

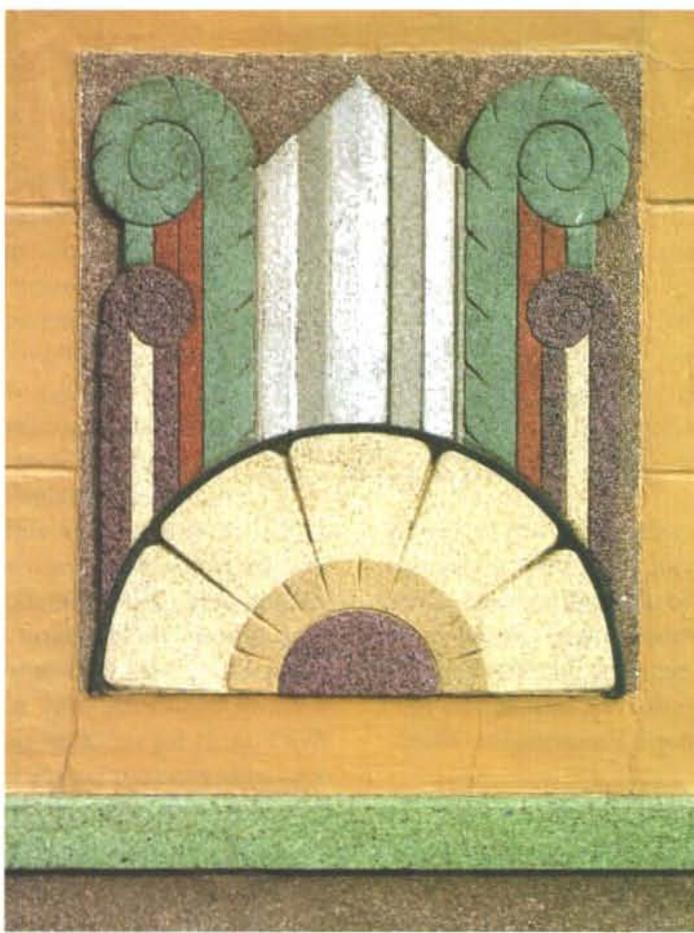
ISSUE NUMBER 55  
THE MAGAZINE PUBLISHED  
IN THE INTEREST OF  
PRESERVING AND  
RESTORING THE  
MODEST AMERICAN  
20<sup>TH</sup> CENTURY HOME,  
THE BUNGALOW,  
AND THE RICH LIFESTYLE  
THAT IT AFFORDS

# AMERICAN BUNGALOW

RESTORATION  
ACCESSORIES  
HISTORY  
FURNISHINGS  
EVENTS  
ARTS AND CRAFTS  
UPGRADING  
PHILOSOPHY  
GARDENS  
PROJECTS  
LANDSCAPING







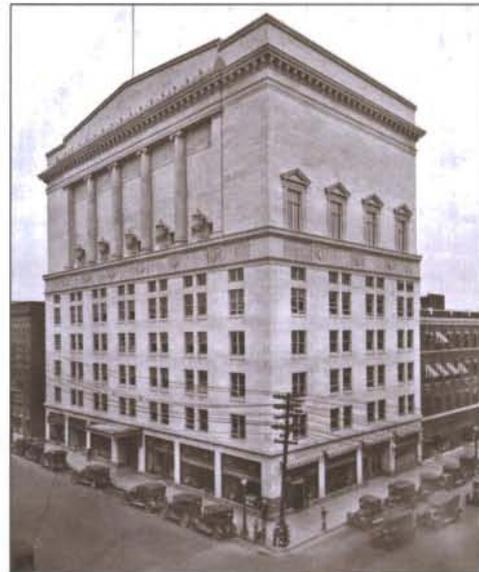
# CARTHALITE

## WICHITA'S BEAUTIFUL CONCRETE

BY BARBARA R. HAMMOND

**W**ICHITA, KANSAS, CENTERED AROUND THE confluence of the Big and Little Arkansas Rivers just south-east of the center of the state, once called itself the "Nile of America" and, just as improbably, "The Forest City." That was before 1890, when one of a long series of economic booms that continued into the 20th century collapsed. By 1920, it was becoming known, with a lot more justification, as the "Air Capital of the World," as men like Clyde Cessna, Glenn Martin, Lloyd Stearman and Walter Beech began assembling the nation's first aircraft companies.

