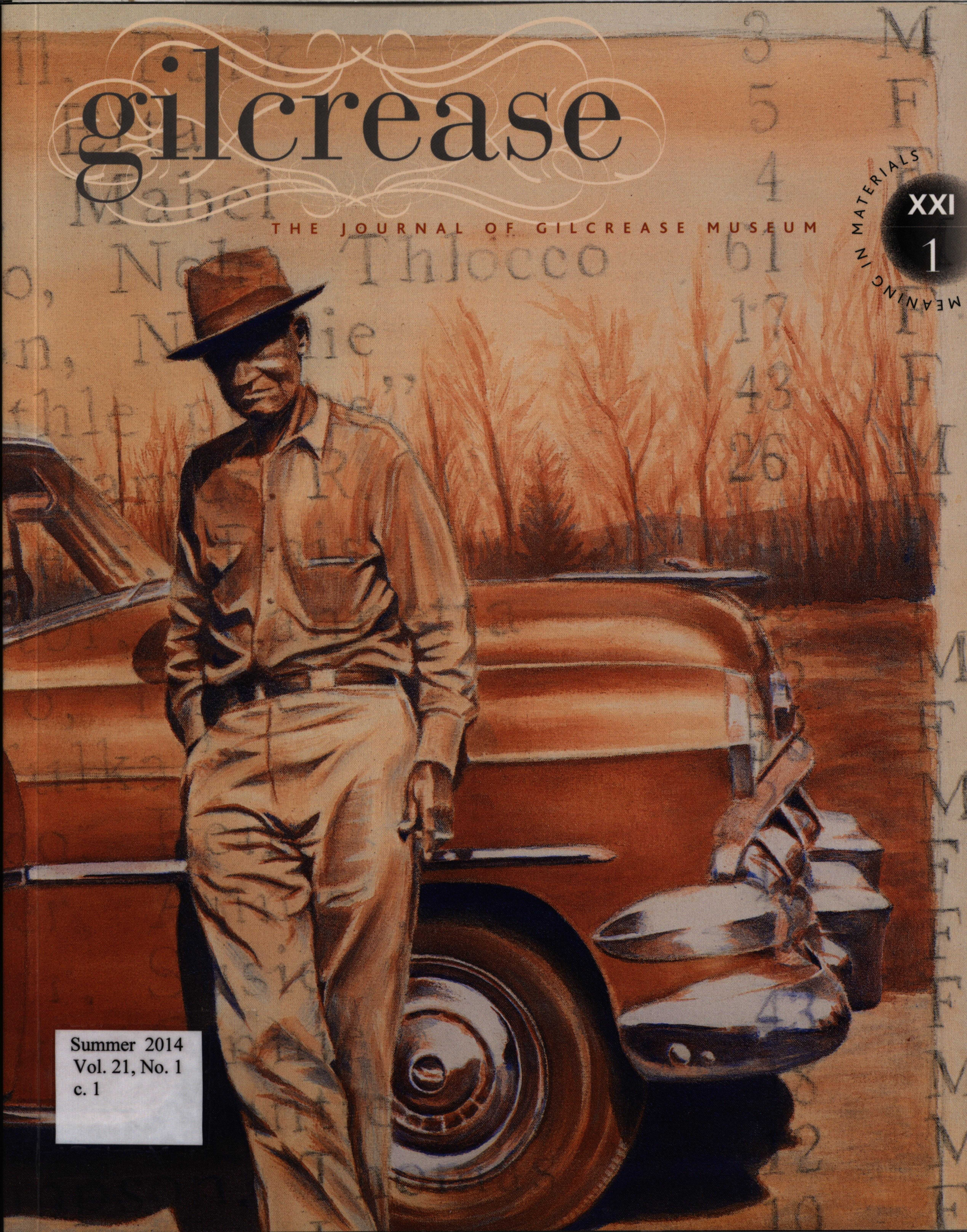
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THE JOURNAL OF GILCREASE MUSEUM

MEANING IN MATERIALS

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Summer 2014
Vol. 21, No. 1
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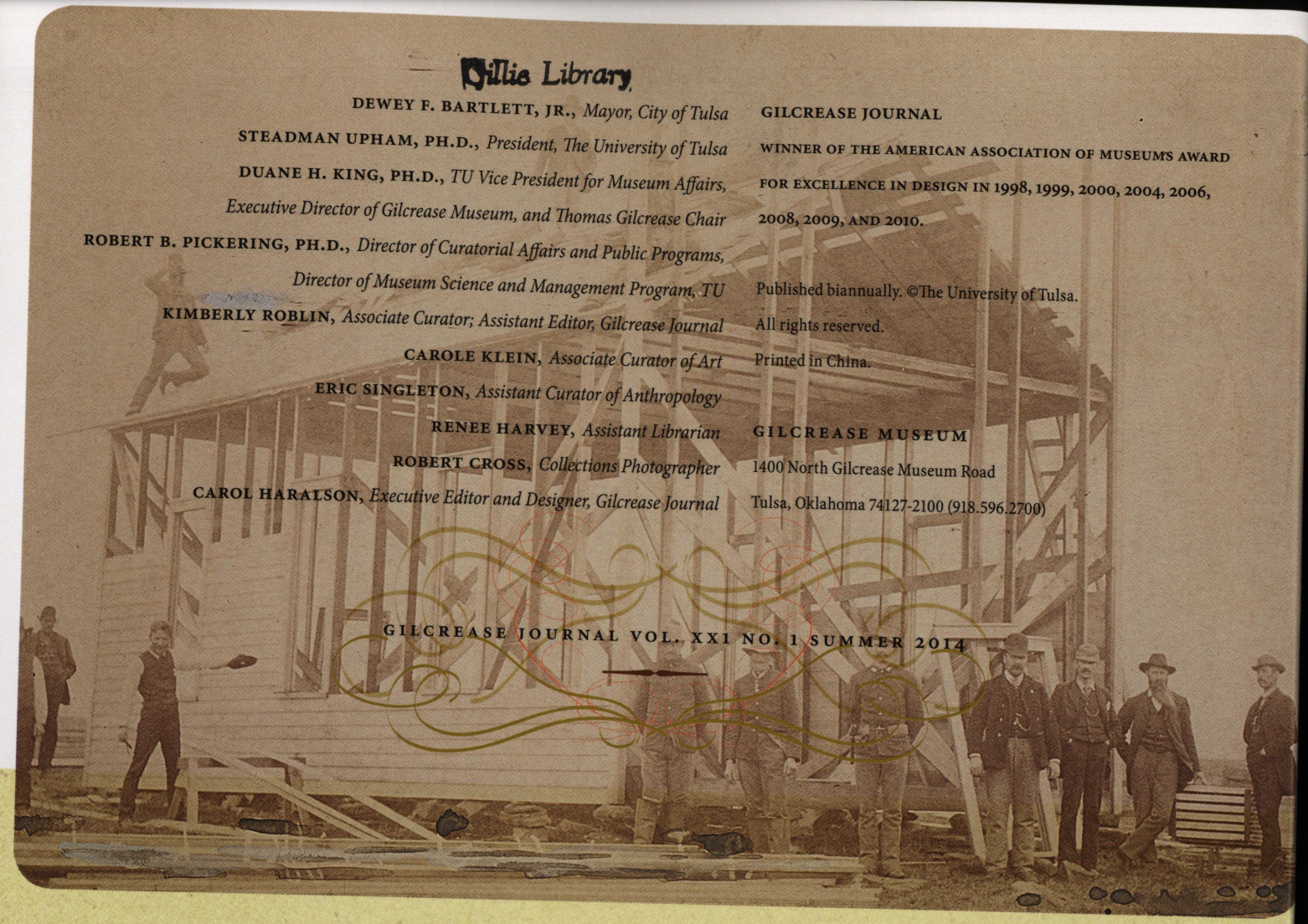
GILCREASE JOURNAL

WINNER OF THE AMERICAN ASSOCIATION OF MUSEUMS AWARD FOR EXCELLENCE IN DESIGN IN 1998, 1999, 2000, 2004, 2006, 2008, 2009, AND 2010.

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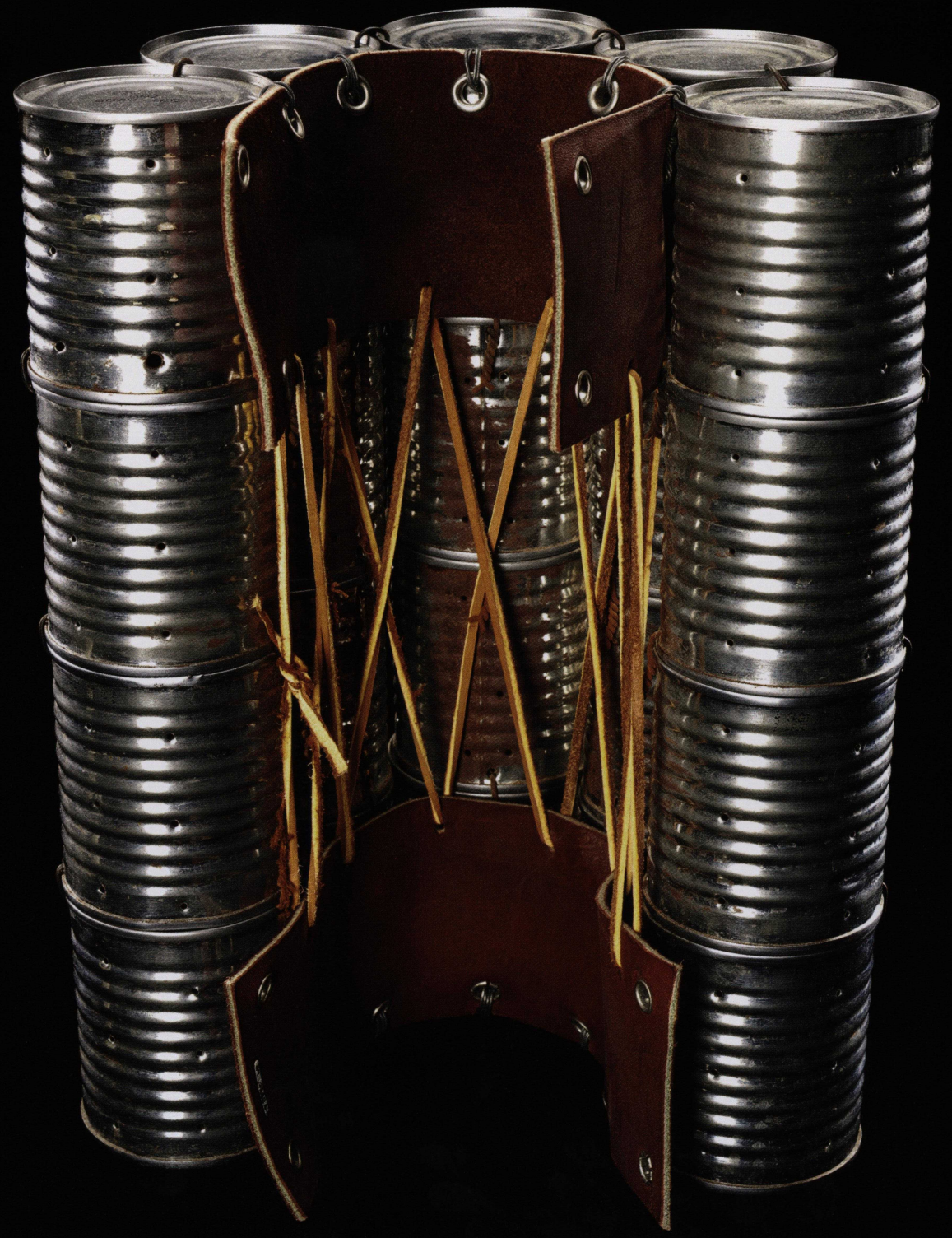
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MEANING IN MATERIALS

THE APPEARANCE OF AN OBJECT TELLS ONE STORY. THE MATERIALS EMPLOYED TO CREATE THE OBJECT CAN SOMETIMES TELL ANOTHER. THIS ISSUE OF THE GILCREASE JOURNAL LISTENS TO THE STORY WHISPERED BY THE COMPONENTS AND CONSTRUCTION OF OBJECTS.



Herbert Gottfried
Building Oklahoma
6

Why does Oklahoma architecture look the way it does? Timing, in part. Waves of settlers arrived in the Territory just as industrially-produced, rail-transported building materials were becoming readily available.

Bobby C. Martin
Layered Materials, Layered Meanings
20

. . . "each additional glaze of oil paint, each application of encaustic wax, is an act that builds up layer by layer to create both a physical and metaphorical representation of the effect of time and memory."

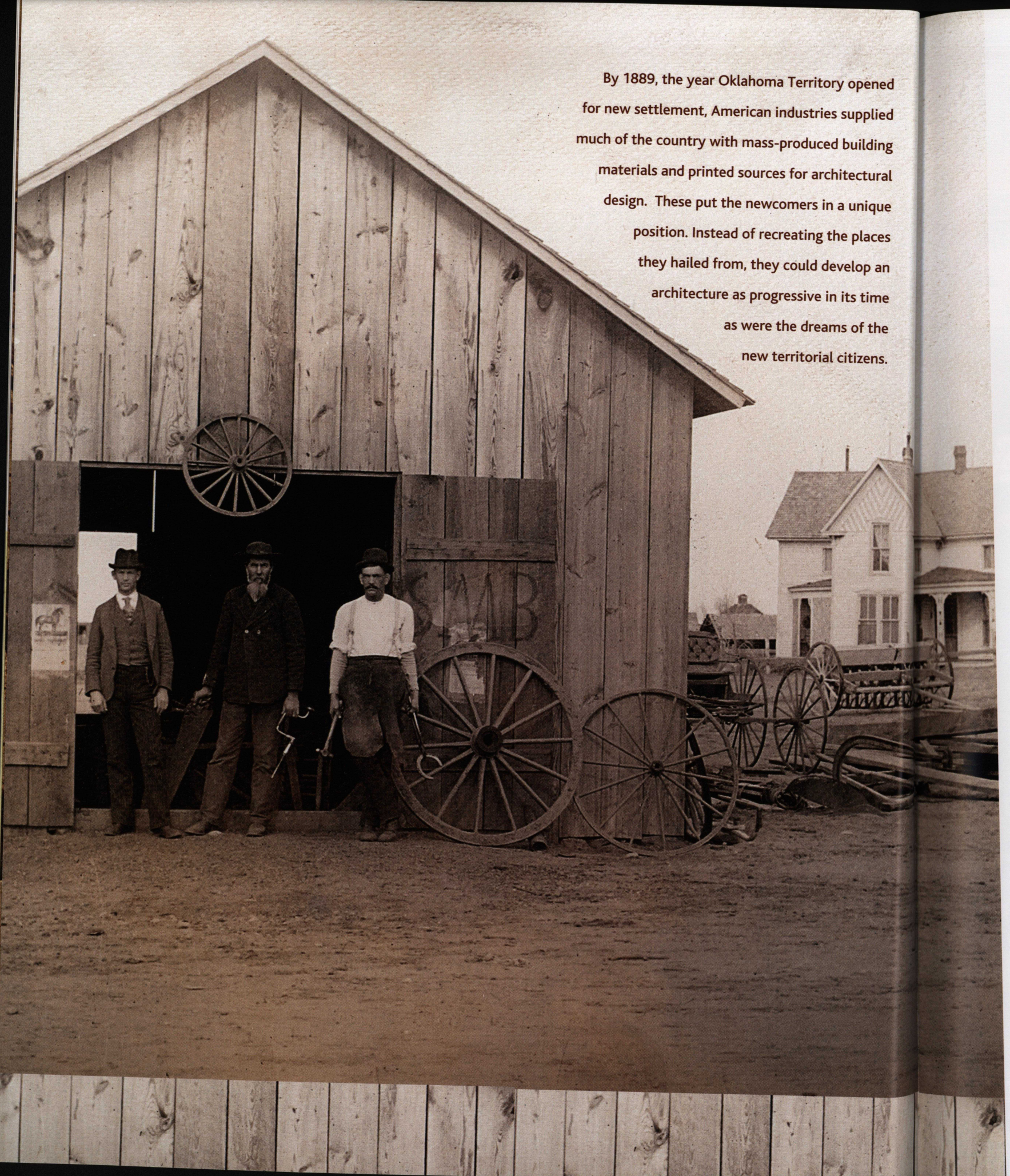
Vincas P. Steponaitis and
David T. Dockery
A Tale of Two Pipes
36

An archaeologist and a geologist join forces for this essay. Together they decipher the tale told by tiny fossils in the limestone used for carving ancient Indian tobacco pipes.

Eric Singleton
When Old Becomes New:
Recycling on the Great Plains
46

Humans have long repurposed, rearranged, and recycled component materials to make the things they need or desire. The Gilcrease collection contains surprising examples.

Photos: Page 1: "Wishham Girl" from *The North American Indian*, vol. 8, plate no. 278. Edward S. Curtis, 1935. GM7327.971.23. **Page 2, top:** Building the Land Office at Guthrie, April 15, 1889. GM4326.1607. **Page 2, bottom:** Plate 1, ground plan, Congregational Church Convention. A Book of Plans for Churches and Parsonages, New York. D. Burgess, 1853. **Page 3:** Womens Tomato Can Dance Rattles, Yuchi, Bristow, Oklahoma, 1997. GM84.2888a, b. **This page:** Guthrie. GM4326.1611.



