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Jesse Nowak

Diana Folsom

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# Digitizing Gilcrease Museum's Lemley Collection: Multi-Disciplinary Perspectives from Native Artists and Scholars

Jesse C. Nowak<sup>1</sup> and Diana Folsom<sup>2</sup>

<sup>1</sup>Department of Anthropology, University of Oklahoma, <sup>2</sup>Thomas Gilcrease Institute of American History and Art

*In 2014, The Thomas Gilcrease Institute of American History and Art received a grant from the Institute of Museum and Library Services (IMLS) to fund a project that created a multidisciplinary, searchable online catalogue of ancient Mississippian and Caddo ceramic vessels, the largest of its kind to date. This paper provides a summary of the history of the Lemley collection, its contributions to Caddo archaeology, and the development of the digitization program at the Gilcrease Museum. This work also highlights the major contributions made through the collaborative effort between museum experts, Native American artists, tribal representatives, and Dr. Ann Early, the project's lead archaeological expert and advisor.*

In 2014, The Thomas Gilcrease Institute of American History and Art was awarded a "Museums for America" digitization grant from the Institute of Museum and Library Services (IMLS) to work with experts and artists to image, catalogue, and tag a significant collection of ancient Caddo and Mississippian ceramic vessels. Ann Early was the primary scholar for this project, which resulted in a password-protected, searchable online database of ancient ceramic vessels that is among the largest and most comprehensive online catalogue of its kind. This digitization project focused on 3,500 whole vessels comprised primarily from the Lemley collection, an extensive corpus of artifacts from the Trans-Mississippian South. This online database is technically useful and appropriate for related indigenous tribes, and with approval, it is possible for other types of scholars, students, and artists to view these vessels and their digital record.

The Lemley collection is located in Tulsa, Oklahoma, at the Gilcrease Museum, an institute with one of the world's greatest collections of Native American and Western art. The recent digitization initiative at the Gilcrease Museum strives to improve the ways the collection is accessed and utilized to ensure it continues to contribute to scholarship in innovative ways while working with and respecting the concerns of tribal partners. It is also our goal that this living collection can allow tribal communities and Native artists new ways to connect to their ancestors. This paper provides

a brief overview of the history of the collection, its contributions to Caddo and archaeological research, and concludes by discussing its potential for the future.

## History of the Collection

It appears that Harold (Harry) Jacob Lemley, born in 1883, gained an interest in Native American history while living in Arkansas. For over 30 years as he practiced law and eventually became a district judge for the state (Federal Judicial Center 2020), Harry compiled a collection of an estimated 12,000 artifacts primarily from the Mississippi River valley in eastern Arkansas and the Caddo heartland in southwest Arkansas. Beyond the nearly 3,000 whole ceramic vessels, the collection includes ceramic fragments, projectile points and other tools made from stone, bone tools, shell artifacts, and carved stone pipes. Thomas Gilcrease, a member of the Muscogee (Creek) Tribe, was a known collector and art enthusiast who purchased the extensive Native American collection from the Lemley estate in 1955 (Milsten 1991). The collection is currently housed at the Gilcrease Museum, where the ceramic vessels are located in secured storage on site.

Though it appears that Lemley was attempting to conduct a more scientific approach by recording excavation data and publishing his findings, many of his collection practices continued the unethical destruction and control of Native American ancestors, sacred sites,

and material culture. He actively purchased objects recovered from persons who often looted sites, and even removed artifacts from “indian mounds” that were located on his own farmland (Lemley 1938:62).

Because of this history and the sensitive context and nature of this collection, the Gilcrease Museum worked with tribal representatives on this IMLS project and has begun actively consulting with tribal communities related to the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA). Currently, scholars or artists who wish to study the Lemley collection are allowed access according to museum guidelines. Since many of these objects are funerary in nature, tribal approvals are required for viewing in-person or online. The massive task to digitize the thousands of artifacts in the museum collection began in a systematic way in 2013 and will take many years of work by museum staff and qualified volunteers to complete. It is our hope that collaboration with descendant communities will continue with all projects concerning material culture.

## **The Lemley Collection’s Role in American Archaeology**

With the major speculations on the origins of the North American “Mound Builders” answered by the late nineteenth century, the agenda for American archaeology in the twentieth century began to focus on chronology, regional comparative analysis, and the practice of proper excavation and data recording methods nationwide (Willey and Sabloff 1993:83-84). This new standardization was not restricted to academics or professionals from mandated institutions, but was incorporated by regional avocationalists, who at the time were conducting the majority of excavations across the nation.