Craig Miner, a Wichita historian, writes that "places become what people make of them. ... Wichita has been the ultimate example of the Power of Positive Thinking and of the influence of genius upon ordinary resources.



EDGAR B. SMITH/PROPERTY OF LUSCO BRICK & STONE CO.

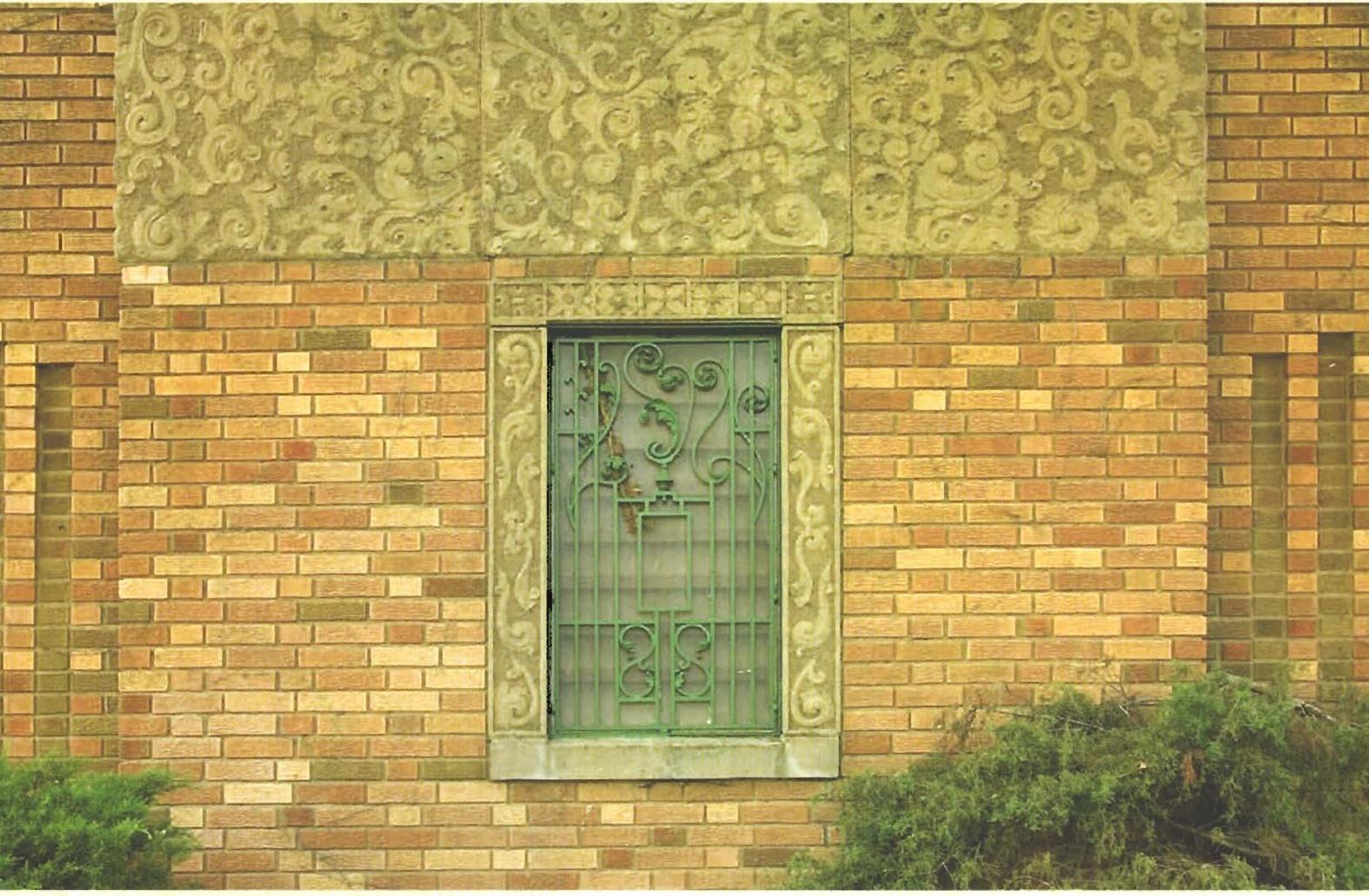
[Marshall] Murdock [an early editor of the *Wichita Eagle*] once called the city 'spell created.' To the sloganeers of the 1880s, puffed with a population growth rate and volume of real estate transfer unequalled in the U.S., it was 'The Magical Mascot of the Meridian,'—'The Magic City of the Plains.'"