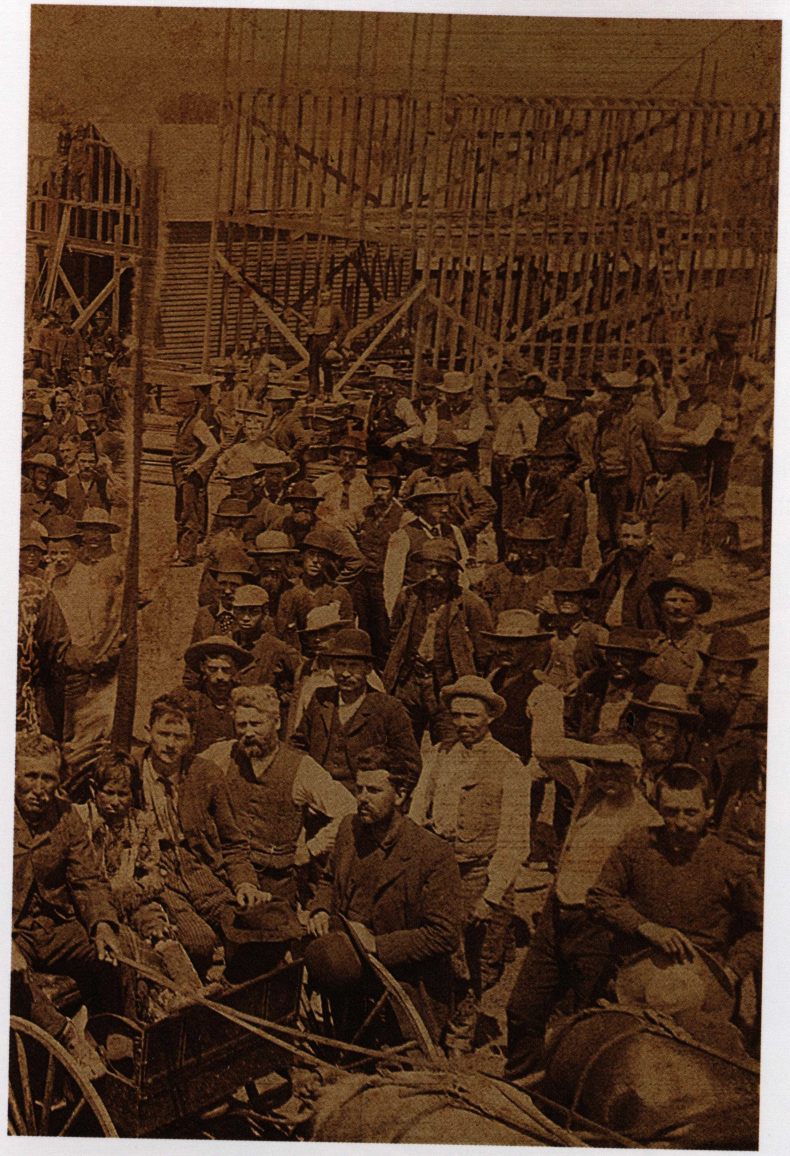
By 1889, the year Oklahoma Territory opened for new settlement, American industries supplied much of the country with mass-produced building materials and printed sources for architectural design. These put the newcomers in a unique position. Instead of recreating the places they hailed from, they could develop an architecture as progressive in its time as were the dreams of the new territorial citizens.



Machinery designed to produce building materials was developed before the Civil War, but the twenty-year period after the war witnessed the patenting of a great number of new methods to work wood and metal, as well as the development of new mills and factories. Vast forests east of the Mississippi had allowed the colonies to become wood-based societies. In the Northeast, it began with harvesting tall white pine for the masts of the English Navy fleet, and in the mid-Atlantic region and along the Appalachian Mountains timber was harvested for log structures. The water-powered sawmills that cut timber were replaced by steam-powered and then electric-powered machines that cut and planed useful lumber. As wood processing tools developed and transporation technology expanded in the mid-nineteenth century, wood production became an industry. Logs traveled by river to the mills, and the milled products were distributed first with sailing ships, then canal barges and local railroads.

New kinds of saws, planes, boring and sticking machines, and presses produced reliable goods, and new sources of power increased the outputs of machines.[1] Machines now fed the boards into the processing channels and controlled them as they passed through, performing multiple tasks with each pass, for example surfacing all four sides of a board at once. Self-feeding improved worker safety and higher production raised company income.

Herbert Gottfried, Ph.D.
is Professor Emeritus of Landscape Architecture at Cornell University.



In 1891, some plants such as the Palmer, Fuller, and Company in Chicago, had a daily production of 600 doors, 1,000 windows, and 250 pairs of blinds, including a large amount of odd work. The scope of territory over which the output was distributed is illustrated in a single day's output: in one day thirteen carloads of sash, doors, and blinds departed the factory, each bound for a different state or territory. The Palmer, Fuller facility was modern. It had a system of long sheds, all joined, so that a board entered the plant and remained "under cover" until it was finished and loaded into a rail car. Granting some exaggeration, if one multiplies only half the amount cited by the number of millwork shops in Chicago, the production level is significant. Including all the other shops that operated in the Northeast, along the Mississippi River, around the Great Lakes, and in the South and Northwest, woodwork production by the turn of the century was enormous. This industrial production underwrote the creation of Oklahoma's built environment.

Efficient machines increased outputs that created demand for shipping, which helped to extend networks of rail lines. The railroads brought everything to Oklahoma. Thus, when Oklahoma City's first settlers arrived, the Frisco Railroad had already delivered dimensioned lumber, machine-made nails, and related items at the city site. The settlers engaged sophisticated industrial systems and corresponding developments in building technology.[2] All of the states west of the Mississippi River had a similar opportunity.



Prior to the Civil War, the Oklahoma Territory was marked by a log building tradition, wherein a generation of Indian and white settlers built single-room or double-room cabins. A common type of double structure was the square-log house, or "dogtrot," with two rooms and a gable roof. The rooms were separated by an open space or trot, which was covered by the main roof.

Top left: Guthrie. GM4326.1611. Left: Boomers and Sooners. GM4326.3528.
Facing: Photos of Oklahoma City and Guthrie taken soon after the land run show quickly erected tents and wood buildings made with contemporary materials. GM4326.3504, GM4326.3525.







J. A. Madden Home. Oklahoma Historical Society. 34.24.

Facing: Interior scenes of the house model, Ramona C-705, produced by the Curtis Company with idealized installation of millwork products. 1920.

United States housing stock because it reinforced the commercialized popular culture of domesticity for a rapidly growing middle class.

A practical approach included all common buildings, including small churches, commercial stores, industrial shops, and barns. Millwork companies produced pews, altars, lecterns, church windows, even stained glass types, interior finish like beams and exposed trusses, casework for the display of merchandise and shelving for stores, and garage doors, barn doors, and barn windows for ventilation.

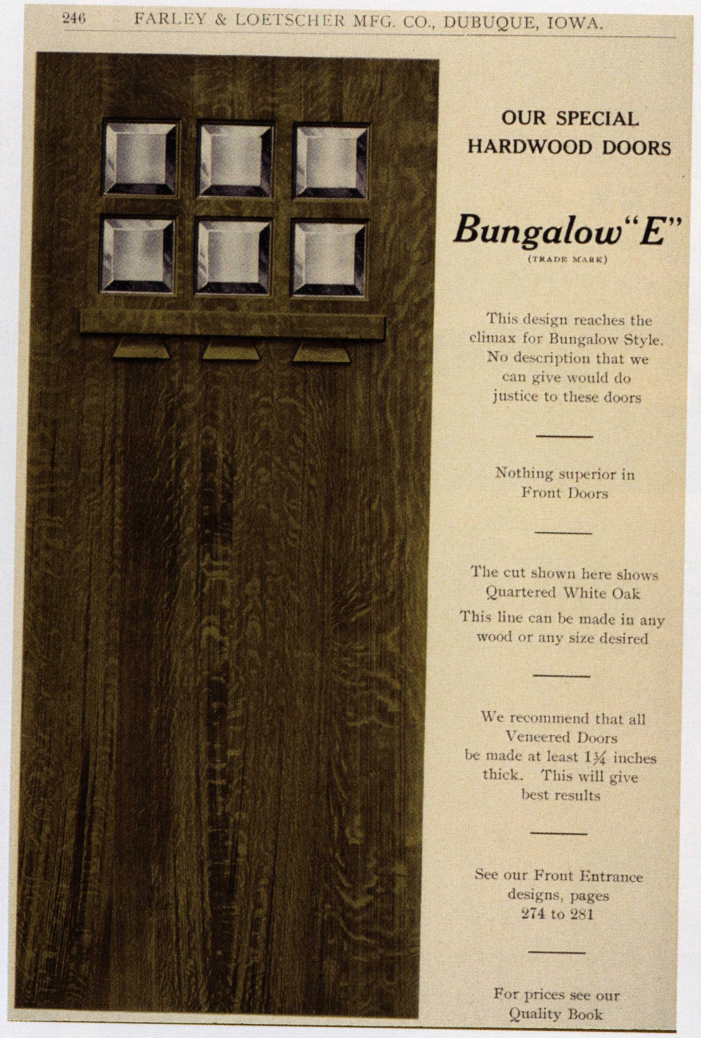
Most houses were built as speculative projects. Early on, builders were local and owner-builders were always part of the scene. Some Oklahoma settlers brought ideas, memories from home, mental images of buildings that they favored, or they brought copies of catalogues and plan books. Americans were open-minded in these moments because they were open to new things. They learned they could modify an existing style or treatment over time, and they went for new technology as it appeared, such as indoor plumbing, lighting systems, and central heating.

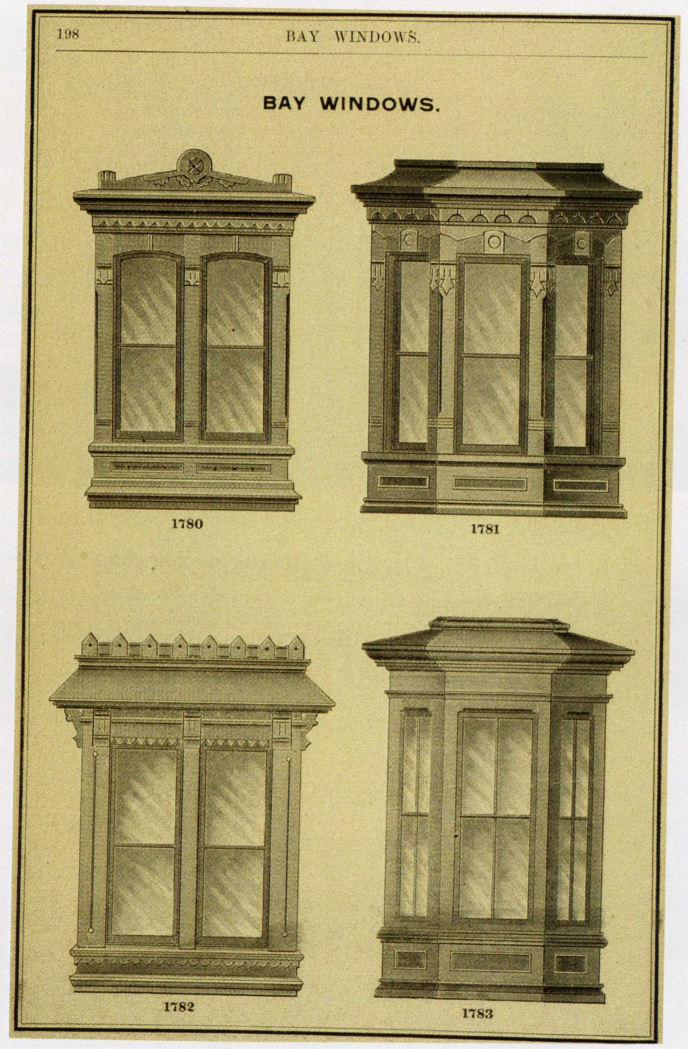
The cultural practice of copying or imitating pictures, which included measured drawings, can be thought of as "building the picture." It is a practice that never passed out of fashion. Millwork companies, like Curtis in Iowa, included scenes in their catalogues that illustrated the use of their materials in what they thought were acceptable aesthetic standards. Hints about furniture, window treatments, floor coverings, and other furnishings were embedded in the pictures and suggested a way of life.



Builders got ideas from these pattern books and trade catalogues that illustrated designs for specific rooms, like a kitchen or dining room. Buildings were often not designed for a specific building site. They could be adjusted to a site. Some forms fit certain classes of sites, for example, houses especially suited for narrow lots, such as row houses or so-called shotgun houses on town lots. Plans could be flipped to accommodate the environment or a buyer, and a single plan could have several different exterior style treatments, creating the impression that individual buildings were unique. Prairie and plains states developed varieties of single-story cottages suitable for towns as well as farms.

The American cottage became its own unique type, with several variations. In general, cottages have free-form plans and shapes and complex roof plans, because rooms connect to each other in vigorous ways from a central core. On the exterior there are ornamental details and contrasting materials (rough shingles set against smooth boards, or rock-faced stones against smooth bricks). While the one-story model was widely dispersed in the prairie-plains region, two-story versions appeared nationwide. The cottage lent itself to styling, but late-nineteenth-century cottages also promoted

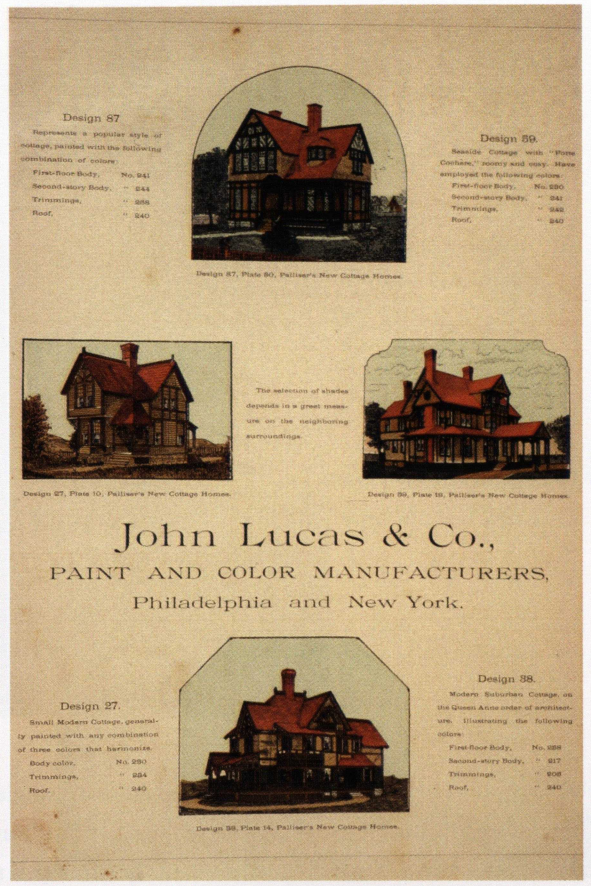




Farley & Loetscher Mfg. Co. General Catalog No. 9. 1912; Joseph Hafner Mfg. Co. Book of Sash, Doors and Blinds. 1891.







free circulation among rooms, which led to the open plans of the twentieth century. If you walked around the outside of a nineteenth-century cottage, you would note that each elevation had a different composition, even variations in materials and ornamentation that were accented by paint choices. Eventually, however, early in the twentieth century the cottage lost irregularity in favor of simplified schemes.

While the cottage underwent extensive development in the nineteenth century, the bungalow—the term "bungalow" has East Indian roots—was introduced into American culture in the first decade of the twentieth century in California. The bungalow façade encouraged variations, and the bungalow contributed to the evolution of open plan. As such, the bungalow deserves credit for inculcating modern sensibility, particularly modern perception of open interiors and the continuity between inside and outside space. The bungalow has received mixed reviews in terms of its original intent to provide low-cost housing for middle-class families. Although it turned out to be more expensive to build than predicted, it delivered modern amenities within modest square footages and an attractive appearance. Although their introduction was in California, they are a dominant single-family type house in Oklahoma City and Tulsa.



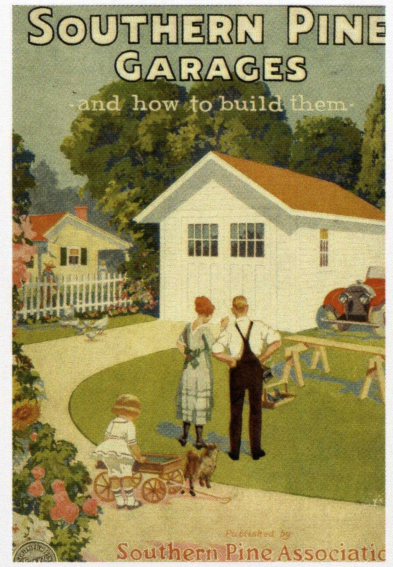
Simple cottages (from top to bottom) in Oklahoma City, Stillwater, and Sapulpa; John Lucas & Co.'s paint catalogue shows illustrations of cottage designs.



Double house with a single entrance. Jefferson Park, Oklahoma City.

In addition to single houses, small multifamily buildings have also been part of the vernacular tradition from 1870 to the present. Because of increases in land values, multifamily structures moved toward large-scale apartment buildings and away from the four- and six-unit types in most cities. Through their development, multifamily buildings were consistently an integral part of neighborhoods, of working-class housing districts, and of commercial districts. They were especially successful in creating the illusion of the single-family residence on the inside as well as the outside.

The mass-produced house was another form of building seen in Oklahoma and elsewhere. The kind of structures referred to are the houses that the Iowa Railroad Land Company advertised in its Iowa Farming Lands brochure of 1870. The company operated out of Cedar Rapids and sold "ready-made" houses of all sizes manufactured by Major Lyman Bridges of Chicago. Prices for such buildings included all materials and finish goods, and packaged houses were shipped by rail to the station closest to the buyer. Such activity was not new. People in down east Maine remember stories about houses being built, then taken apart, numbered and lettered, shipped on three-master schooners around Cape Horn to northern California. But for the rest of the country, the railroad was the real key to the distribution of vernacular goods. It was the railroad that permitted the popularly known companies like Sears, Roebuck, Montgomery Ward and the Aladdin Company to build prefabricated houses and ship them across the country. Records of a Sears house, model #16052, built in upstate New York in 1926, indicate materials were shipped from mills—in Newark, New Jersey; Philadelphia, Pennsylvania; and Dunkirk, New York. A carpenter assembled elements manufactured at different locations. In the design of industrially produced houses, companies used common elements and forms, because these manufacturers, whether selling single buildings or entire towns (company towns), designed within a given vernacular tradition.



Southern Pine Garages and how to build them. 1926. With the explosion of automotive technology early in the twentieth century, stand-alone garages were added to building lots. The garage migrated from the back of the lot, then became attached to the house, and finally integrated into the house.