Lemley was one of a number of well-off individuals, like Clarence Webb and Thomas and Charlotte Hodges, who developed interests in Caddo archaeology and collecting. Among others, these dedicated avocationalists in Arkansas and northwest Louisiana were pioneers for the region before archaeological research standards came under more scrutiny. Much of this changed with events such as the National Research Council’s archaeological conferences

in the late 1920s and 1930s, where anthropology professionals made the first concerted efforts to standardize and regulate American archaeology. Lemley attended the St. Louis Conference in 1929, which focused on addressing the destructive but well-intended amateurs who did not practice adequate record keeping measures during excavations, and at times destroyed invaluable archaeological context (O’Brien and Lyman 2001:32-34).

This new program of regulating and improving archaeology by corresponding with local avocationalists is exemplified in the work of Judge Lemley. Though he purchased artifacts from other collectors, he also funded excavations led by experienced archaeologists like Samuel D. Dickinson and Gregory Perino. Both Lemley and Dickinson not only kept field notes of their excavations, many of which are on record at the Gilcrease Museum, but also published their findings (Dickinson 1936; Lemley 1936; Lemley and Dickinson 1937). Lemley is regarded as initiating the first scientific excavations at the Crenshaw site (3MI6), where his subsequent publication “Discoveries Indicating a Pre-Caddoan Culture on Red River in Arkansas” gave the archaeology community reliable and accurate data (Figure 1). This work, in turn, aided in identifying pre-Mississippian cultures in neighboring regions (Ford 1936:258; Girard et al. 2014:10). Lemley’s work at Crenshaw especially impacted the work of archaeologist James Ford, who headed much of the chronological research in the Mississippi River valley. Ford’s assertion that the Coles Creek ceramic complex was a precursor to later Mississippian ceramic assemblages was in part based on the Fourche Maline wares identified at Crenshaw (Girard et al. 2014:11). Harry Lemley was an example of “the serious-minded, thoughtful collectors... who sought information on their origins and functions by consulting libraries, fellow collectors, and, when possible, professional archaeologists” (Guthe 1967:435 as quoted by O’Brien and Lyman 2001:20).

The Lemley collection was also foundational in the creation of arguably the most important ceramic typologies in the history of southeastern archaeology. When used correctly, artifact typologies are a tool that can connect a particular artifact to a larger body of archaeological knowledge. Additionally, typologies could also provide further insights into regional



Figure 1. Photograph of Harry J. Lemley (*left*) and S. D. Dickenson (*center left*) at the Crenshaw site (3MI6) (courtesy of [texasbeyondhistory.net](http://texasbeyondhistory.net) [Texas Archeological Research Laboratory 2001]).

chronologies and identify expressions of cultural relationships (Phillips 1970:23). The duties of creating typologies for the Lower Mississippi Valley were shouldered by archaeologists Philip Phillips, James A. Ford, and James B. Griffin (2003) from 1940-1947, and by Philip Phillips (1970) in the Lower Yazoo Basin in the 1950s. In these seminal works, they created and refined ceramic vessel types in the Southeast by using artifacts recovered from their own excavations, as well as thousands of ceramics in private collections. The Lemley collection contributed to the definition of many well-known Mississippian ceramic types including Parkin Punctated, Kent Incised, Fortune Noded, Ranch Incised, Bell Plain, Neeley's Ferry Plain, Nodena Red and White, Old Town Red, Walls Engraved, and Carson Red on Buff.

Lemley's collection also proved instrumental in the creation of formative typologies for Caddo ceramics, with early studies in northeast Texas and Belcher types in northwest Louisiana both in part utilizing Lemley's data from Crenshaw to formulate their chronological sequences (Goldschmidt 1935; Webb and Dodd 1941:89). More comprehensive ceramic

typologies were published by the Texas Archaeological Society (Suhm et al. 1954) and later refined by Suhm and Jelks (1962) in the *Handbook of Texas Archaeology: Type Descriptions*. Types illustrated by examples from the Lemley collection include: Avery Engraved, Cowhide Stamped, Crockett Curvilinear Incised, East Incised, Foster Trailed-Incised, Friendship Engraved, Fulton Aspect Rattle Bowls, Glassell Engraved, Haley Complicated Incised, Hempstead Engraved, Hickory Fine Engraved, Hodges Engraved, Holly Fine Engraved, and Pease Brushed-Incised. Besides ceramics, the Lemley collection aided in the formation of projectile points typologies in Arkansas and the surrounding states. In *A Field Guide to Stone Artifacts of Texas Indians*, Lemley artifacts were used as examples of point types: Agee, Colbert, Hayes, and Homan (Turner and Shafer 1993).

