside the community to find answers to questions still lingering after 100 years.

Debitage Montage: A Debitage Analysis at Miller Flats in the Upper Gunnison Basin, Colorado

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The Upper Gunnison Basin (UGB) in south-central Colorado, like many other mountain landscapes, contains four ecozones that that were regularly taken advantage of by hunter-gatherer groups. The 2019 University of Oklahoma Archaeology Field School conducted a pedestrian survey of a site named the Gatekeeper Site (5GN.6512) in the Lake Fork Valley of the Gunnison River (LFV), in order to better understand how these landscapes were used. The LFV lies at an intermediate elevation, so it would have been used by people travelling between higher and lower elevations. In the UGB, quartzite is found predominantly in lower elevations, whereas chert is more commonly found as elevation increases. 5GN.6512 is unique in a way because both chert and quartzite are present in large amounts, not unlike sites of similar elevation found in the Lake Fork. Understanding how these materials were used in the subalpine zone is important in regards to furthering our knowledge of how the landscape was used by hunter-gatherer people, as well as their lithic preferences. An in-field debitage analysis was conducted at 5GN.6512 to observe attributes such as location, material type, and the number of dorsal scars. In total, 736 debitage flakes were analyzed for 17 different attributes. There were no statistically defined clusters identified; however, a trend between the material type and number of dorsal scars was identified. In addition, quartzite flakes were larger than chert flakes on average. These correlations could indicate significant differences in the uses of the two lithic raw materials at locations where both are present.

Woven Resilience: An Ethnoarchaeological Approach to Social Change in Cherokee Basketry

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This research argues how the production of Cherokee baskets negotiates social agency and dependence on specific materiality during times of social duress and economic instability. Data collection will observe how the material properties of Cherokee baskets lend new insights into the way Cherokee people assert their identity and express cultural continuity during the time of forced removal into present day Oklahoma. The objectives are to gain deeper understanding of material dependence and cultural continuity through the continued practice of basketry production. With these objectives in mind, this work uncovers how basket production in Oklahoma and North Carolina shed light on concepts of material dependence through extreme historical trauma and massive dislocation of peoples in the last 150 years. The importance of this work concerns the material culture of Cherokee people and how the materiality of baskets demonstrates concepts of social and historical entanglements on a specific type of material culture as a means to negotiate cultural identity and social agency in changing social environments. The purpose for this research is to not only fill a vacuum in the almost ignored material culture study of Cherokee people, but also to expound on Material Thing Entanglements (Hodder 2011, 2012, 2018) regarding Cherokee people, material production, and Euro-American interactions. New theoretical frameworks provide explanations regarding cultural continuity and demonstrate indigenous ideas on self-representation and cultural identity through the production and maintenance of Cherokee baskets.

Pottery, Roman Identity, and the Mediterranean Economy in Alentejo, Portugal: Contrasting Assemblages from an Empire's Hinterland

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Recent excavations at two sites in rural Portugal have provided two distinct ceramic assemblages, each containing both ample examples of locally made pottery as well as imported wares from the wider Mediterranean. The first, a watchtower connected with the Roman colonization of the rural inland, is called Caladinho. The second is a large, long-occupied Roman rural agricultural villa known today as the Villa of Santa Susana. The pottery from Caladinho suggests a brief occupation by individuals with access to the Mediterranean economy and an interest in Roman products and cuisine. Although occupied amid a sometimes-violent negotiation over territory and identity between Roman colonists and native Iberians, Caladinho possesses greater proportions of Roman-style cooking wares, imported shipping containers, and fine table wares than the later, and far wealthier, villa. In comparison, Santa Susana's assemblage contains a proportionately smaller amount of imported pottery despite its much longer chronology and larger population. The Santa Susana villa, although an unmistakably Roman estate equipped with a bathing complex and exceptionally large domestic spaces, appears less connected with the Mediterranean economy and less interested in Roman products. This paper examines the potential reasons for this seemingly counter-intuitive relationship between Roman products, economic connections, and identity at colonization-period and post-colonization sites.

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