A DRIVE THROUGH OKLAHOMA TODAY reveals the architectural history of the nineteenth and twentieth centuries. Homes, schools, churches, and shops in towns and cities speak to us through their sheer quantity, their materials, and their patterns. In a broader sense, they were made possible by a national industry that managed to satisfy social, economic, and cultural needs with industrially produced materials and a growing inventory of building types. In a more specific and human sense, they suggest the mindset of a purposefully relocated settler starting fresh in a new place.

When settlers pushed into Oklahoma Territory in 1889 as national building culture was emerging, they had the unusual opportunity to install that culture and its construction system upon initial occupancy of their building sites and settlements. As such they were progressive, and by expressing themselves through modern materials, technology and building types, they were part of, we might say, a truly American architectural moment.

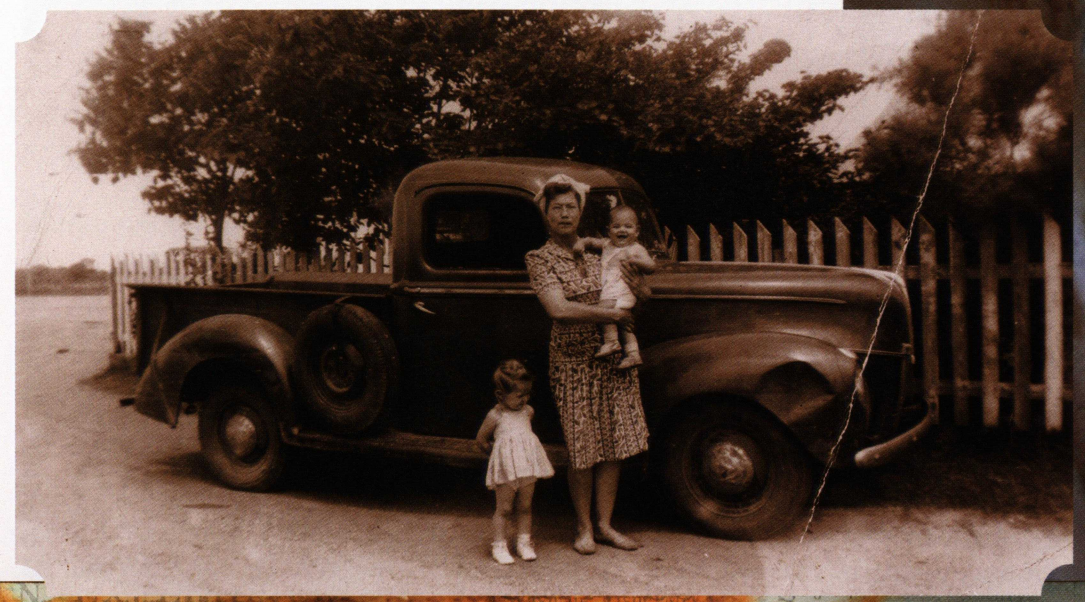


Aladdin Homes plan book. Publications popularizing design included trade magazines that served producers, studies of current trends in design, manufacturers' in-house publications, and government periodicals and bulletins. Many companies included glossaries in their issues so that trade terms, often not traditional terms, became part of the language of construction. Some catalogues were prescriptive (to achieve a certain effect, one ought to use this or that product), but most had free-market sensibilities. The manufacturer included a few examples for inspiration in creating the family's "ideal home."

NOTES

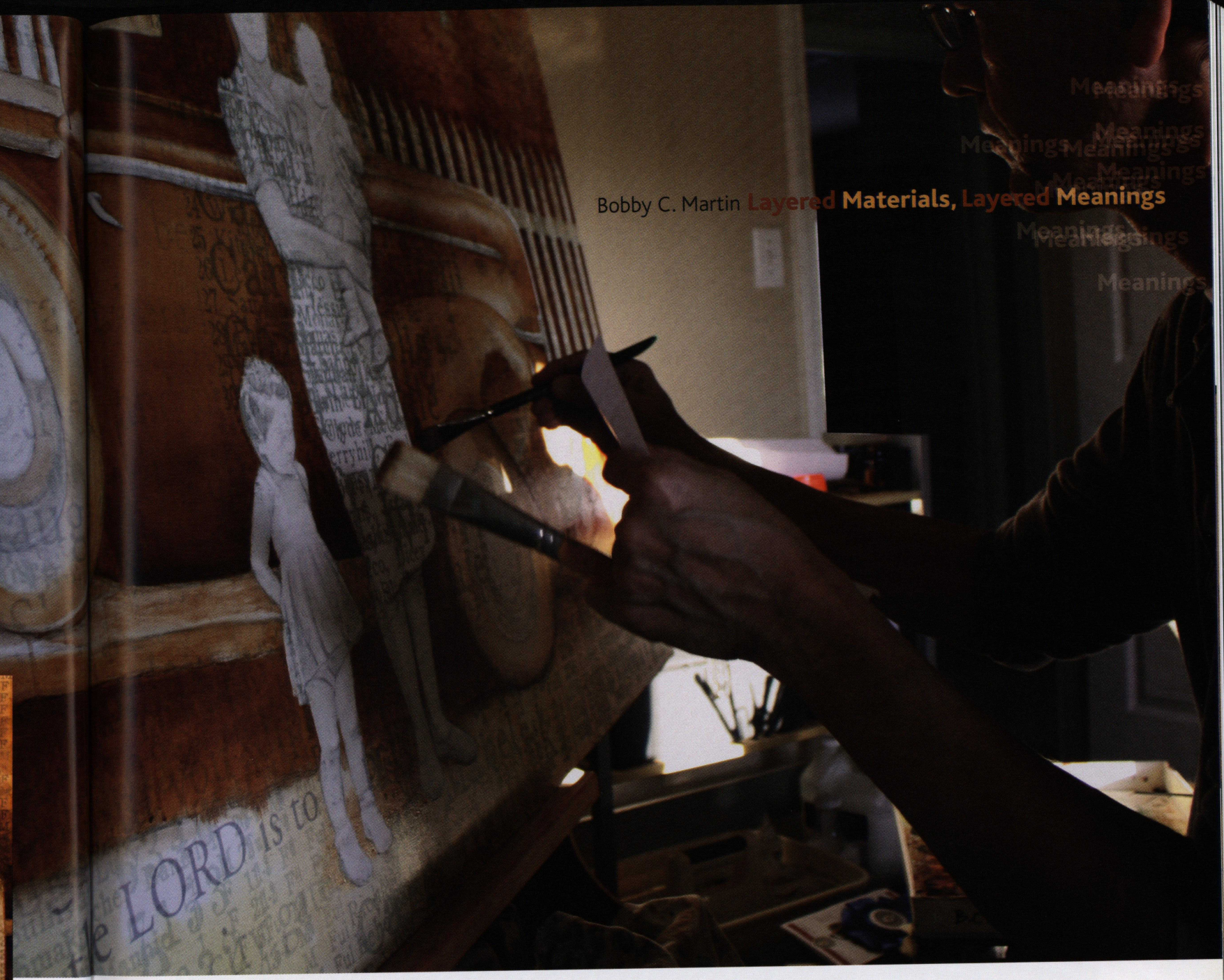
1 For an overview of the impact of manufacturing on the North American house, Michael J. Doucet and John C. Weaver, "Material Culture and the North American House: The Era of the Common Man," *The Journal of American History,* 72, No. 3 (December 1985): 560–87.

2 Herbert Gottfried and Jan Jennings, *American Vernacular Buildings and Interiors, 1870–1960* (New York: W. W. Norton, 2009).





Top: Ruby Williams with grandchildren Patricia and Dean Williams, family photograph. Immediately above and in process, facing: *Ruby and the Grandbabies*, oil on panel, 42 x 78 inches.

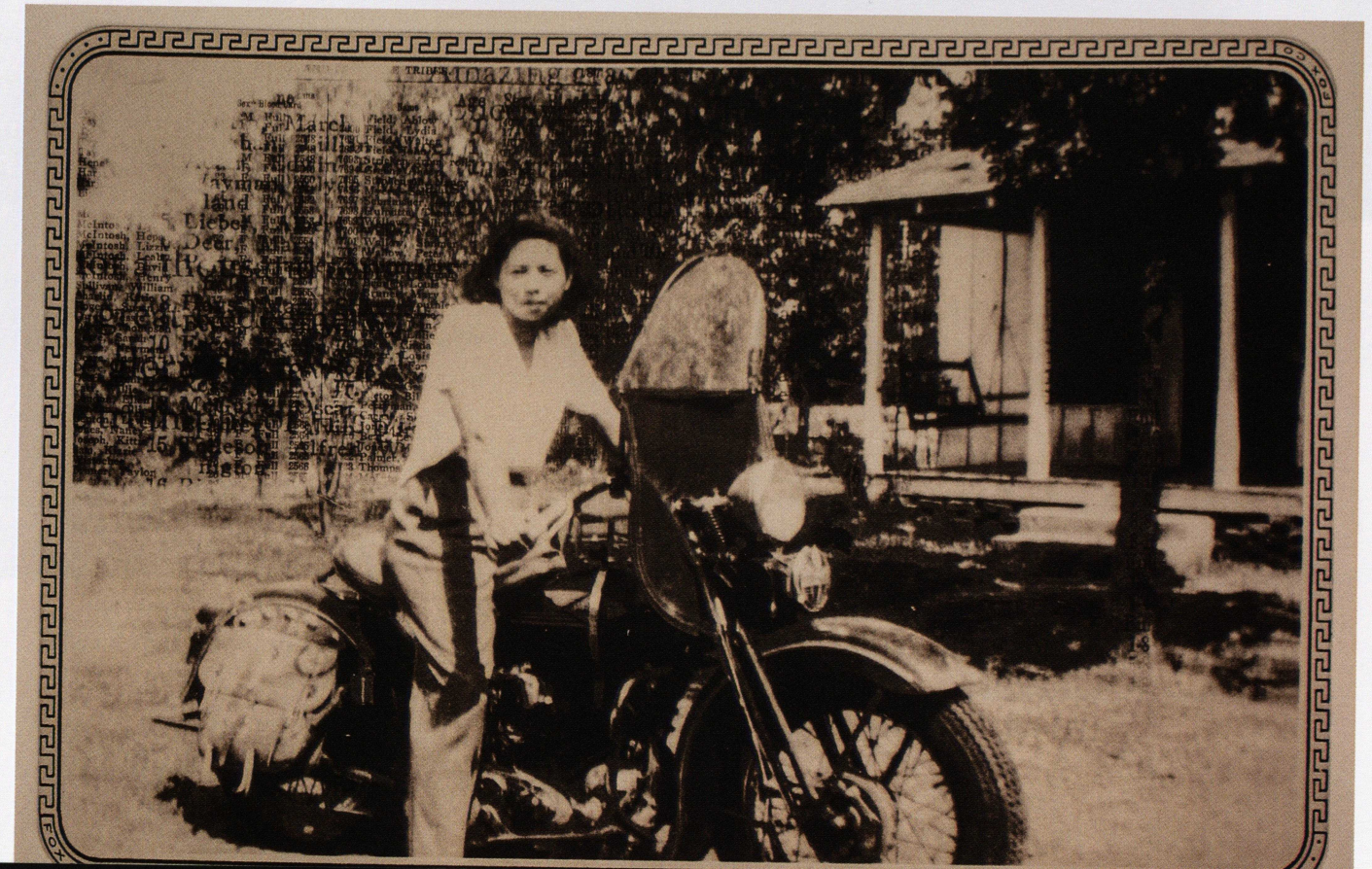

Meanings
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Meanings

Bobby C. Martin is an artist and Associate Professor of Visual Arts at John Brown University in Siloam Springs, Arkansas.

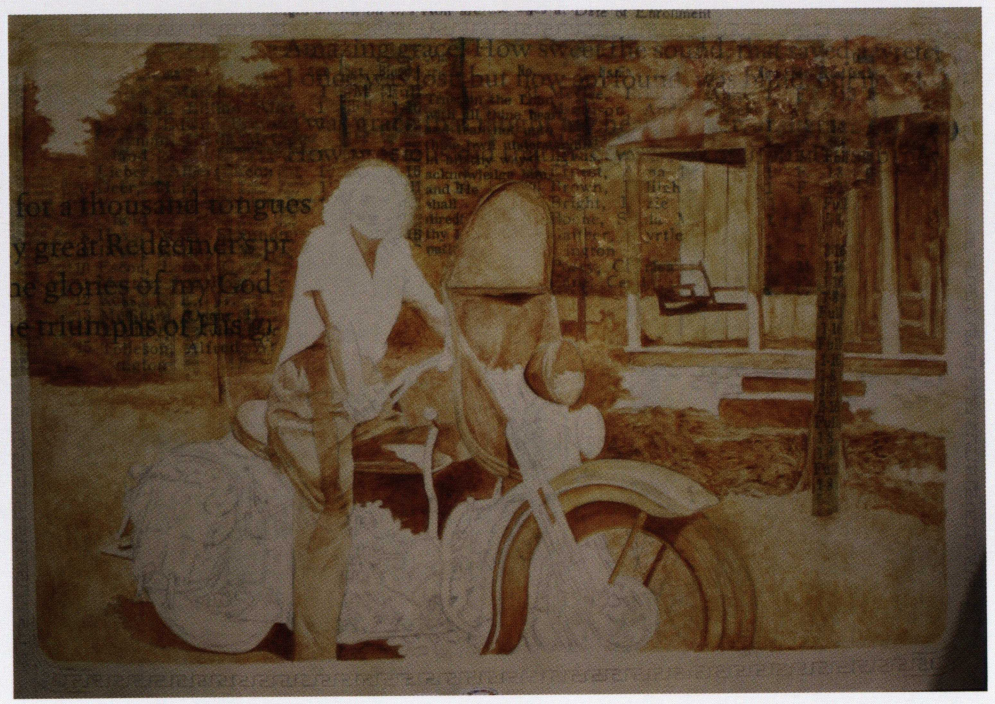
THE IMPORTANCE OF MATERIAL BEGINS with the choice of subject matter. Old family photographs passed down from my fullblood Muscogee (Creek) grandmother, my mother, and my aunts and cousins provide a nearly endless supply of resources for my artwork. At almost every family get-together, a cousin shows up with a new batch of photos found in a shoebox in a closet, or in the tattered black pages of an old leather-bound photo album. These images of close kinfolk and distant relatives have become icons for me, symbols of a Native American identity that is not seen as "traditional," but is just as valid and vital to me—a tradition of Indian Christianity and mission schools that has been a part of my family history for generations. The images provide a connection with my past, a way to remember and honor the generations that have come before—a way to commemorate our unique family heritage.



Right: Aunt Inez (Herron) Guinn on an Indian motorcycle, family photograph. Below: *Indian on an Indian #4,* etching (artist proof), 14 x 18 inches.



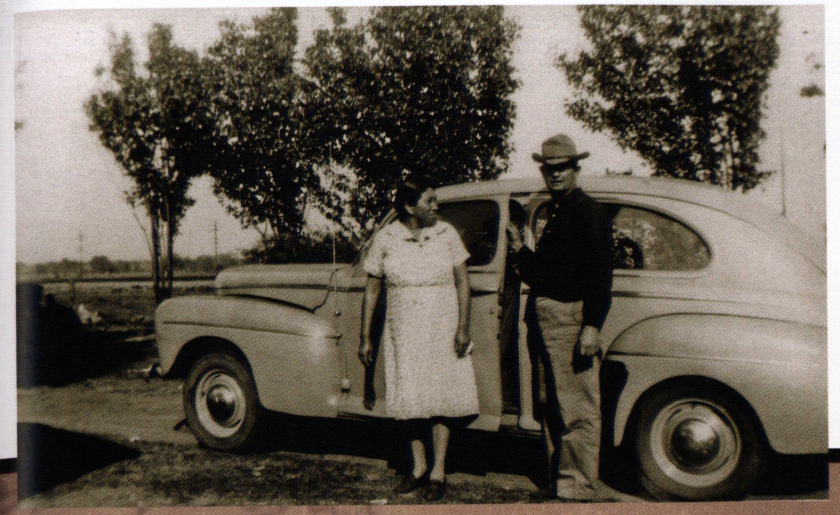




Indian on an Indian, oil, encaustic and collage on panel, finished work (top) and work in progress (left). 48 x 60 inches. Collection of the Sam Noble Museum of Natural History.









Above, from left: *Mom and Mary Ann (the Redhead),* oil on canvas, 48 x 72 inches; R.W. and Mabel (Carr) Herron, family photograph; R.W. and Mabel (Carr) Herron, family photograph; *Granny & Pa,* oil on canvas, 36 x4 8 inches. Dr. J.W. Wiggins Native American Art Collection, Sequoyah National Research Center at the University of Arkansas.

Facing: *The Kiss,* encaustic, collage, oilstick and oil on panel, 7 x 10 inches.

While the photographs have very personal meanings for me as the artist, I have also come to realize that there is an almost universal recognition of a sense of history and identity among the viewers of my work, evoking memories of their own family's past. Countless times as I discuss my work with a collector or even the most casual observer, I have found myself listening to a passionate retelling of a family story that they were reminded of, or a favorite grandma that looks just like the person in my painting. It has also led to many conversations about the preservation of historic archival photos and documents, and hopefully spurred some people to look into their own family heritage. This common ground of family memory has been a wonderfully satisfying byproduct of the choice of subject matter that I never expected when I began using these images.