As new theoretical approaches were explored in Caddo archaeology through the 1970s, scholars began to shift from the McKern taxonomic system and began to define phases and periods to classify time and space (Davis 1970; Hoffman 1970; Neuman 1970; Schambach and Early 1982). These new syntheses of the ancient

Caddo world at times relied on the Lemley collection, which also allowed for large scale and regional studies of ancient Caddo decorated ceramics. In more recent years, the Lemley collection has been utilized for diverse research topics from ceramic style analyses (Bryant 2014; Sabo et al. 2020), iconographic studies (Dye 2007; Lankford et al. 2011; Reilly and Garber 2007), NAGPRA compliance documentation (Perttula et al. 2014), Instrumental Neutron Activation Analysis and sourcing (Lambert 2017), and chemical residue studies (King et al. 2018; Lambert et al. 2021). Vessels from the collection have also been used in museum exhibitions and associated publications such as *Hero, Hawk, and Open Hand* created by the Chicago Museum of Art (Townsend 2004).

### **Dr. Early and the Lemley Collection**

From the project's inception, Ann Early shepherded the Gilcrease Museum's IMLS effort to digitize the collection. Ann was the natural choice to be the head scholar for this project, as she has devoted much of her life to the study of Caddo archaeology and is the foremost scholar on Caddo decorated ceramics. Working at the Arkansas Archeological Survey since 1972, Ann has researched the Lemley collection for over 40 years. She has also managed and curated other major collections of Caddo ceramics, including the famous Hodges collection housed at Henderson State University. Starting in the 1990s, she and the Arkansas Archeological Survey used parts of the collection in their research on the archaeology of the Carden Bottoms area of Arkansas. Their partial photographic database and catalogue has been a source studied by graduate students and professionals alike (Stewart-Abernathy 1990, 1994). The IMLS digitization project adopted many of the cataloging methodologies and terminology used by the Arkansas Archeological Survey due to their extensive experience and familiarity with the collection. Ann also connected the images and digital records created from the IMLS project to the extensive database overseen by the University of Arkansas.

Through her time in Arkansas, Dr. Early made major discoveries about the culture history of the ancient Caddo, especially in the Ouachita River basin (Early 1982; 1993), and, along with Dr. Frank

Schambach, was instrumental in updating temporal and cultural sequences throughout the state (Schambach and Early 1982). Ann has gained notoriety for her major contributions to the archaeological study of ceramics, first by adopting the "collegiate" or "descriptive" classification system for Caddo ceramics (Early 1988), and later through her innovative studies on decoration, especially on Friendship Engraved carinated vessels (Early 2012). Her exploration of intricate and masterful pottery decoration "grammars" highlighted the expert craftsmanship and complex production processes, and uncovered intricate histories about the communities that made them. Her life's work has aided the living Caddo in connecting more with their past, and has helped make ancient (and contemporary) Caddo pottery renowned worldwide as some of the finest examples of Native American craftsmanship and art.

### **Bringing Past to Present: The IMLS Project**

Dr. Early and Dr. George Sabo trained the IMLS digitization team in archaeological cataloguing methods, which were then used in a museum collections management software called "The Museum System" (TMS) by Gallery Systems. Digitizing for the project encompassed the recording of all basic metadata for each vessel. Additionally, information such as the ceramic typology, descriptive details, provenience data and curatorial notes were applied to each artifact.

For two full years after initial cataloguing and imaging was completed, Dr. Early patiently worked to review and correct the cataloguing for all 3,500 ceramics from her office in Fayetteville using a specially developed software application called the "Distance Cataloguing Interface" (DCI) (Figure 2). The DCI software was written as part of this IMLS grant with the knowledge that experts outside of the Gilcrease Museum's small curatorial staff would be needed to catalogue the rich, important, wide-ranging collection. The Anthropology collection alone would require more than 22 experts to adequately review, confirm and catalogue the collection.