By 1930 the city was also well on its way to becoming a city of bungalows, many of them built with bricks manufactured from abundant local sand deposits. Those bungalows, and the neighborhoods they compose, are attracting increasing local and regional interest, in part as the result of a historic-resources survey, initiated in 2005, undertaken by the Wichita Historic Preservation Office.



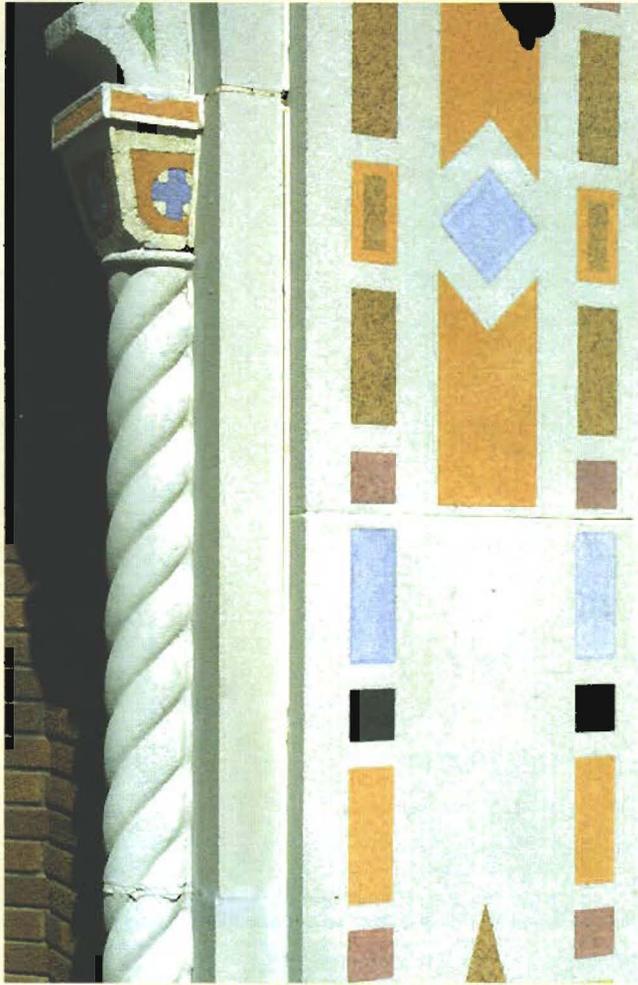
One outcome of this survey will be a series of articles on Wichita bungalows that will appear in future issues of *American Bungalow*. Meanwhile, however, a related outcome of the increased interest in historic preservation in Wichita has been the discovery (or, more properly, rediscovery) of a remarkable but hitherto little-known building product called "Carthalite," especially as it occurs in its rare but striking colored forms. Although its specific interest for an

audience of bungalow enthusiasts may be limited to the fact that it has been discovered on (so far) just one Wichita bungalow, it is a remarkable example of an indigenous and historic architectural innovation of surprising, and surprisingly simple, beauty that, according to some architectural historians, may be unique to the U.S.—and to Wichita. If for no other reason, it has become an important adjunct to our survey of the city's historic bungalows.



# GALLERY:

## KNOWN CARTHALITE STRUCTURES IN WICHITA



### DOCKUM DRUG STORE BUILDING NO. 5 (1927)

This is the last remaining structure associated with Harry Dockum's local drug-store chain, which was founded in 1903. Dockum leased this new building for his Store Number 5 when it was built in 1927. "Home Owned" Dockum Drugs totaled nine stores by the 1950s. (Contractor Robert J. McKee also built the bungalow at 1421 Coolidge for himself three years later, which probably

accounts for the similarity of the geometric Carthalite motifs between the store building and the house.) The building is unoccupied at present; a proposed new "urban village complex" will be built directly adjacent to it.



### PINES APARTMENT BUILDING (1929)

The Pines is one of a pair of two-story apartment buildings that were built side-by-side by the Henrion Improvement Company of Wichita; only the Pines has Carthalite decorative elements. Both buildings are still occupied but have fallen into disrepair in recent years. New owners of the adjacent Weathers building plan to rehabilitate it and nominate it to the National Register of Historic Places in association with two similar apartment buildings across the street as a small historic district. The possibility exists that the Pines may be included in the nomination.