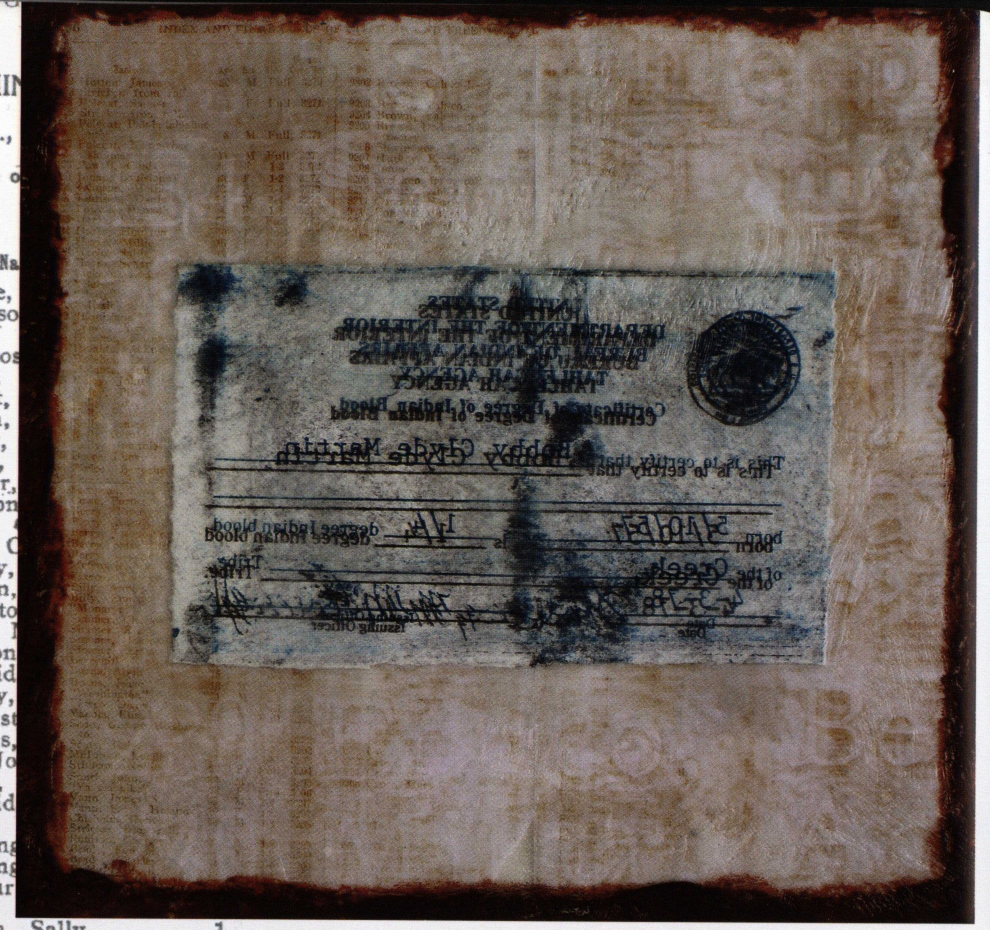
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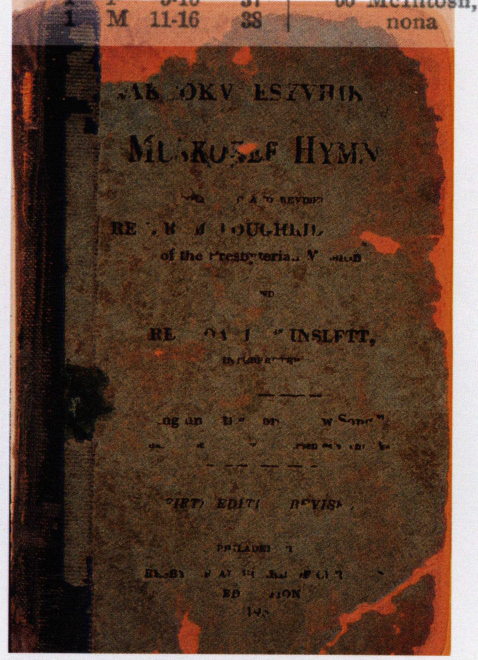
FINAL ROLL CREEKS BY BLOOD—MIN

Act of April 26, 1906. (34 Stat. L.,

Ages shown on this Roll are the ages at Date o

Name	Age	Sex	Blood	Census Card No	No.	Na
ı, March	1	M	Full	1	31	McGee,
an, Lillian Alice	1	F	1-16	4	32	Morriso
Edwin Brewer	1	M	1-32	5		son
an, Clyde McCaus-					33	McIntos
	1	M	5-32	7	34	Lewis,
, Albert Leon	1	M	1-16	8	35	Ernest,
Mary	1	F	Full	10	36	Brown,
, James, Summer-					37	Bright,
	1	M	1-4	11	38	Boone,
Mary Shannon	1	F	1-16	14	39	Gaither,
Kathryn W.	1	F	1-32	15		ington
Leona G.	1	F	5-16	16	40	Posey,
ı, Joe Ross	1	M	1-4	17	41	Cane,
J. E., Jr.	1	M	1-4	18	42	Bewley,
ire, Oscar H.	1	M	1-8	19	43	Clinton,
y, Calvin Durant	1	M	1-32	20	44	Whetsto
on, Alfred Wash-					45	Cowe,
on	1	M	1-8	21	46	Harmon
d, Velva	1	F	1-2	22	47	Hardrid
, Noah	1	M	Full	23	48	Aubrey,
n, Henry	1	M	Full	24	49	Depriest
Georgie	1	F	1-16	25	50	Phillips,
n, Samuel	1	M	1-2	26	51	Day, Jo
John Henry	1	M	1-16	28	52	Fisher,
Ruth Lucile	1	F	1-8	29	53	Hardrid
on, Hazel Vivian	1	F	1-16	30	54	Doyle,
rs, Grace	1	F	1-8	31	55	Washing
Edna Bettie	1	F	3-8	33	56	Washing
Micco	1	M	Full	34	57	Sulphur
on, Jessie D.	1	F	1-8	35	58	Cosar,
Thomas, Jr.	1	M	1-16	36	59	Hutton, Sally 1
tt, Fanny	1	F	5-16	37	60	McIntosh, Wanda Wy- 1
on, Tully	1	M	11-16	38		nona





Above: Creek tribal rolls and Granny's hymnbook. Upper right: *Self-Portrait (Ode to Jasper Johns)*, encaustic and collage on canvas, 12 x 12 inches.

There is other material that routinely shows up in my work—textual material that weaves and layers itself into the photographic imagery. This material began creeping into my work a year or two after I began working with the old photos. I was seeking a way to explore my identity as a mixed-blood Native artist, one with no personal connection to any Indian artistic tradition. Here I sat with all these wonderfully candid historic snapshots of Native people, and it suddenly occurred to me: this is my identity! Around this same time I stumbled across two items that altered my perception of my own Native identity. One was an old copy of the Dawes Commission Index and Final Rolls for the Creek and Seminole Tribes in Indian Territory—the so-called "Dawes Rolls"—which listed my great-grandfather and grandmother, and other relatives, as original allottees.

The other was a tattered pocket-sized hymnbook in the Muskokee language that belonged to my grandmother. Her handwritten notes and Scripture references were scattered throughout the margins of the little book.

The humanity of the photos and the hymnbook seemed polar opposites of the stiff, official lists of names and numbers contained in the Dawes census book. On the one hand you had real Indian people captured in the midst of real Indian lives; on the other hand you had the official government definition of Indian identity in stark black and white. An identity, by the way, that even today still determines who can and cannot be considered eligible for many tribal benefits like health care, housing and educational scholarships. I began to layer the roll lists into my paintings and printmaking,







Above: *Aunt Kate*, 3-color screenprint, 16 x 22 inches. Upper right: Uncle Cole at the Williams General Store in Onapa, Oklahoma, family photograph. Right: *Aunt Kate McCombs*, etching (artist proof), 12 x 16 inches.



Apr • 55, acrylic and graphite on canvas. GM0127.2503

as a way to bring into question what it meant to me to be Native, and by extension, who gets to decide the identity of any person. At the same time I also began to layer in other textual material, words from my Granny's hymnbook and passages from Scripture in Muskokee and English. As a Christian, it was (and is) important for me to remember that ultimately my identity is contained in Christ Himself, and these words are reminders of that reality.

SO THAT IS HOW THE LAYERING OF WORDS BEGAN: a way to inject a deeper meaning into the images, rather than allowing them to be merely photorealist copies of old photos. From a compositional standpoint, the textual layers also created textures and patterns—visual interest that, whether it was understood or even readable to the viewer, added to the conversation when looking at the work. And twenty years on, I find myself still drawn to layering letters, words and sentences onto canvas or paper or steel in an ongoing effort to engage viewers in a visual conversation about family and identity.

Left: *Homecoming Royalty,* etching (artist proof), 16 x 16 inches.
Right: *Homecoming Royalty*, oil on canvas, 24 x 24 inches, private collection.









Above: Screen capture for *Fish Fry,* work in progress. Right: *Fish Fry,* etching, 14 x 20 inches.

Even though I have long been drawn to the layering of materials, there have been some major shifts in direction over the years when it comes to the actual business of layering. After I began experimenting with the addition of text into my work, and began to see what a powerful voice it could carry, I sought out all sorts of ways to actually transfer the words and symbols onto paper and canvas. In the early days, I tried hand-lettering the words into the work, which is seen in *Apr • 55* on display in the Gilcrease galleries, but I had neither the patience or skill to continue that route. I used multiple different transfer techniques, usually involving some sort of toxic chemical—effective but not very healthy. It wasn't until my last year of graduate school in 1995 that I stumbled into a computer lab and onto the tools that make up my go-to technique ever since: a scanner, a Mac computer, and Adobe Photoshop.

While this gear is common today, way back in the electronic stone age of the 1990s it was new territory for artists. It was an epiphany for me not only to be able to scan my old photos and pages of hymn books and Dawes rolls, but to be able to digitally layer the content. I discovered I could move individual elements around all I wanted until I was satisfied with a composition. The text retained the look of an aged printed page and not a hand-lettered approximation. Scale and proportion could be endlessly manipulated. This process made sense to me metaphorically as well, with each image, name or Scripture passage representing a layer of time. By arranging material containing varying degrees of digital translucency like the layers of onion skin, I was suddenly able to visualize the past and suggest new meanings. The very act of layering became, in a concrete and visceral sense, a way to communicate ideas in my work that I hadn't been able to express fully before.



Inez, etching and aquatint, 7 x 10 inches. GM1427.837.

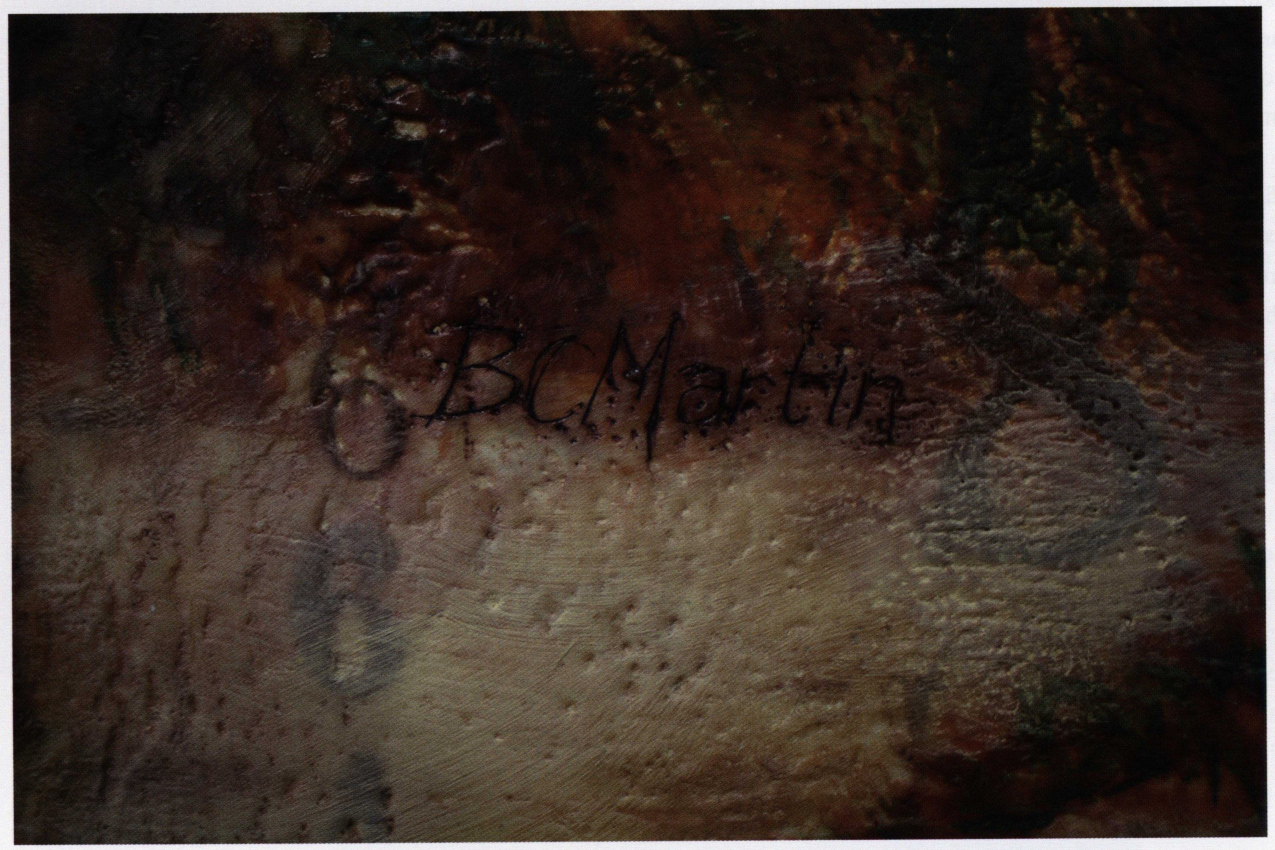
This epiphany, however, eventually led me into a direction I hadn't expected. The more I continued to explore this new-found digital world and the artistic freedom it seemed to offer, the deeper I was drawn into the world of virtual layers and the further away I strayed from traditional materials of canvas, paper and paint. After a few years, I found my work remained completely in the computer, with what I called "digital collages" becoming the only art I was producing. At that time, there was not much acceptance of digital art, so for the next decade I almost entirely dropped out of the "fine art" world of galleries and art shows, content to tweak around with pixels trying to find ways to get my creations off the screen and onto an actual surface. But this process, while satisfying for a while, ultimately didn't provide the same kind of deep satisfaction that applying paint and ink to canvas or paper gave. Trained as a printmaker and painter, I craved to get my hands dirty again. Thankfully, at that time

circumstances in my life allowed me the opportunity to fulfill two big artistic dreams: to move into a large studio space and to be able to outfit it with a large etching press. My digital detour did have one major lasting influence on my working methods: I still rely heavily on my Mac and Photoshop for pre-production and composing almost all my work these days. I am hooked on the ability to manipulate layers, and then bring those layers into a physical form that can be seen and felt. I love the ability to combine the new-school power of digital imaging with old-school hand processes to print, paint or build the work.

Ultimately, it's the reward of building up of something by hand, of seeing the work turn into something more than an accumulation of layers of paint or wax, that makes working this way so satisfying. Just like the dated yet timeless images of my ancestors in the photos, the process itself creates, for me, a sense of the passage of time. In some unexplainable way, I am brought closer to these people that are a part of my heritage and identity. These images are my lifeline to a past and a history that I didn't discover until well into adulthood, things we rarely spoke about, but that I now realize are a source of inspiration and pride for our family. And while it may be possible for the viewer to peel back or peer around the layers to reveal multiple shades of meaning, it's just as possible to look at these works and be reminded of their favorite aunt or Granny's old Ford truck. When they see my work, I hope viewers are reminded of the enduring importance of family and identity. My hope is for my art to become like old family photographs themselves—perhaps cherished, perhaps stuffed in a box in the attic—but always able to evoke memories every time they are viewed.

R.W. and David (Sonny) Herron, family photograph.





Encaustic: An Ancient Art of Layering

Encaustic is an ancient technique dating back to the Egyptian Fayum portraits—amazingly lifelike faces painted onto sarcophagi over 2,000 years ago. The American pop painter Jasper Johns is probably the foremost practitioner of encaustic today, and the art form is undergoing a renaissance of interest among professional and hobbyist artists. It caught my attention when I got the opportunity to view one of Jasper Johns's Flag paintings up close, and noticed all the newspaper clippings and other bits and pieces that were trapped within the wax surface. Layers!

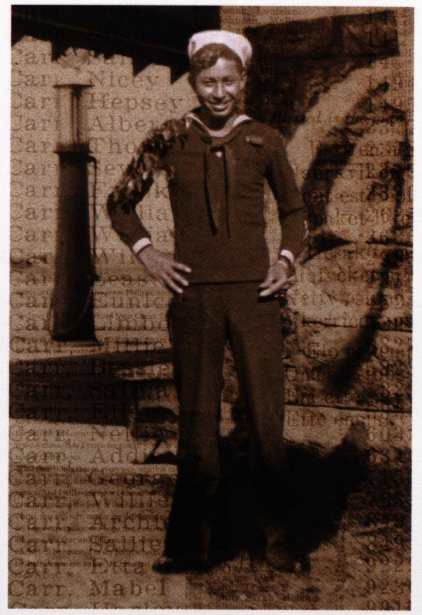
The technique basically consists of working with a beeswax /resin/ pigment mixture that's heated to a liquid state, then applied to a surface by pouring, dripping, or brushing. What is so interesting to me is how the physical act of applying, embedding and painting in beeswax creates a visual history made up of actual layers—and within this yellowed, translucent accumulation of layers is a sense of time suspended.

My process starts with a digital sketch, which I use to plan out placement for all the various layers and pieces of the composition. After drawing a reference outline on the gessoed Masonite surface, I put down the first layer—for *Uncle David (Killed in Action,* 1944), an assortment of names, numbers and Scripture passages that is screenprinted with multiple screens. Then the first layer of encaustic medium (transparent wax with no pigment) goes down, applied with a brush from my very low-tech setup (ordinary griddles and a Crockpot to heat the wax). After each application of encaustic, I fuse the wax with a heat gun and then scrape the entire surface with a razor blade to smooth it for the next layer, which consists of blocking in values with sepia-toned encaustic. Painting with wax is a challenge—as soon as the brush leaves the hotplate, the material is hardening, so you have to work fast. After a few more alternating layers of medium and color, I add in more text (Scripture passages from a Muskokee-language New Testament) by embedding it in yet another layer of wax.