A major source of inspiration was the Steve Social Tagging project's use of model software, created by the IMALab (now called the NewfieldsLab) in Indiana for the Newfields Art Museum over ten years

## Crockett Curvilinear Incised Bowl / Southeast, Prehistoric Caddo



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### DCI Feedback

Submitted By: [chase-earles](#)

Date: 10/17/2017 - 15:23

Tags: bowl black smooth burnished parallel lines circles hatched dots punctated curvilinear chevrons circles cracked engraved fragment

Submitted By: [ann-early](#)

Date: 11/18/2016 - 10:28

Comments: age est 1000-1400; rim is straight and outslanted. Body is globular. Rim is decorated with plain, widely spaced horizontal lines. Body panel has a set of festoons and triangles forming a modified zig zag motif. Bottom of festoons has a concentric circle with punctations filling the inner circle. Background is hatched above and below the zig zag motif. Two horizontal lines frame the bottom of the design panel. There is red pigment in the lines. Base of vessel is undistinguished.

> Add Feedback

Figure 2. Example of an object record in the Distance Cataloguing Interface (DCI), showing artist tags by Caddo artist Chase Earles and comments by Dr. Ann Early.

ago. With this early model of distance cataloguing in mind, Gilcrease Museum specified a new software, which was then developed and tested to become a more robust application that allows groupings of objects to be assigned in batches to individual experts, who can also search and sort through items based on date, culture, title, and object type. Each expert's progress can be tracked, reviewed, and approved (Figure 3). At the end of each project, after approval, the new data can be pushed into the primary database for preservation and appropriate internal access. For some projects, data can be parsed and moved to share online.

The final result of this project is a database that is stored in a password-protected area of the website maintained and updated by the Digital Curation department of Gilcrease Museum (Figure 4). Since its inception, the plan for this project was for the images and information to be accessible for consultations in compliance with Native American Tribal Historic Preservation Offices and NAGPRA guidelines.

## The Future of Gilcrease's Digital Collections

An unexpected positive result of the Lemley project was the start of a new naming effort initiated by the Caddo Nation of Oklahoma. The cataloguing question originally asked in the IMLS project was whether Native artists would need different search terms to help find vessels of interest. Are the archaeological naming conventions helpful for artist's research? The answer was that new search terms were needed. The project hired Caddo ceramic artists Jeri Redcorn and Chase Earles, Osage ceramic artist Anita Fields, and Quapaw ceramic artist Betty Gaedtko to develop a descriptive folksonomy for use in tagging all 3,500 vessels (Figure 5). Although the Caddo artists had already memorized the existing archaeological names, Jeri Redcorn expressed the need to go even further than adding tags for searchability. They requested new terms be developed to reflect their relationship to Caddo heritage. The terms need to be "indigenized."

## Distance Cataloguing Interface

Accession number  Culture  User  Project  Moderation status






Image	Accession #	Object title	Feedback	User	Last updated	Moderation state
	5425.491	Hodges Engraved Bottle	<b>Comments:</b> Is the design a continuous meander? You show only one piece of the motif in all these photographs, I can't follow the elements from one motif to the other. If this has a continuous meander, this is Hodges Engraved var Candlef. age est 1500-1700. Vessel has an everted lip, a spool neck, a slightly sub globular body, a circular slightly concave base. The motif consists, apparently, of a continuous blank meandering ribbon that circulates around the midsection of the vessel. This ribbon is bisected longitudinally with a single ticked line. Background is hatched and has blank orbs in it. The lower register just above the base has (4) diagonally oriented hooks or volutes, also with bisecting ticked line. (4). Several items under techniques need correction. Engraving and incising are different, and this vessel is engraved. Remove incising. The background is hatched, not cross hatched. Remove the latter. The vessel can be called polished. Remove burnishing. They are two different surface treatments and they don't appear together on the same vessel. add ticking as a technique. There might be red pigment in the lines. Needs checking.	ann-early	09/13/2018 - 14:28	Needs review <input type="button" value="Update"/>
	5425.1163	Bell Plain Human Effigy Bottle	<b>Comments:</b> ok, Bell Plain effigy bottle. age est 1350-1600. This vessel has a molded anthropomorphic face and head on the neck. Onfice is to the back of the head. Body is sub globular and base is undistinguished.	ann-early	09/13/2018 - 13:51	Needs review <input type="button" value="Update"/>
	5425.1964	Incised and Punctated Jar	<b>Comments:</b> Caney Punctated jar. age est 1500-1700. Vessel is a tall rimmed jar with a thickened everted lip, slightly outslanted straight rim, nearly cylindrical body and circular flat base. The rim has rows of diagonal narrow punctations that look like incised lines. The rows are spaced apart so there is undecorated surface between rows. The body is covered with rows and columns of angular punctations.	ann-early	09/13/2018 - 13:45	Needs review <input type="button" value="Update"/>
	5425.2392	Old Town Red Bowl	<b>Comments:</b> I'm not sure if this is really red slip, it looks like ochre or pigment and is unusually eroded and on a strange vessel shape. Old Town Red doesn't occur on carinated bowls. Might be Old Town Red carinated bowl. If so, age est 1350-1600. Vessel is a carinated bowl with flat lin inslantinn rim angle of carination conical body and flat	ann-early	09/13/2018 - 13:30	Needs review <input type="button" value="Update"/>