## THE MAGIC CITY, CAST IN STONE

At first glance, the subtle colors on the surfaces of the cast-stone panels decorating 11 structures in Wichita appear to be simply painted on white or gray concrete surfaces. In fact, though, the geometric and curvilinear designs are colored sections of concrete that penetrate into the cast pieces. As a result, the colors have endured for more than 80 years without any noticeable fading.

When the Cement Stone and Supply Company of Wichita went into the business of making imitation limestone in 1905, cast stone was not a new process. Cement casting was (and still is) a common construction technique. It was used as a building material in medieval Europe and was widespread in England and the United States by the early 1900s.

Although Kansas may not be thought of as a cutting-edge-of-technology kind of place, newspaper accounts from the early days of the city show that settlers brought advanced construction expertise from the east to the frontier settlements in the expanding western U.S. Wichita



### ADMINISTRATION BUILDING, WICHITA MUNICIPAL AIRPORT (1929-34)

Construction of this Art Deco building, which was designed by architect Glen H. Thomas, was completed with the infusion of federal funds through New Deal relief programs. The facility provided municipal air service to Wichita until 1951, when a larger facility was constructed at another location. Aviation motifs rendered in blue and green Carthalite beautify the north and south facades and are highlighted by the 37-foot cast mural depicting Lindbergh's flight over the Atlantic. The building, which is listed on the National Register of Historic Places, now houses the Kansas Aviation Museum.



### EDMUND E. STANLEY ELEMENTARY SCHOOL (1930)

Prominent local architects Schmidt, Boucher, and Overend designed this building. Local legend has it that the lacy Carthalite designs over the arched doorway and the frieze above were adapted from an embroidery pattern. The school still serves elementary students.



was evidently up to date in the manufacture of cast concrete by 1877, when the *Wichita Eagle* reported that a local company was making artificial stone blocks from sand collected on the banks of the Arkansas River and the *Wichita Beacon* reported that hollow concrete blocks, produced in a variety of shapes, resembled white limestone in color and sandstone in texture.

In Wichita, many companies manufactured plain cast components such as lintels and sills, cornices, balustrades, columns and capitals for the city's characteristic brick and stone buildings. But as far as we know,



only one—the Cement Stone and Supply Company, which used the trade name “Carthalite” for all its cast concrete products—also created the unusual colored decorative elements that appeared on a relatively few buildings between 1927 and 1940.

Hiram W. Lewis, a prominent philanthropist and president of the Wichita National Bank, founded Cement Stone and Supply Company in 1905. Two years later he teamed up with Hunter B. Gilkeson, a coal-company clerk who knew the casting trade, to organize a sister company, Lumbermen’s Supply. Cement Stone and Sup-

ply produced decorative trimming stone, for which they coined the term Carthalite. (The name was meant to be reminiscent of Carthage limestone from Missouri.) Lumbermen’s Supply operated as the distribution side of the collaboration, promoting Carthalite as a practical substitute for cut quarry stone.

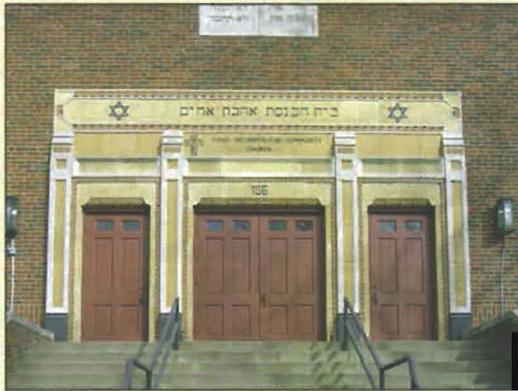
When the prosperity of the 1920s reached Wichita, the company added a new luxury line of garden furniture that featured benches, sundials, flower boxes, birdbaths and porch vases. In addition to three-dimensional building components, the company created a mysterious series



BARBARA R. HAMMOND

### ALLEN'S MARKET (1930)

This grocery-market building was designed by one of Wichita's major architects, Glen H. Thomas. The Henrion Company, which also built the Pines Apartment, constructed the building. Apparently Thomas and Walter Henrion had an affinity for Carthalite. Thomas also employed it in his designs of the Wichita Airport Administration Building and the Minisa Bridge. Allen's Market is listed on the National Register of Historic Places.