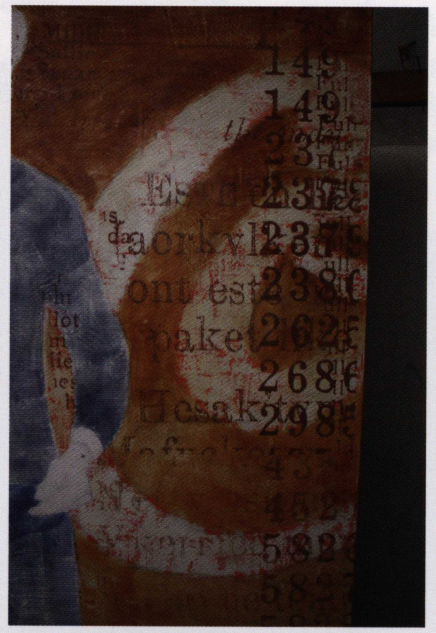


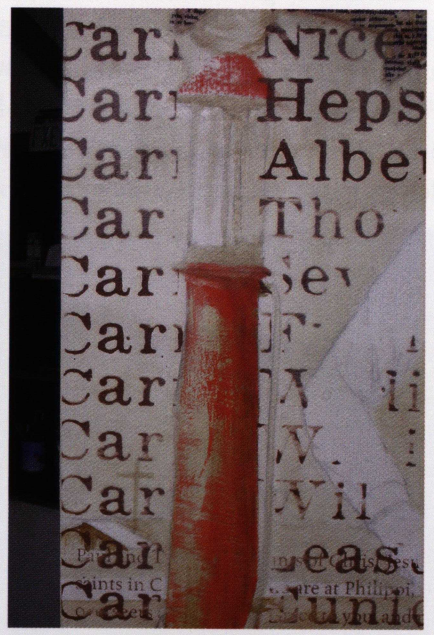


Sometimes in the process you have to remove layers as well as add them. One of the nice things about working with encaustic is the ability to scrape away the surface to reveal what's beneath, or to remove whole passages entirely. This came in handy when I painted the Coca-Cola logo in red, and then realized that it should be white on red. After multiple applications and removals of wax layers is complete, the final layering work begins. These final layers are made up of thin glazes of oil paint on top of the wax. This glazing technique adds the final depth and detail to the painting, while allowing the layers beneath to show through. *Uncle David (Killed in Action, 1944)* is the largest encaustic I've yet attempted: 48 x 72 inches, with Uncle David almost lifesize.

For me, this discovery of the ancient technique of encaustic has led to a wonderful transformation in my recent work. Through the physical act of manipulating layers, the connection between materials and meaning has become a vital part of my work. The very act of choosing and applying the substances themselves becomes part of the meaning of the work, and has lead to more personally satisfying results.

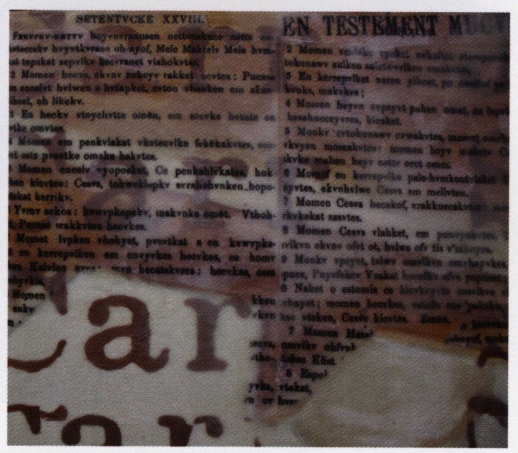






Facing and as a work in progress: *Uncle David, Killed in Action, Valentine's Day 1944,* oil, encaustic, collage and screenprint on panel, 48 x 72 inches.







Vincas P. Steponaitis and David T. Dockery

A Tale of Two Pipes



Vincas P. Steponaitis, Ph.D.
is Professor of Anthropology and Director of the Research Laboratories of Archaeology, University of North Carolina at Chapel Hill.

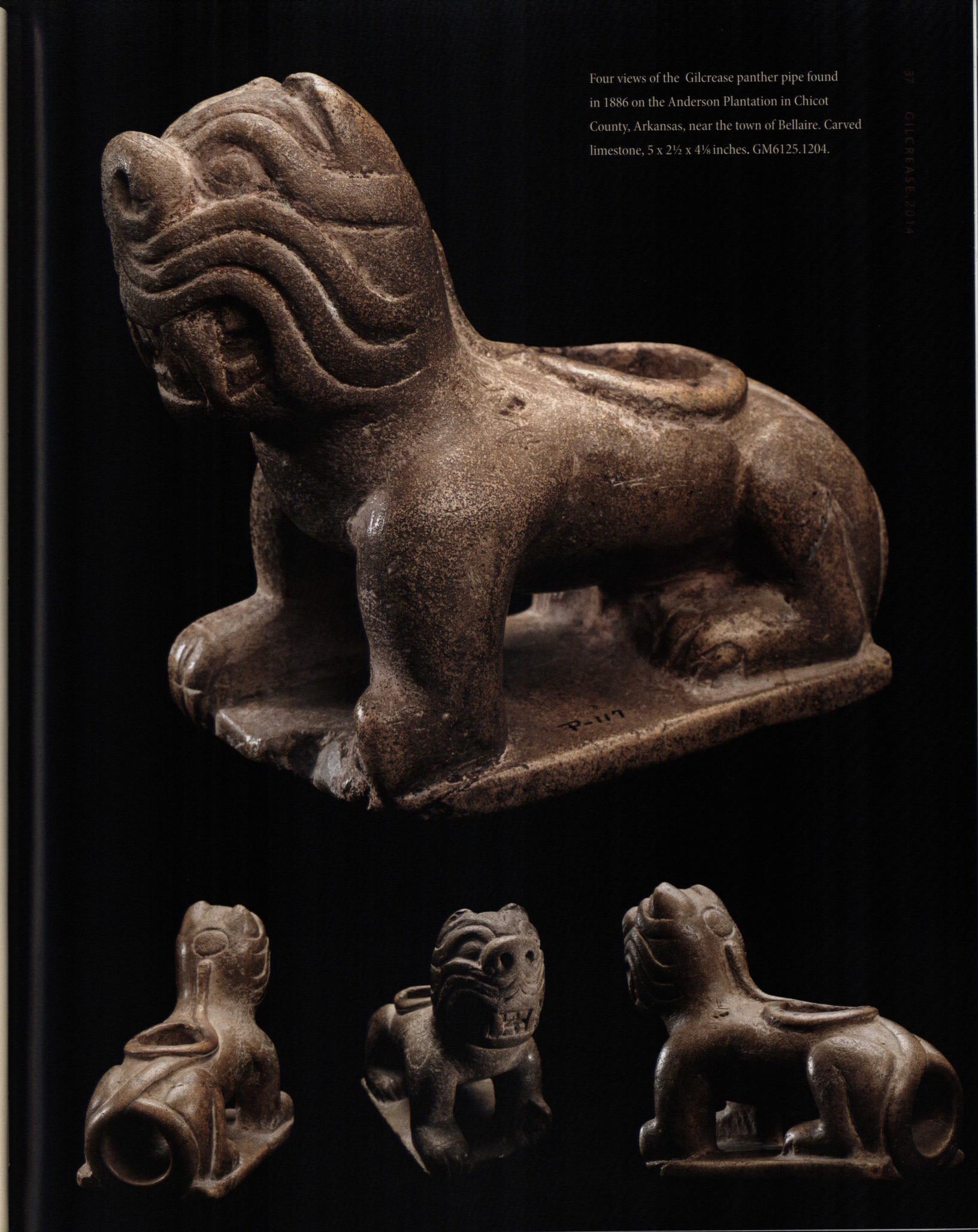
David T. Dockery III, Ph.D.
is Chief of the Surface Geology Division, Office of Geology, Mississippi Department of Environmental Quality.

The Mississippian people who lived in the American South during the centuries prior to European contact (ca. AD 1000–1600) produced an extraordinary corpus of art, much of it comprising representations of supernatural beings. Some of these beings took human shape; others took the form of animals—often snakes, cats, birds of prey (raptors), or composite beings that combined the characteristics of all three. Many of these beings are recognizable to us as the principal actors in traditional stories that were told by Indian people throughout the Eastern Woodlands and Great Plains, and are still told by tribal elders today.

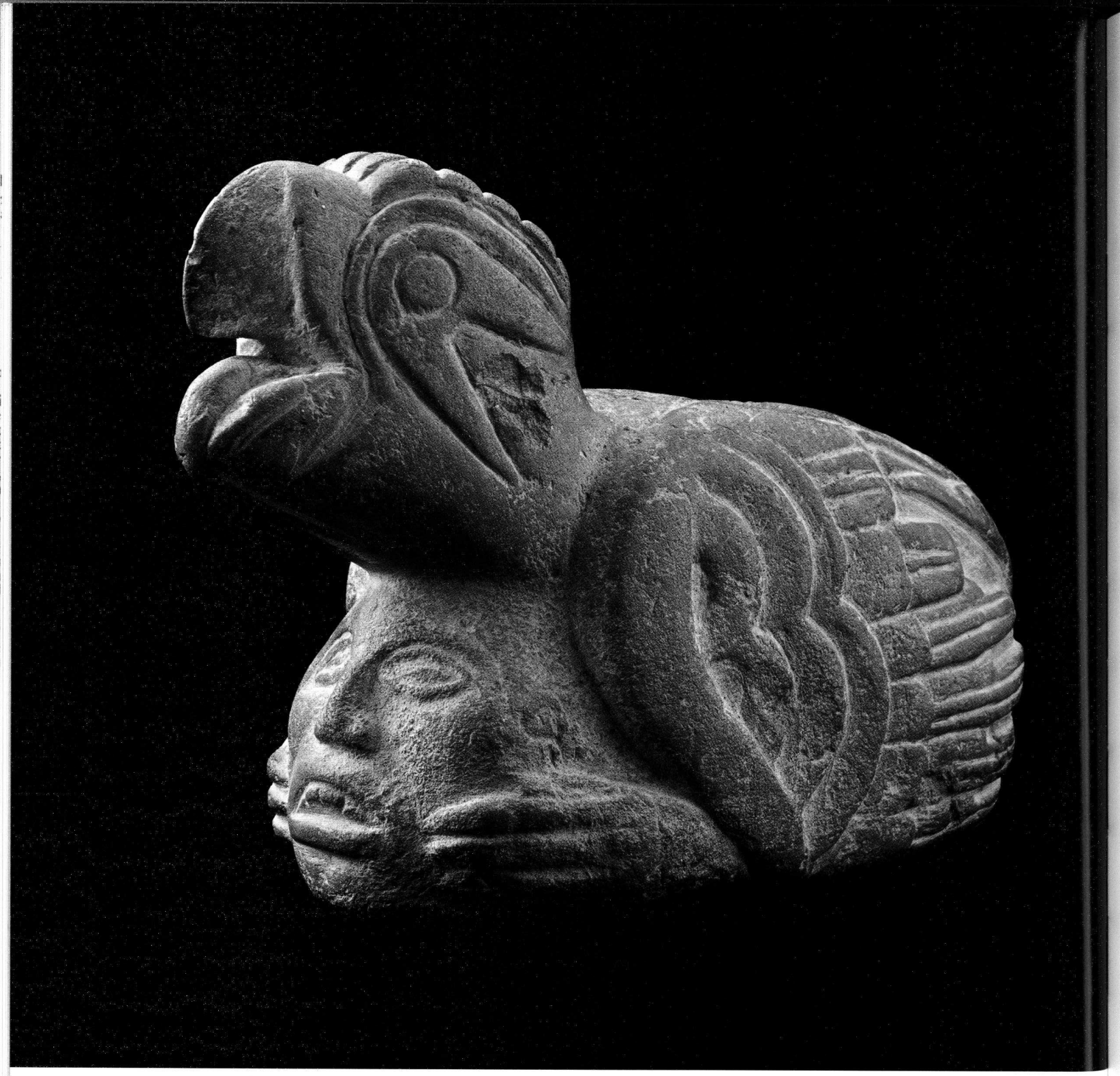
Among the finest examples of the genre are two effigy pipes in the Gilcrease Museum's collection, which were obtained in the 1960s from Judge Harry Lemley of Hope, Arkansas. One depicts a raptor holding a human head and the other a crouching feline with its teeth bared. Both are made from limestone, clearly the work of master carvers. And both are examples of the so-called Bellaire style, which is native to the lower Mississippi Valley, and dates ca. AD 1100–1500 (Steponaitis et al. 2009; cf. Brain and Phillips 1996: 384-386). Pipes of this kind were used to smoke tobacco, probably *Nicotiana rustica,* a powerful hallucinogen known to Native peoples throughout the Americas. The rarity of such pipes and their extraordinary workmanship suggest they were not everyday objects. Rather, we believe they were employed in ceremonies by priests or healers, who knew how to elicit their spiritual power.

In line with this issue's theme of "Meaning in Materials," here we show how a detailed examination of the pipes' raw materials yields clues as to where the limestones were obtained, which in turn allows us to reconstruct the directions and distances over which these materials and the finished pipes moved. Each of the Gilcrease pipes tells a different story. The raptor pipe was carved in the lower Mississippi Valley from a local limestone. The panther pipe, on the other hand, was probably carved in the same region but from rock obtained at a distant source. Once finished, both pipes were carried to places far from where they were made. Clearly each of these objects had a complex and distinctive "life history" which can be reconstructed archaeologically, at least in part. But before we explain in more detail how these histories were deduced, we must first provide some background on the artistic tradition to which these pipes belong and the methods we used to determine their geological sources.

AS MORE AND MORE EXAMPLES OF MISSISSIPPIAN ART CAME INTO VIEW in the late nineteenth and early twentieth centuries, archaeologists were struck by the remarkable similarity these objects showed over long distances. For example, decorated copper plates found in eastern Oklahoma were virtually identical to coppers found in Tennessee, Alabama, Georgia, and Florida. At first, archaeologists interpreted these similarities as the manifestation of a unitary art style—the so-called "Southeastern Ceremonial Complex"—that spanned the American South after AD 1000 (Waring



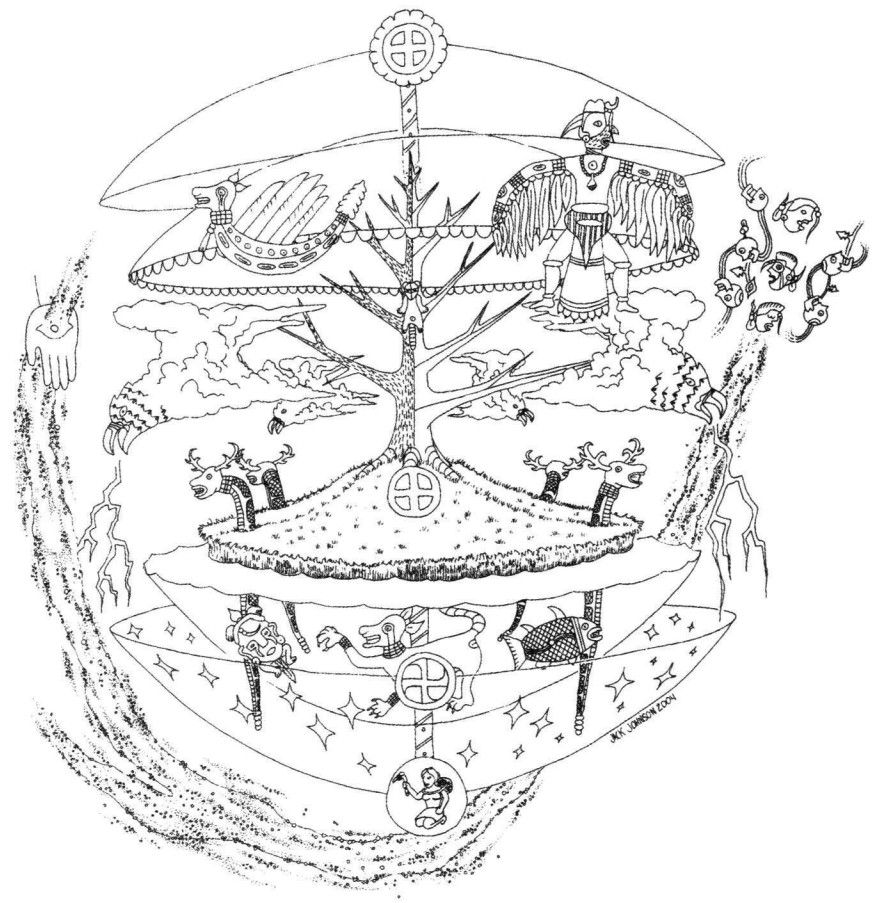
Four views of the Gilcrease panther pipe found in 1886 on the Anderson Plantation in Chicot County, Arkansas, near the town of Bellaire. Carved limestone, 5 x 2½ x 4⅛ inches. GM6125.1204.



The Gilcrease raptor pipe found in 1917 on the Esperanza Plantation in Issaquena County, Mississippi, just south of the community of Glen Allan. Carved limestone, 7 x 3 3/16 x 4 7/8 inches. GM6125.1206.

and Holder 1945). Over the past two decades, however, this view has gradually been supplanted by a more complicated picture, one that portrays Mississippian art in terms of many distinct regional styles which interacted and changed over time (Brown 2004; Knight 2006; Lankford et al. 2011). We now know that the appearance of unity was caused by two factors: (1) a widespread substrate of shared beliefs about the cosmos and the supernatural beings who inhabited it; and (2) the movement of religious objects between regions, a result of either trade or religious pilgrimages, or both.

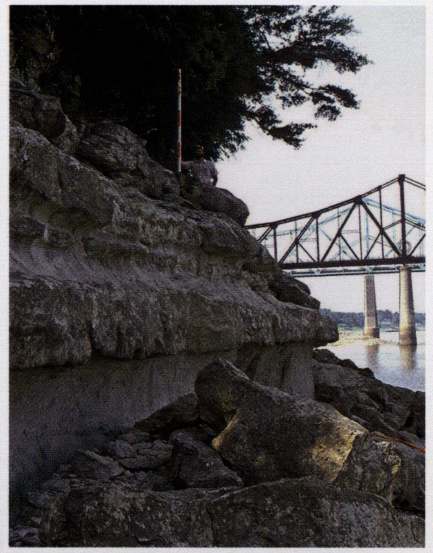
Mississippian people, together with Indian people throughout the Americas, saw the cosmos as consisting of three layers (Lankford 2004, 2007a; Reilly 2004). The Middle World, the one that humans inhabited, was often described as a disk of earth floating on water. Below this layer was the Beneath World, a watery realm entered through caves, rivers, and pools, which was inhabited by powerful supernaturals. These beings had the attributes of cats and snakes, often in combination. We call the feline version of this creature the Underwater Panther, and the ophidian version the Great Serpent (Lankford 2007b). These were not separate beings, but rather the two different manifestations of the same supernatural power—in much the same way as a single species of bird may have different plumages or morphs. And finally, over the Middle World was a third layer called the Above World. This layer comprised the celestial vault, which was realm of supernatural birds called Thunderers. As their name implies, Thunderers were associated with weather events, such as lightning, storms, and winds. They were seen as mortal enemies of the Underwater Panther or Great Serpent, and many stories were told about battles that took place between them.