Figure 3. Example of DCI review screen with comments from Dr. Ann Early. On the right, see columns for tracking and review.









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### Crockett Curvilinear Incised Bowl / Southeast, Prehistoric Caddo



**Anthropology Item Information**

*©Gilcrease Museum*  
**Title(s):** Crockett Curvilinear Incised Bowl  
**Culture:** Southeast, Prehistoric Caddo  
**Date:** 500-1000 CE  
**Period:** Mississippian  
**Place:** Miller county, Arkansas  
**Materials/Techniques:** Clay, grog, incised, punctated, polished  
**Dimensions:**  
Overall (Crockett Curvilinear Incised Bowl): 6 1/2 x 5 x 3/16 x 5 13/16 in. (16.5 x 12.7 x 0.4 x 14.7 cm)  
**Classification:** Containers and Vessels  
**Object Type:** Bowl (vessels)  
**Accession No:** 5425.2350  
**Previous Number:** V-1439  
**Department:** Anthropology  
Not On View

**Tags and Search Terms**

**Tags:**  
Arkansas, bowls (vessels), Caddo Indians, ceramics, dark gray, funerary objects, grog, hatching, incised, Miller county, Mississippian, polished, punctated, southeast, Southwest Arkansas

**Native Artist Tags:**  
bowl, black, smooth, burnished, parallel lines, circles, hatched, dots, punctated, curvilinear, chevrons, concentric circles, cracked, engraved fragment

Figure 4. Example of the final project digital object record on the Gilcrease collections password-protected website.



In 2018, an entire meeting of the Caddo Festival held at the Sam Noble Museum was devoted to discussion of the naming of these ancient ceramics. The result was a decision to keep the existing archeological terms because they were so well known, and to also add terms in the Caddo language as new names to honor the Caddo creators. Both Ann Early and George Sabo agreed to begin using these new names in their archaeological studies as soon as a new system is established. It is hoped that the new system will take shape in the near future. Meanwhile, the artists' tagging component was completed for all of the vessels using everyday descriptive words about shapes, textures, finishes, animals, natural forms, terms used in pottery-making techniques, and motif names to assist them in finding vessels. Each artist who participated in the IMLS project found that their practice was enriched with this opportunity to closely work with such a large and unique ceramic collection. The authors were also impacted by working with the collection, which influenced their own artistic and academic ventures.

After the success of the Lemley project, a second IMLS digitization grant was awarded to Gilcrease Museum to expand the DCI software and increase its capabilities through a new project called "Convergence of Native Cultures in Northeast Oklahoma," which allowed the museum to work with an ethnographic expert from the University of Tulsa, Dr. Garrick Bailey, to identify or confirm information and cultural affiliation for 1,500 ethnographic items with uncertain associated information. In addition, Garrick Baily contributed a lifetime of stories about these objects and the history of northeast Oklahoma to make this project richer than ever expected.

In this second project, the DCI was used in a larger setting, displayed through a Smartboard in an Anthropology classroom where Garrick, two students, and a Digital Curation staff member showed the object images and data, asked questions, and recorded data as a team. In this setting, there were many first-hand stories shared because of Garrick's lifelong relationships with people who had ties to these objects and deep



Figure 5. Photograph of the IMLS project members. *Left to right*: Project Team Leader Jesse Nowak; Project Director Diana Folsom; Caddo artist Chase Earles; Osage artist Anita Fields; Quapaw artist Betty Geadtke; Caddo artist Jeri Redcorn; and project expert Dr. Ann Early (photograph courtesy of Zachary Qualls).

knowledge of events and subjects. In addition to cataloguing names of people, places, and events, and adding commentary, the sessions were recorded for the archives and future reference.