BKH

### SYNAGOGUE AHAVATH ACHIM (1930)

Popular Wichita architect Ed Forsblom designed this Orthodox Jewish synagogue for the Hebrew Congregation of Wichita. It is now owned by Metropolitan Community Church, Inc.

of bas-relief murals, now extant only in unidentified photos, apparently depicting scenes from Kansas history—Coronado's exploration in 1541, longhorn cattle drives from Texas to the railheads during the years from 1867 to 1886, westward migration by wagon train from the 1850s to the 1880s, the Cherokee Strip Land Run at the Kansas-Oklahoma border in 1893 and urban development in the 1920s and 1930s. All the company's early products were cast in natural white or gray cement.

Historic photographs from 1925 give clues to the casting process. A wood form was pressed into the sand floor, which created a three-dimensional negative impression when removed. The sand was moistened, probably with an oil-based mixture that permitted it to be tightly compacted. Compaction prevented the molded impression in the sand from caving in when the wood form was removed. The cement mixture was poured into the open mold and allowed to cure. When the positive cast object was removed from the sand it retained the articulation of the original wood form.

### THE ADVENT OF COLOR

In the late 1920s the company sought to enhance the appeal of some of the bas-relief sculptural panels it was producing for building facades by adding color to them. (Color was used only in surface panels, not in the three-dimensional items such as columns, urns and porch furniture.) Colored panels are known to have been produced for 12 buildings, 11 of which still stand. They include the city's original Airport Administration Building, an apartment building, an elementary school, three stores, a synagogue, a small



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office building, a park restroom structure, a bridge and a private residence—one of the city’s iconic brick bungalows.

The exact method of casting multicolored pieces is not well understood because no photos exist of the process. However, oral history credits plant manager Benjamin F. Krehbiel with initiating, although not inventing, the process as a cheaper and more durable alternative



KATHY L. MORGAN

### JOHNSON DRUG STORE (1930)

With the assistance of his contractor and B. F. Krehbiel of the Cement Stone and Supply Company, owner Gilbert Johnson designed an attractive multi-unit retail structure that—without the Carthalite and glazed terracotta elements—would have been just another ordinary one-story commercial storefront building. With them, however, we are reminded of decorative tastes of the time. Johnson sold his store to John Callender, who was in business until 1968; the building currently houses a thrift shop. The building is listed on the National Register of Historic Places.



### R.J. MCKEE HOUSE (1930)

The smooth Carthalite surface that decorates the door surround of this North Riverside bungalow is the only known use of Carthalite patterns on a single-family residence. The house is one of 18 adjacent bungalows that McKee built in this neighborhood for speculative purposes.



### MINISA BRIDGE (1932)

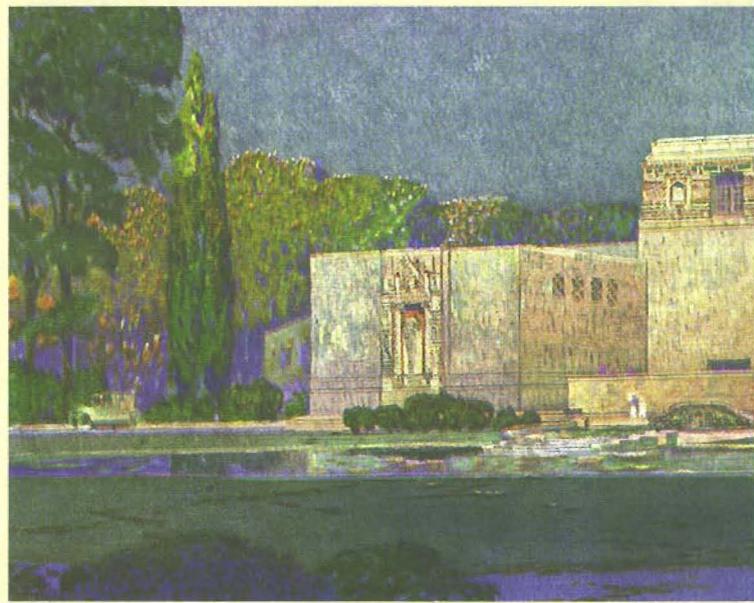
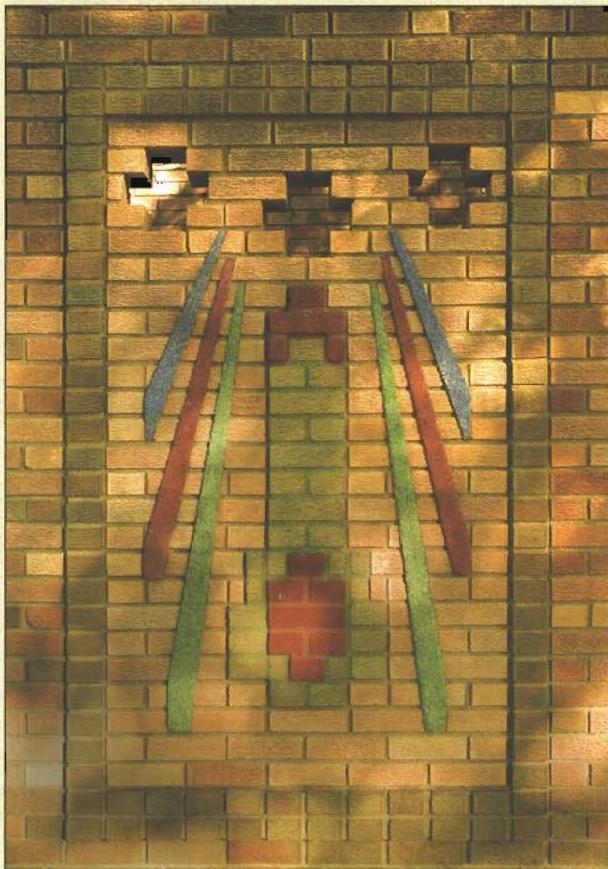
Glen H. Thomas designed the Minisa Bridge with Carthalite ornamental elements that complement the iconographic glazed terracotta sculptures he used on adjacent North High School, which was built in 1929. Like the school sculptures, the motifs on the bridge represent buffalo and Native American images. The bridge is listed on the Wichita Register of Historic Places.