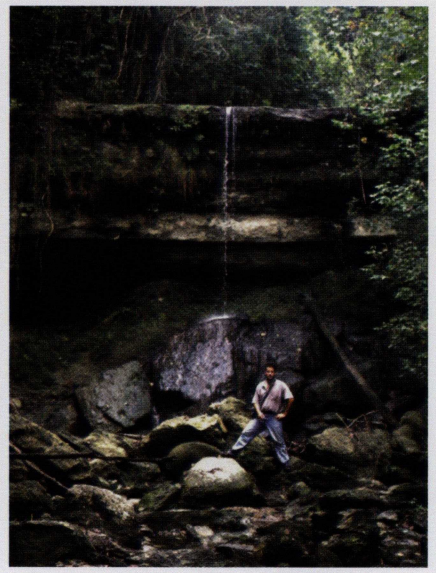


A modern representation of the Mississippian cosmos, showing the three layers and the beings that inhabit them (after Reilly 2004: Figure 2). Drawing by Jack Johnson, courtesy of F. Kent Reilly III.

This common substrate of belief accounts for many of the thematic similarities in Mississippian art, by which we mean the similarities in subject matter (Knight 2012). That is why Mississippian artists so often depicted beings that looked like snakes, cats, and birds—albeit in different regional styles.

In addition to thematic similarities, we also often see stylistic similarities in the way a given theme is depicted at widely separated sites across the South. We now know that such stylistic similarities resulted from the long-distance movement of individual objects—in other words, objects made in a particular style local to one region were transported, sometimes over great distances, to other parts of the Mississippian World. In some cases, this movement may have been the result of gift-giving or barter. In others, particularly with powerful spiritual objects that were kept in bundles, the mechanisms of





Glendon limestone outcrops near Vicksburg, Mississippi. Top: Left bank of the Mississippi River, upstream from the I-20 bridge. Bottom: Ravine in Vicksburg National Military Park.

movement would have been different. Such movements may have involved pilgrimages to distant towns, where the travelers apprenticed themselves to noted religious practitioners and eventually returned with both the bundled objects and the knowledge needed to use them properly (Steponaitis et al. 2011).

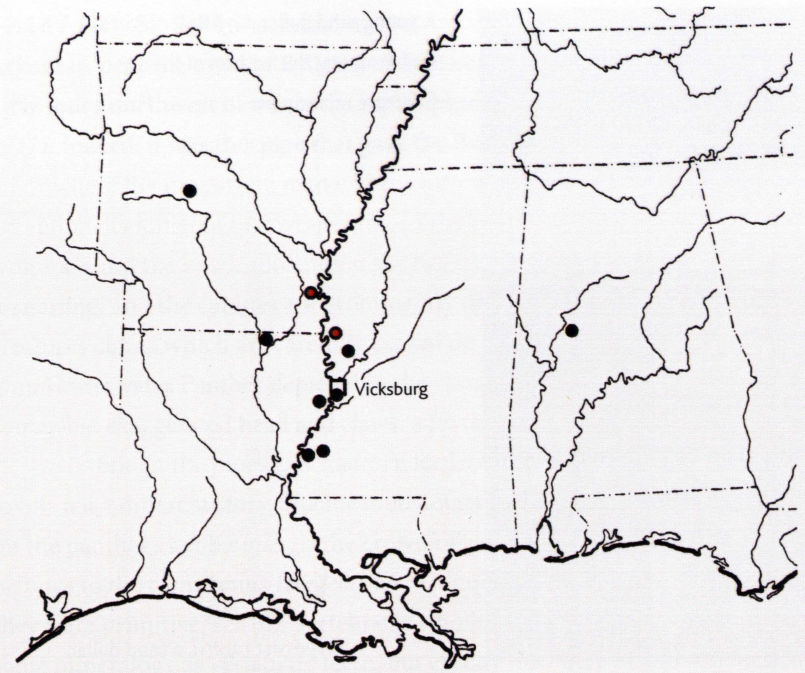
These long-distance movements not only created the illusion of widespread stylistic uniformity, but also spawned an archaeological puzzle which we nowadays try to untangle. Typically, the corpus of art one finds in a specific site or region is a mixture of items that were made locally and others that were made in distant locales and imported. To complicate matters further, some of the things crafted locally might also have been made of raw materials from distant sources. Sorting out these possibilities requires not only being able to recognize the hallmarks of various regional styles, but also being able to "fingerprint" the raw materials in order to determine their geological sources.

Often, this fingerprinting is done by looking at the chemical or mineralogical composition of the object so it can be traced to specific geological outcrops. But this type of analysis sometimes requires cutting or drilling into the object to obtain an appropriate sample—not ideal for unique works of art. For such objects, nondestructive methods of analysis are always preferable.

In recent years, the two of us have teamed up to study Mississippian effigy pipes with the goal of sourcing the ones made of limestone. One of us (Steponaitis) is an archaeologist who knows the pipes and their styles, and the other (Dockery) is a geologist who knows the rocks. Our method is simple and completely nondestructive: the limestones from which the pipes were made contain fossils, which can readily be seen in the pipe's surface. These fossils allow us to narrow down the possible sources from which the rock was obtained, and sometimes to identify a particular geological formation as the place of origin.

We applied this technique to a sample of eighteen limestone effigy pipes, mostly of the Bellaire style, from archaeological sites in Arkansas, Louisiana, Mississippi, and Alabama (Steponaitis and Dockery 2011). Based on the visible fossils, all but one of these pipes turned out to be made of the same material: the Glendon limestone, a formation that outcrops most visibly near Vicksburg, Mississippi. Massive outcrops of this rock occur at the base of the bluffs on which this city is built. They can be found just above the water line where the Mississippi River cuts into the bluffs, and in secluded ravines along the bluff edge, where ledges of this rock create sparkling waterfalls. We further noted that the geographical distribution of the Bellaire pipes was centered near Vicksburg, and that the decorations that sometimes appeared on these pipes mirrored those on the local pottery. Together, these lines of evidence strongly support the conclusion that Bellaire-style pipes were made in the lower Mississippi Valley, probably near Vicksburg, and from there were distributed more widely.

The two Bellaire-style pipes at the Gilcrease were not included in our original study. So when this museum's staff invited us to visit Tulsa and look at their collections, we jumped at the chance. The question on our minds was simple: Of what rock were these two pipes made? Based on prior experience, we expected the answer to be Glendon limestone. But until we actually examined the pipes, we couldn't be sure. Let us now describe each pipe in turn and discuss what we learned.



The geographical distribution of limestone pipes carved in the Bellaire style. The vast majority are made of Glendon limestone, which outcrops near Vicksburg, Mississippi. Locations where the Gilcrease pipes were found are shown in red.

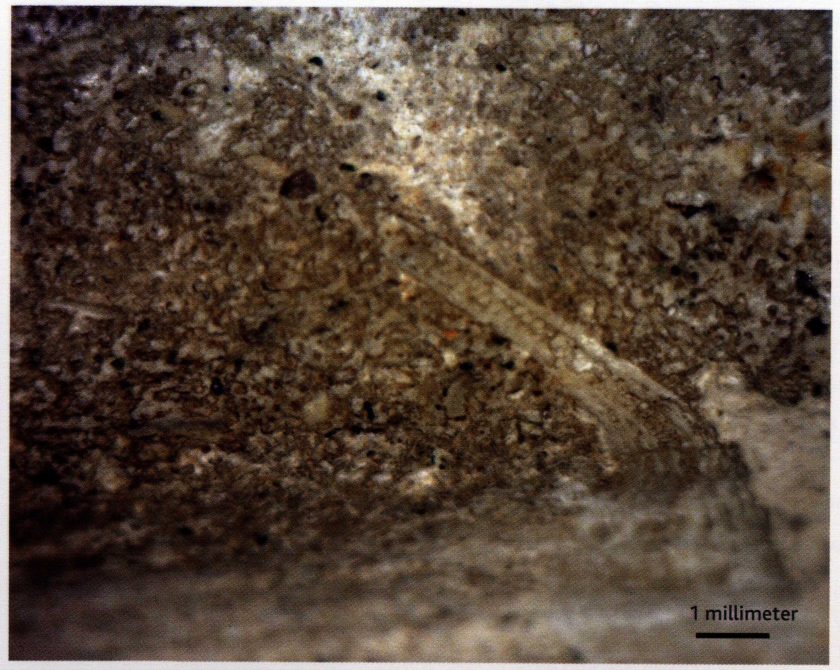
A comparison of raptor pipes carved in different styles. The top pipe belongs to the Bellaire style; note that the beak is open and the flight feathers are notched, ridged, and horizontal. The bottom pipe is carved in a different style, characteristic of the Caddo area west of the Mississippi; note the closed beak and the flight feathers made of simple, oblique incisions. Top, the Gilcrease raptor pipe; bottom, a pipe from Spiro Mounds, Le Flore County, Oklahoma, GM6125.18912.





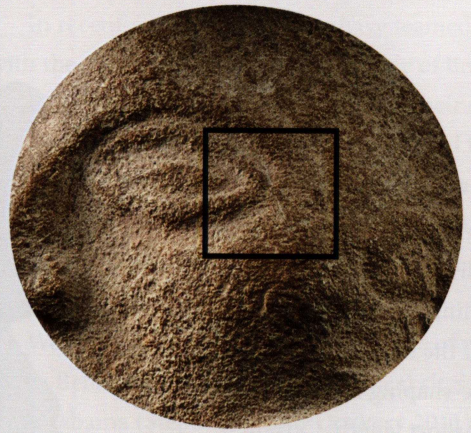
THE RAPTOR PIPE was found in 1917 on the Esperanza Plantation in Issaquena County, Mississippi, about thirty miles south of the city of Greenville.[1] It depicts a raptor clutching a forward-facing human head in its talons. The upper part of the beak appears to have broken and been repaired in antiquity by re-shaping and smoothing the remaining portion; hence its unusually short length. Certain details of the carving clearly link it to other Bellaire pipes: the open beak with protruding tongue, the forked eye surround, the tufted head, and—most distinctively—the notched flight feathers with incised decoration. Many other pipes depicting a similar "bird over man" theme are known from sites in western Arkansas and eastern Oklahoma, but the beak is not open and the feathers are rendered in a very different way, indicating a different regional style (for examples see Brown 1996:2: 513, Fig. 2.93b-c).

Thematically, the raptor in this pipe may be a Thunderer, or it may be a version of the Great Eagle who, in Seminole and Alabama stories, served in judgement on human souls along the celestial path taken by the dead (Lankford 2011). The meaning of the human head is not clear. A reasonable guess is this pipe and its thematic cousins to the west allude to a story—widely known in ancient times but nowadays lost (or at least unknown to anthropologists)—that involved a celestial raptor and a human or human-like being. Beyond that little



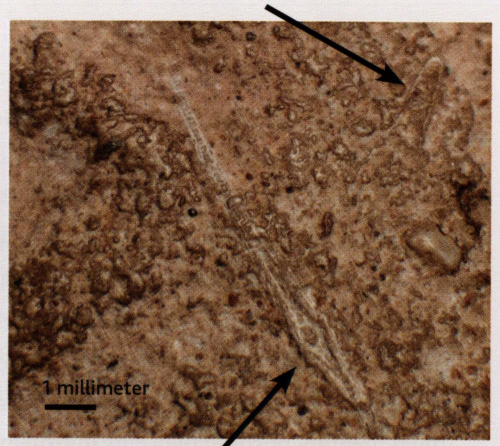
A young sand dollar, *Clypeaster rogersi,* visible among the feathers of the Gilcrease raptor pipe.





Fossils in the eye area of the human head of the Gilcrease raptor pipe.

Clypeaster rogersi, a sand dollar.



Lepidocyclina supera, a Foraminifera species distinctive of the Glendon limestone.

more can be said. A detailed examination of the pipe's surface reveals two distinctive fossils: *Lepidocyclina supera* and *Clypeaster rogersi.* The former is a large Foraminifera, a one-celled amoeba-like creature with a calcareous shell that lived in an ancient sea. The latter species is a sand dollar, a member of the phylum Echinodermata. Both of these creatures date to the Lower Oligocene Epoch, around 30 million years ago. Their fossils are common in the Vicksburg Group of the Gulf Coastal Plain, but *Lepidocyclina supera* is restricted to the Glendon limestone and overlying Byram Formation. The latter formation contains no rocks like that in the pipe, so the Glendon limestone is the only possible source.

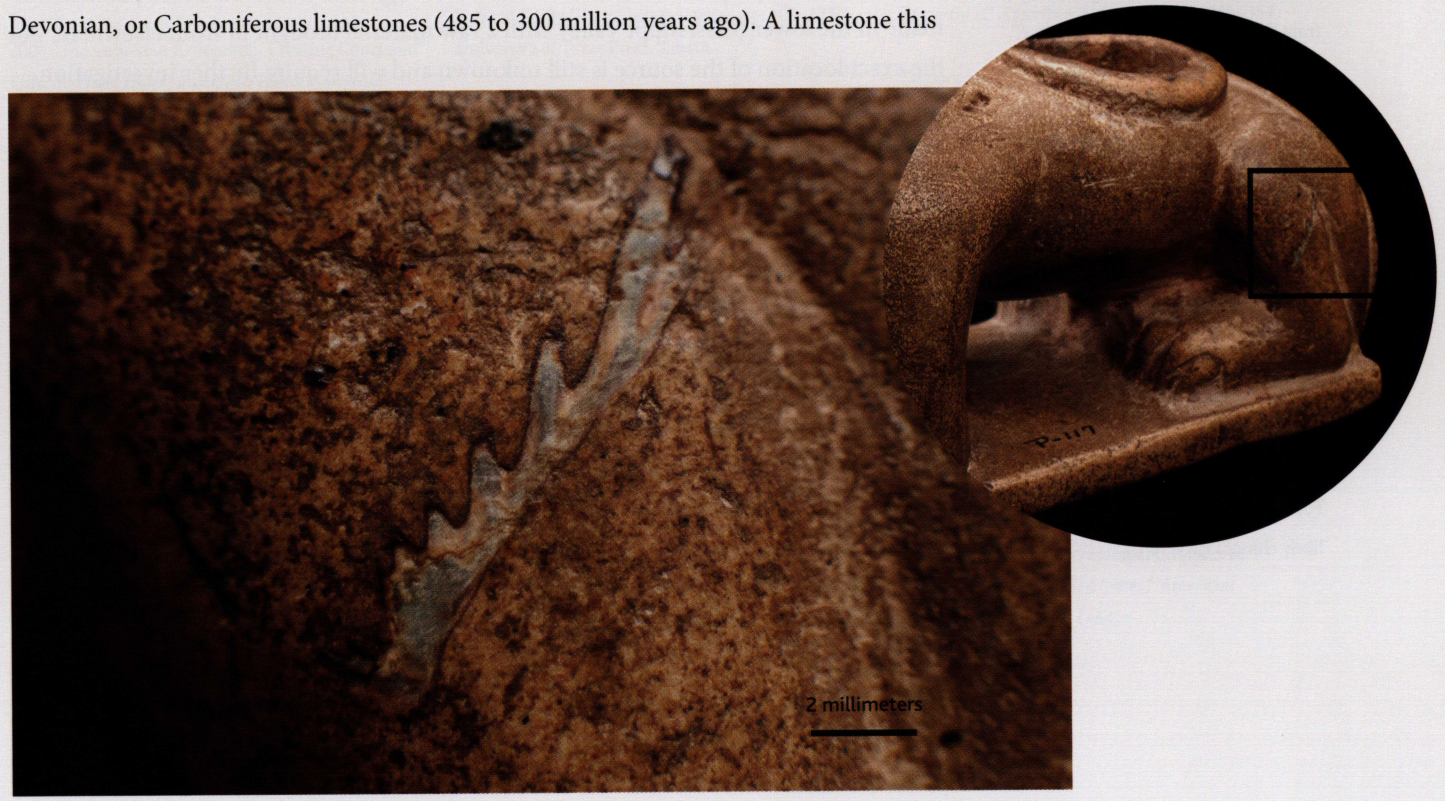
In sum, the Gilcrease raptor fit our expectations. Both the style of the pipe and its raw material were local to the lower Mississippi Valley. It was found some fifty miles north of the Glendon outcrops, several days' travel upriver by canoe.

THE PANTHER PIPE was found in 1886 on the Anderson Plantation in Chicot County, Arkansas, near the town of Bellaire, about twenty miles northwest of Greenville, and forty miles northwest of where the raptor pipe turned up (Lemley and Dickinson 1937). Indeed, it was this pipe that gave the Bellaire style its name, long before anyone knew where the pipes were made. The creature shown is a crouching feline with an exceptionally long tail that wraps around the pipe's stem hole, goes up over the back, wraps around the bowl, and ends at the back of the head. The head is erect, the mouth is snarling, and the canines are prominently displayed. Equally prominent are the creature's claws, which are carefully carved on the feet. There can be little doubt that this is an Underwater Panther depicted in the classic Bellaire style—with realistic features, somewhat exaggerated head and claws, a furrowed face, and legs shown in the round.