Recently, a third IMLS grant was awarded: “Learning from the Eddie Faye Gates Collection: From Trauma to Resilience” where the DCI will again play a prominent role in connecting with the community. This time the community members will be from North Tulsa, and they will tag photographs and audio recordings of survivors of the 1921 race massacre.

The study of the Lemley collection and the relationships with the tribes and artists continue today as the Gilcrease Museum moves forward with an interpretive plan for a new building, which will open in 2025. Informed by tribal consultations and led by descendants of the makers of these ancient vessels, new exhibitions are in early planning stages and will take a fresh approach to understanding this history. The Gilcrease Museum has purchased new pottery made in these ancient styles from artists who worked on this project, including Chase Earles, Betty Gaedtke and Jeri Redcorn. The new museum will show the pottery-making culture and traditions as they are still practiced today (Figure 6).

## Conclusion

The IMLS project resulted in detailed catalogue records and six to eight high-quality images for each

of the 3,500 ancient ceramic vessels from the Lemley collection. This project can now directly benefit the descendants of the pottery makers, namely the Caddo, Osage, and Quapaw nations, but other tribes in Oklahoma and surrounding states could also be affected by this collection due to their descendants’ connection to ancient cultures that shared iconographic and oral traditions.

It is now possible for native communities, especially native artists connected and interested in the traditions of early potters, to have new access to their material heritage, including the ability to study pottery styles, techniques, designs, and iconography of their ancestors. We hope this will encourage the continuation of pottery making in native communities as a practice that promotes cultural traditions and as a viable professional endeavor. Further, the knowledge of Mississippian and ancient Caddo societies in the Southeast can be expanded and enhanced with this large amount of accessible data. Though this project sought to address the needs of native groups and artists, archaeologists, and Tribal Historic Preservation Officers, we prioritized and respected the authority of descendant communities, and sought permission before disseminating information about the collection and its associated data.

With the aid of new digital technologies, the Lemley collection has the ability to be shared, preserved, and appreciated in new and exciting ways. It is our hope that the ongoing digital initiative at the

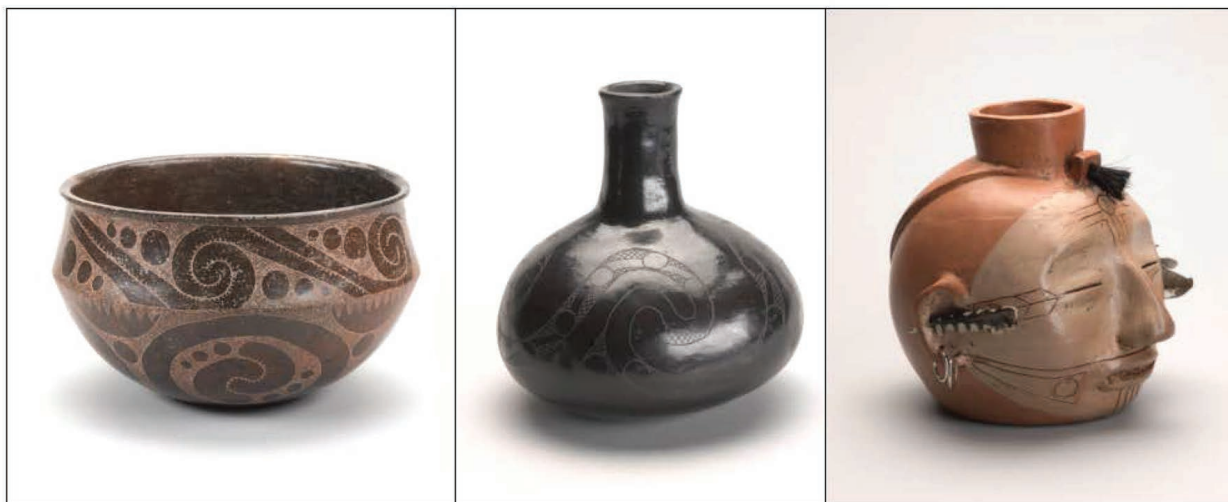


Figure 6. *Left to right*: “Kahwish Bahateno: Red River Bowl” by Chase Earles; “Caddo Bottle” by Jeri Redcorn; “Quapaw Headpot #323” by Betty Gaedtke.

Gilcrease Museum will connect Native American, local, and new communities together with mutual respect and admiration of North America's rich indigenous cultural heritage.

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