Even though the pipe's raw material looks superficially like Glendon limestone, its fossils tell a different story. The most obvious fossil, which looks like a jagged birthmark on the panther's left haunch, is the crown of a conodont "element" or tooth, which belongs to the form genus *Hindeodella*.[2] Conodonts themselves are enigmatic creatures; they were primitive, eel-like vertebrates who lived in the sea. Their elements have the same mineralogy as vertebrate teeth, but exactly how they fit and functioned in the animal's mouth is unclear, as very few fossilized conodont bodies have been found with the elements in place. Conodont elements are usually only 0.2 to 2 millimeters in length, with an upper limit between 10 and 20 millimeters. So the element in the Bellaire panther, some 12 millimeters long, is unusually large. Conodonts are generally associated with the Paleozoic Era (540 to 250 million years ago), but extend into the Triassic Period of the Mesozoic Era, becoming extinct some 200 million years ago. It is most likely that the conodont in the Bellaire panther is from Ordovician, Silurian, Devonian, or Carboniferous limestones (485 to 300 million years ago). A limestone this

A side view of the Gilcrease panther pipe shows an unusually large conodont fossil clearly visible in the hindquarters. Below, the pipe, a closeup of the conodont in the panther's left haunch, and a detail of the conodont. This fossil is a large element of the form genus *Hindeodella,* which is widely distributed in limestones of the Paleozoic Era.







A panther pipe made of Glendon limestone, believed to be carved by the same hand as the Gilcrease panther. This pipe was found at Moundville near Tuscaloosa, Alabama, in the late nineteenth century (Moore 1905). © President and Fellows of Harvard University, Peabody Museum of Archaeology and Ethnology, [96-11-10/48121], Digital file #60740557.

old could only have come from Paleozoic bedrock outside of the Gulf Coastal Plain. Such limestones extend in an arc from Texas and Oklahoma northeast into northern Arkansas, Missouri, Tennessee, and southeast to Alabama.

This discovery raises a question: Was the pipe made where the stone originated, outside the lower Mississippi Valley, or was it carved in the Bellaire style's homeland using an imported raw material? We believe the latter is far more likely, for two reasons. First, the style of the pipe is so true to Bellaire norms that it is difficult to imagine it could have been produced by anyone not well versed in the style, that is, anyone outside the region where the style was common. Second, another panther pipe exists (from Harvard's Peabody Museum, image above left) that is so similar to the Gilcrease specimen that it was probably carved by the same person (Figure 12; Moore 1905: Figs. 1-3; Brain and Phillips 1996: 386). This other pipe is made of Glendon limestone, which provides yet another strong link between the carver and the Bellaire style's homeland (Steponaitis and Dockery 2011: Table 1).

All in all, the preponderance of the evidence suggests that the Gilcrease panther was made in the lower Mississippi Valley with a raw material brought in from elsewhere. But the exact location of the source is still unknown and will require further investigation.

OUR EXAMINATION OF THESE TWO PIPES has added a new wrinkle to the results of our previous study. The Gilcrease raptor fit perfectly with our expectations—a Bellaire-style pipe made of Glendon limestone, consistent in both style and material with an origin in the lower Mississippi Valley. The Gilcrease panther, on the other hand, surprised us. This pipe was made by a carver working in a lower Mississippi Valley style, but using a material that came from a distant source, far outside the style's homeland.

So how do we explain this result? Let us propose a working hypothesis that is consistent with the current evidence. As stated at the outset, we believe the pipes were made by master carvers and used by religious practitioners and healers. In other words, they were not made by the same people who used them. Rather, just as in historical Indian tribes, a religious practitioner who needed a pipe would commission one from a well-known carver. In some cases, the practitioner would also supply the material to be used—a rock that had spiritual power, perhaps obtained as a result of a vision or in a place that had otherworldly connections. Indeed, outcrops of Glendon limestone may well have had such connections (Steponaitis and Dockery 2011: 354). The secluded ravines with pools of water where this rock could be found were exactly the kinds of places the Underwater Panther was known to inhabit. And not far downstream from the Glendon outcrops along the Mississippi River was a giant, standing whirlpool that the French described in the eighteenth century; such whirlpools and any kind of turbulent water were considered hallmarks of this supernatural being. Perhaps the Paleozoic limestone in the Gilcrease panther came from a similar, but much more distant place.

Studies of Mississippian art, and art in general, often benefit from a multidisciplinary approach, in which art-historical methods that focus on representation are combined with scientific methods that focus on the materials themselves. This combination can lead to a level of understanding that surpasses what can be learned using either set of methods alone. In this case, the recognition and identification of minute fossils embedded in limestones, combined with stylistic evidence, have yielded insights on where the Gilcrease pipes were manufactured and the distances over which the raw materials were moved. These magnificent pipes have added two more pieces to the puzzle as archaeologists strive to understand the patterns of trade and interaction in the ancient Mississippian world.

NOTES

1 Accession records say the pipe was found on Esperanza Plantation "located on Lake Washington, Mississippi on the Mississippi River, several miles out from Glen Allen, Miss., and not a great distance from the Chicot County, Arkansas line." Princella Nowell was instrumental in helping us determine the location of the former Esperanza Plantation as being in northern Issaquena County, just south of Lake Washington and the Washington County line.

2 We are grateful to James Miller of Missouri State University for initially recognizing this fossil as a conodont, and to H. Richard Lane of the National Science Foundation for identifying its genus and likely chronological range.

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Leggings, Lakota (Sioux), ca. 1900. GM8427.473.

Eric Singleton **When Old Becomes New: Recycling on the Great Plains**

Within the last generation, the concept of "going green" has captivated the hearts, minds, and economies of nearly every developed nation in the world, but have you ever contemplated the root of the phrase? Have you ever thought about the origins of recycling and its place in American history—and I don't just mean the history of the modern United States. Recycling or the reuse of objects dates back tens of thousands of years. Our earliest Native American communities practiced recycling and reuse through the reworking of stone, shell, and hide and, until the Industrial Revolution, so too did nearly every country and community on earth. The reason was simple: it was smart and often necessary. Without the use of modern machinery, using something until it died and then repurposing it into another tool was practical, efficient, and economical. Recycling may therefore be one of the oldest endeavors on earth—making the concept of "going green" not all that new.

Recycling has always had a place in America's history, but it wasn't until the Great Depression, then World War II, followed by the rapid growth of American commercialism in the 1950s and 1960s that it found a large, vocalized place in the daily lives of most Americans. Prior to this, most recycling was done within American households or by Native American communities. The large-scale recycling programs seen today were not necessary because the large-scale mass production of goods was not as readily available. However, our present ability to quickly and cheaply produce items has created societies where it is often cheaper to go out and acquire something new than to spend the time to fix or adapt an existing object. And when you are finished using an item and it has to go somewhere, that somewhere is usually a landfill or recycling bin. However, think for just a moment about what would happen if you could not simply go to the local department or hardware store to get towels, clothes, or tools? What would you do? How would you reuse the items littered throughout your home if they were all you had?

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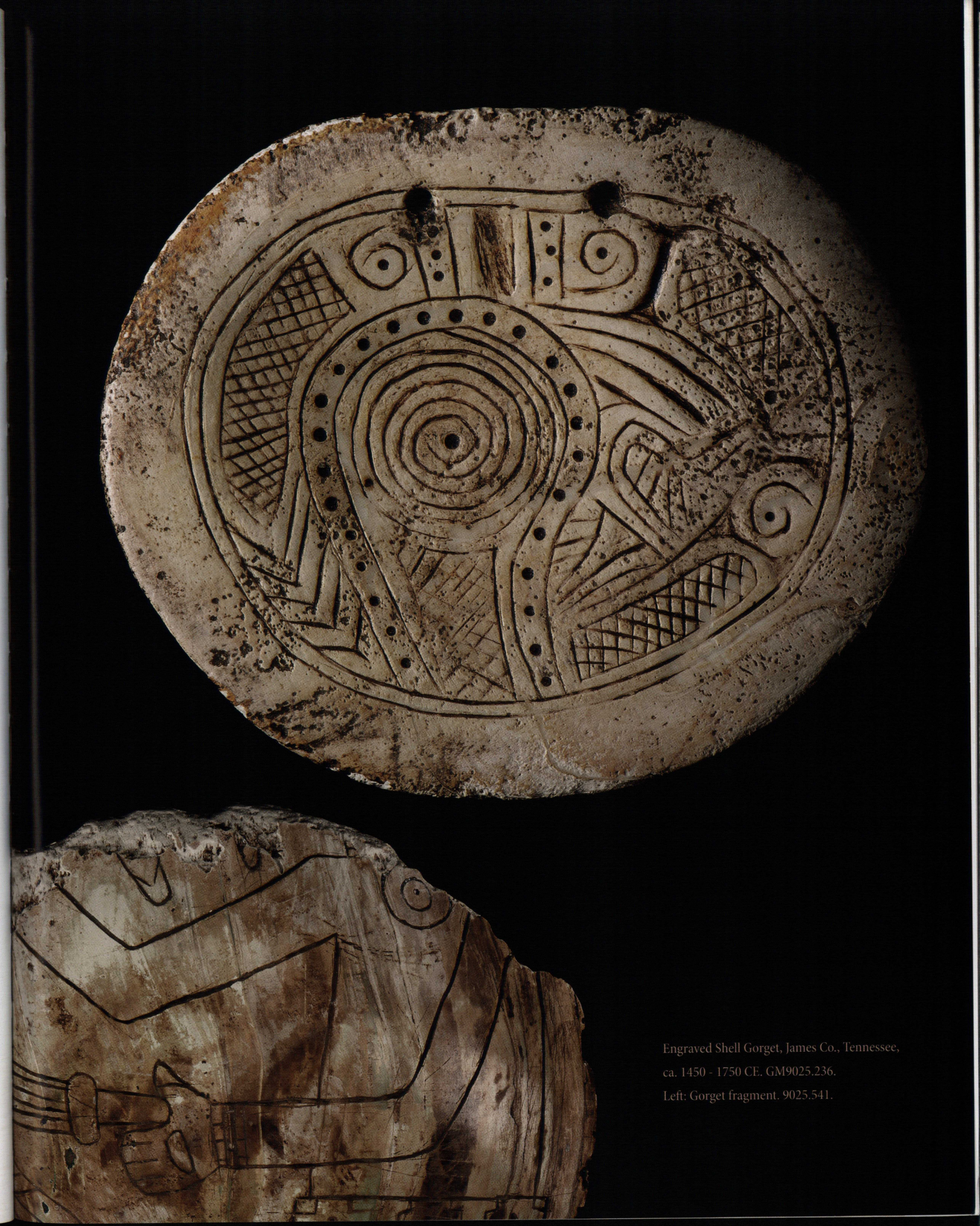
IN THE BASEMENT OF THE GILCREASE MUSEUM are objects that might help us answer these questions. The recycling and repurposing of objects was common in prehistoric and historic American communities. Some of the more common items and materials so treated were stone, leather, beads, metals, shell gorgets and cups, cradleboards, and bags, although this list barely begins to describe all the items that were at some point reworked to make new goods. Additionally, many of these items, such as leather, beads, and metals, were only one component of a larger object and therefore easily cut, sewn, and reworked into the pattern and structure of another item. Examples of this can be seen in jackets, moccasins, and beaded bags. But how can we tell that an object has been reworked or reused? And what does that say about the lives of the people who made the object and used it?

One of the museum's oldest and most notable objects to show signs of reuse is a Mississippian Period engraved shell fragment (9025.1684) from Oklahoma's Spiro Mounds. A quick glance reveals that the shell is incised on both flanks, a significant clue that it served two very distinct purposes—a cup and then a gorget. Mississippian Period cultures used a variety of shells from across the Americas to make gorgets and cups. Nearly all their uses were ceremonial, and as far as it has been determined were not normally engraved or incised on both sides. Once carved, the objects became sacred and were used only in connection with certain rituals. Therefore, the Gilcrease piece is unique and was most likely broken, or repurposed, after being engraved or partially engraved, yet before being used in a specific ritualistic manner—in this instance, as a cup in a sacred ceremony. Sometimes cups and other objects were ritualistically shattered or "killed," but typically when this occurred the object ceased to be used in any capacity. Perhaps an object of immense significance was a rare exception and allowed to be reused.[1]





Engraved Shell Fragment,
Spiro Mounds, ca. 1350 CE.
GM9025.1684e.



Engraved Shell Gorget, James Co., Tennessee,
ca. 1450 - 1750 CE. GM9025.236.
Left: Gorget fragment. 9025.541.

The most prominent ritualistic shell pieces that originated during this period are large engraved cups with intricate exterior designs.[2] These whelk shells, *Busycon perversum,* are found only in the Gulf of Mexico and most likely come from the Florida Keys or the Veracruz coast.[3] The size and curvature of the shell made it an ideal vessel for incising. Yet its size, typically 6 to 15 inches in length, also meant that the curved top could be cut out and used as a gorget. When the shell was used as a cup (9025.541), its exterior was incised with designs; when used as a gorget (9025.236), it was the interior of the shell that was incised. When we look at the fragment numbered 9025.1684 we see clearly that the object was engraved with anthropomorphic (human) features on one side and possibly zoomorphic (animal) elements on the other leading to the conclusion that this particular item was almost certainly an object of reuse and recycling.

ANOTHER EXAMPLE OF REUSE AND RECYCLING is a hair pipe breastplate (8426.172). Although hair pipe beads have a history that may date back thousands of years, this particular style of breastplate design came from the Comanche in the mid-1800s.[4] The design is fairly simple and straightforward. It consists of two horizontal rows with somewhere between thirty and sixty hair pipes, or tubular beads, hung vertically, with an equal amount being displayed on either side. They are normally made from bone, but descriptions of hair pipe beads from the early to mid-1700s indicate they were also be made of shell or, through European trade, silver.[5] The beads are held together using strips of thick leather and sometimes accented with trade beads, a gorget in the upper center, and brass along the leather.

Facing: Hair Pipe Breastplate, late 19th/early 20th century. GM8426.172.

Right: A detail from the breastplate showing coins attached to the leather on which the pipe beads are strung.





Necklace, ca. 1910. GM5726.20.



Crow King, photograph. Lakota (Hunkpapa Sioux), ca. 1881. GM4326.4850a.

The word *breastplate* and the appearance of the object may give the impression that such items were used as armor. In fact they offered no protection in battle. They were, however, coveted by warriors as indicators of wealth and stature. It is not surprising then to see that this item has two distinct recycled features: a reflector, affixed near the top of the piece, and coins, hung from the lower portion. Both items were taken from other objects and sewn onto this piece to enhance and accentuate it. These items would have likely been difficult to acquire and that rarity added to the level of prestige associated with them. Also, the reflector, depending on who added it, may have functioned similarly to that of a mirror—an object that held great ritualistic and symbolic meaning for Native American people.

The elements added to this particular piece are obvious when compared to the previously discussed shell and show an intriguing way to display secondary objects as part of a larger whole. They also show how even everyday items, when a culture or individual is so inclined, can be used for a purpose much different from the original one. In all likelihood, this object may have lived two very different lives and acquired decorative details gradually as they were added by successive generations of family members. The coins, which date between 1887 and 1919, are significantly newer than the breastplate itself, leading to the conclusion that they were most likely not added to the breastplate by the original owner. Auxiliary elements such as these increase the difficulty of accurately dating a given object.

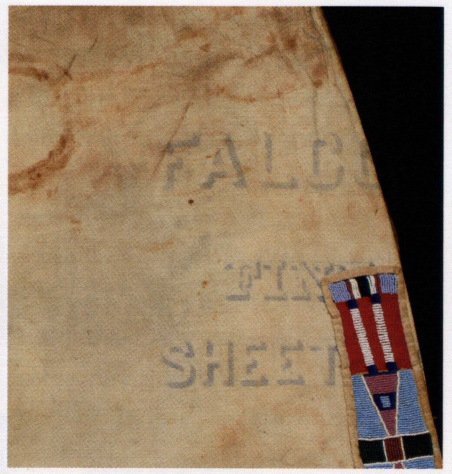


Indian Squaw and Papoose, Ponca City, 101 Ranch postcard. GM4327.8991.

ANOTHER ITEM with indications of repeated and substantial recycling is a Crow beaded saddle blanket (8426.658). To anyone who is carefully looking, this item communicates the history of the Crow people and the changes that took place on the Great Plains during the latter half of the 19th century. At first glance, this object appears to be a typical Crow beaded saddle blanket—an item designed to fit comfortably on the back of a horse with the beaded side exposed and draped over the horse's hindquarters. A quick examination shows that the blanket is made of canvas and has printed lettering. This is not uncommon, but a more detailed inspection of the canvas shows smoke staining and stitching similar to that seen on tipi coverings. What does this tell us about the history of the object and the Crow people?

Almost everyone knows what tipis are. They were the standard living quarters for most nomadic or semi-nomadic Native American cultures on the North American Great Plains and were constructed using cone-shaped wood frames covered in buffalo hides. Due to daily wear and tear, the exteriors of tipis had to be replaced yearly. However, the near eradication of the buffalo in the late 1800s cost Native Americans one of their greatest resources, forcing them to trade or use government-issued canvas to construct their tipis.[6] This fabric, like buffalo hide, gradually wore out and needed to be replaced. Today we could, and usually would, simply throw away the canvas before replacing it with something new. However, this was not possible for Native Americans who were forced onto reservations and relegated to using government annuities.





Saddle Blanket, Crow, 19th/early 20th century. GM8426.658.

Kiowa/Apache (Pacer) camp, photograph. GM4326.3593. This photograph shows tipis covered in both canvas and hide.

Therefore, we are looking at a saddle blanket that most likely came from canvas acquired via the U. S. government or by traders on the reservation. Rather than throw away the canvas, someone reused it. Following at least a year's use as the lining of a tipi, where it was blackened by soot from fires, the canvas was stripped down and used as a saddle blanket. This one piece indicates a great many things if you are willing to look. First, it shows the gradual transition from animal hides to more commercial goods and, second, it highlights the lack of resources that gradually became the norm for most Native American communities living on the plains.[7]

ONE OF THE MOST UNIQUE ITEMS IN THE MUSEUM'S COLLECTION is a western styled beaded jacket. It is approximately one hundred years old and is heavily beaded and fringed. When I first came upon this jacket in the storage vaults I was a little confused. It is unlike any other piece of clothing that I had previously seen or studied. Although it is constructed like a typical jacket, it contains a wide variety of beaded pieces that simply do not belong. However, my momentary confusion quickly abated as I noticed that this item was one of the greatest examples of reuse and recycling in the museum. This jacket came into the Gilcrease collection in the late 1940s or early 1950s. It is extensively beaded on the back, around the collar, at the base, and on the front pockets. All of these beads worked perfectly to create what I believe was a Wild West Show jacket, and, although it is difficult to tell at first glance, every beaded piece was originally part of an entirely different object (8427.1821).



Rocky Mountain Hank wears a fringed western jacket in a photo from a 101 Ranch postcard. GM4327.8848.

The easiest items to identify are the pockets. There or four—two located on the chest and two more several inches below. Each pocket is beaded in a unique pattern and each of these pockets were once small beaded bags. Whoever made this jacket cut the bags in half and sewed them to the front of the jacket. This technique was very effective and created perfect pockets, but it is far from the most noteworthy aspect of the jacket's construction. The sleeves, which appear as if they belong on arms, are in fact made from a Lakota woman's leggings. You can tell by the green strip at the bottom of the "sleeve." The beaded green strip is thick at one end before subtly shrinking in size—a common feature of Lakota women's leggings.

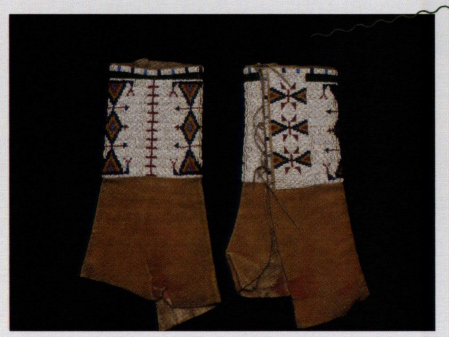
The most elaborate parts of the jacket are the beaded fragments on the shoulders, back midsection, and around the base. Each section is intricately beaded with geometric forms, crosses, lodge designs, etc., which fall against a solid dark blue beaded background. If you know what to look for, the shoulder and midsection become readily identifiable, but identifying the beadwork on the base of the jacket can be much more baffling. The shoulders and midsection are from a Lakota girl's dress yoke. When the jacket's sleeves are fully laid out, the dress's design becomes obvious. It should also be noted that the beaded element commonly referred to as a turtle design is highlighted by yellow and green U-shaped beaded bands in the middle of the shoulders.[8] This turtle design became common after the 1870s and

was only used on women's dresses. The turtle was seen as a protective element and was displayed either below or in place of the deer tail design that was common in earlier dresses. The upper shoulder piece was the front of the yoke with the jacket's midsection the dress's reverse.

The jacket's beaded base took longer to recognize but was determined to be a Lakota cradleboard cover.[9] Nearly all Native American cultures used swaddling and cradleboards to secure infants, and this need created a multitude of differing cradleboard styles. The most common style is found on the North American plains and was constructed using two wooden pieces tied in the shape of a V. Next, the cradleboards are enclosed with rawhide, cloth, and covered in elaborate beading. The beaded coverings typically have a uniform width throughout and are approximately 54 inches in length. Before the introduction of the horse, cradleboards were worn similarly to a backpack; however, as the horse made its way onto the plains and into the daily life of Native Americans, the cradleboard was tied to the saddle of the horse or added to the travois, which trailed behind it.[10] When not tied to a horse, the cradleboard was leaned against a tree or against the post of a tipi. The V-shaped design of the wood planks prevented the cradleboard from falling.

Beaded Jacket, ca. 1920.
GM8427.1821.





cuffs = recycled women's leggings

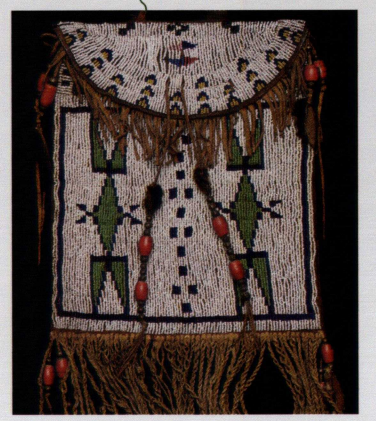
Leggings, Lakota (Sioux), ca. 1900. GM8427.473.





shoulder area = yoke of a child's dress

Child's Dress, Lakota (Sioux), ca. 1890. GM8427.1793.



pockets = repurposed small beaded bags.

Beaded Bag, Lakota (Sioux), 19th century. GM8426.674.



base of jacket = beaded cradleboard

Cradleboard, Comanche, ca. 1920. GM84.628.



Chief Standing Soldier, Joseph Henry Sharp, 1905, oil on canvas. GM0137.442.

Parfleche Envelope, possibly Nez Perce, 19th century. GM89.205.

THE FINAL OBJECT TO BE DISCUSSED is perhaps the most underappreciated, yet possibly the most versatile object made by Native Americans. It is the parfleche. Parfleche is not a Native American word, but comes from the French Canadian parer, to ward off, and flèche, meaning arrow. Introduced by trappers and traders in the 1700s, this term originally referred to shields, and only gradually came to represent any untanned hide or painted rawhide container used for storage.[11] Prior to 1880, parfleche containers were made from the dried hide of buffalo, making each envelope, bag, tube, or box, strong, flexible, and waterproof. However, with the destruction of the massive buffalo herds on the American plains, different hides, such as elk, deer, moose, and cow, became more common.[12]

Parfleche is a perfect material for recycling, and when studying the multitude of items in the Gilcrease collection the large volume of salvaged parfleche becomes readily apparent. This is due to the strength and longevity of the hide as well as the variety of painted geometric forms typically seen on the exterior of the pieces. Take for example the eagle feather headdress shown on the facing page (8426.261). This flared bonnet is constructed in the classical fashion with thirty feathers tied in a circular manner onto a felt skullcap. In order for the feathers to flare, the feathers are individually encased in small strips of rawhide, then covered in what is typically red trade cloth. This technique secures the feathers in place and adds an enhanced decorative element to the piece. When looking closely at this bonnet, it is apparent that not every piece of rawhide was made new. Some of the pieces are from a used parfleche envelope, as evidenced by the painted design on the rawhide.



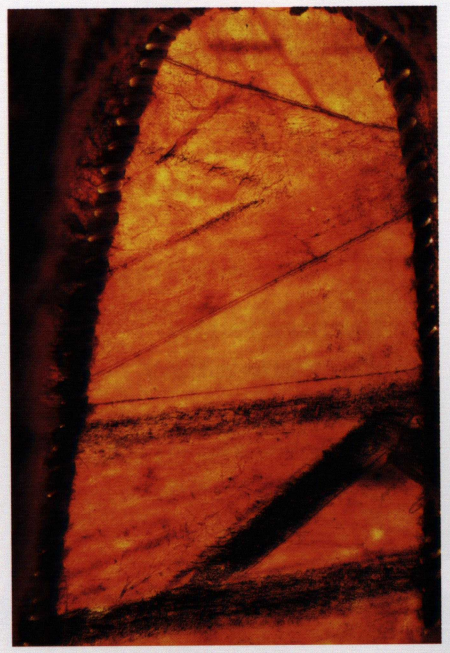


Eagle Feather Headdress, Plains, late 19th/early 20th century. GM8426.261. Below, a detail of the wrapped quills supported by parfleche.



IN TWO OTHER ITEMS IN THE GILCREASE COLLECTION that were constructed using secondhand parfleche—a pair of beaded moccasins (8427.400) and a pipe bag (8426.502)—the salvaged parfleche was evident only to the maker or the user. The parfleche on the moccasins is located on the soles of the shoes with the painted design only seen on the inside. In the tobacco bag, the used strips of parfleche were hidden under quillwork which was designed as the bag's fringe. This was an ingenious reuse of an item that no longer functioned as a storage container and, until today, it was not visible to anyone.

When we consider today what it means to recycle—and how that concept has itself been recycled, it would benefit us to understand how common a practice recycling and repurposing was and how advantageous it can still be. In a world caught between commercialism and conservation, it is easy to think of recycling as a modern trend, but the roots of "going green" are far, far older. Rather than embrace the idea as something new, we should see it as something much broader and much older. Regardless of what it means to us today or how practical, efficient, and cheap it is, if we are willing to look at its history, it can also reveal how connected we are with the past and the values, resources, and lives of those who came before us.



Moccasins, Lakota (Sioux), ca. 1910. GM8427.400a, b. The image above shows the parfleche sole.





Pipe Bag, Cheyenne, ca. 1900. GM8426.502.



Pipe Bag, Cheyenne, ca. 1900. GM8426.502.
A quilled parfleche strip is hidden under the fringe.

NOTES

1 F. Kent Reilly, Jr. , Texas State University, refers to this as antiquing. An example of this is the reworking of the Spear of Destiny or the breaking of copper at the potlatch, gift-giving, ceremony on the North American northwest coast.

2 Phillips, Philip and James Allison Brown. *Pre-Columbian Shell Engravings from the Craig Mound at Spiro, Oklahoma, Part 1: From the Craig Mound at Spiro, Oklahoma.* Cambridge, Mass: Peabody Museum of Archaeology & Ethnology, Harvard University, Publications Department, 1984.

3 ibid.

4 Jones, David E. *Native North American Armor, Shields, and Fortifications.* Austin: University of Texas Press, 2004.

5 Ewers, John C. "Hair Pipes in Plains Indian Adornment: A Study in Indian and White Ingenuity." *Anthropological Papers,* No. 50. Washington D.C.: Smithsonian Institution Bureau of American Ethnology, 1957.

6 Holley, Linda. *Tipis, Tepees, and Teepees.* Layton, UT: Gibbs Smith Publisher, 2007.

7 Laubin, Gladys and Reginald Laubin. *The Indian Tipi: Its History, Construction, and Use.* Norman: University of Oklahoma Press, 1957.

8 Grafe, Steven L. *American Indian Traditional Arts in A Western Legacy: The National Cowboy & Western Heritage Museum.* Norman: University of Oklahoma Press, 2005.

9 This base section was identified by one of my colleagues, the noted beadworker Molly Murphy-Adams.

10 Keoke, Emory Dean, and Kay Marie Porterfield. *Encyclopedia of American Indian Contributions to the World: 15,000 Years of Inventions and Innovations.* New York: Checkmark Books, 2003.

11 Torrence, Gaylord. *The American Indian Parfleche: A Tradition of Abstract Painting.* Seattle: University of Washington Press, 1994.

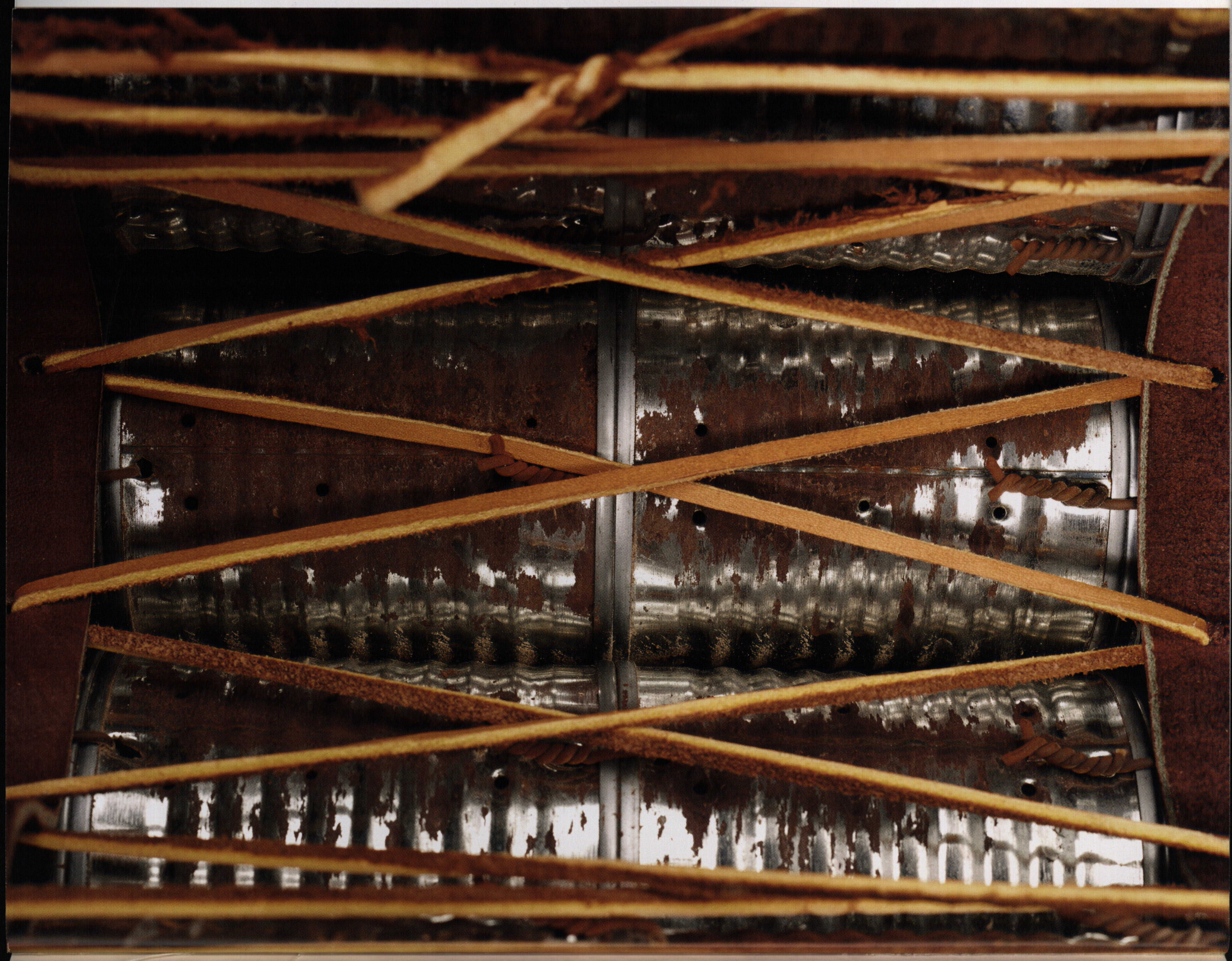
12 ibid.

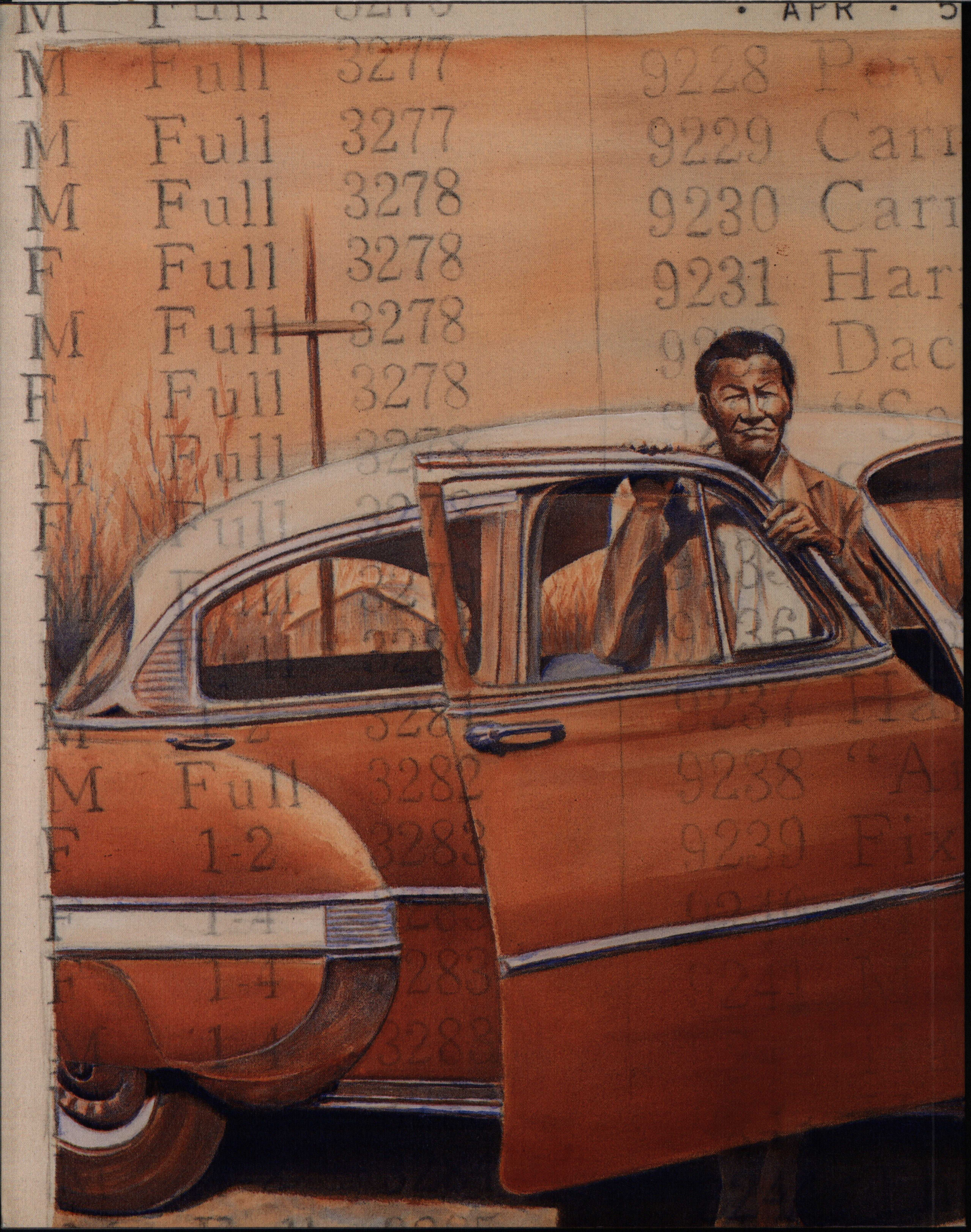
Postscript: Tomato Can Rattles



Women's Tomato Can Dance Rattles, Yuchi, Bristow, Oklahoma, 1997. GM84.2888a, b.

Before the introduction of European and American trade goods to Native Americans, leg rattles were made from turtle shells. Approximately nine to twelve turtle shells were drilled with many small holes, filled with pebbles, sealed, and attached to leather leggings worn around the calves of dancers. The jouncing rattles added a lively musical component. Making them, however, was a laborious process. Re-purposed metal cans became a practical and efficient subsitute. Here, tomato cans do the job.




M Full 3277
M Full 3277
M Full 3278
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M Full 3278
F Full 3278
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F Full
M Full 3282
F 1-2
F 1-4
1-4
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