## NORTH RIVERSIDE PARK COMFORT STATION

(1934)

This beautiful, tiny building has served an ordinary function as a public restroom since 1934. It was designed by City Parks Commissioner L.W. Clapp and utilizes crushed colored glass as an aggregate in the Carthalite panels. It is listed on the National Register of Historic Places for its architecture and its association with federal work projects of the Depression Era.



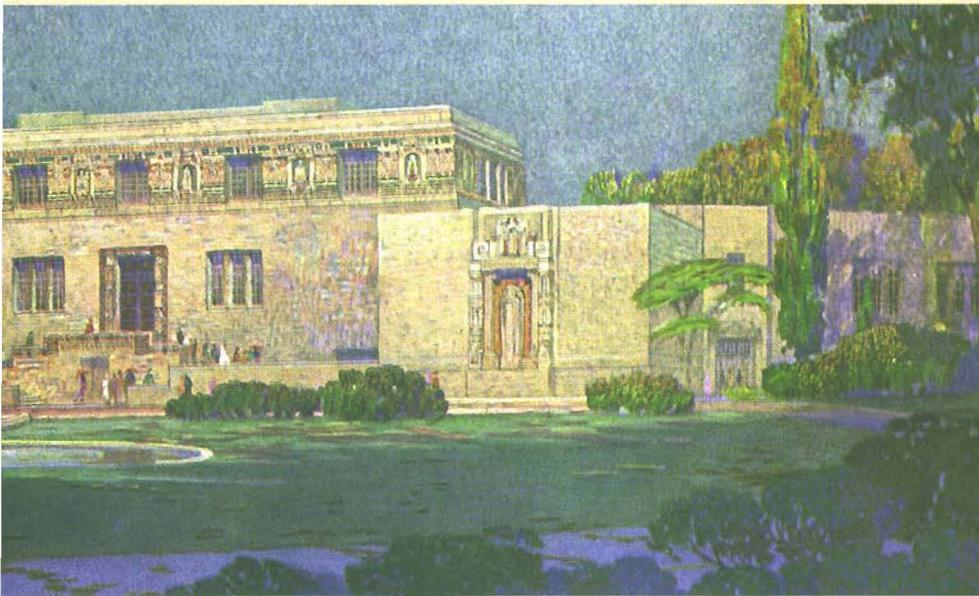
to glazed terra cotta. Historically, the use of color has been common when casting concrete; powdered mineral-oxide pigments were, and are, used to tint entire cast pieces in various shades. But the precise, ornamental effects of colored cast stone that were created by the Cement Stone and Supply Company took the process to an apparently unprecedented new level by combining colored, patterned elements within larger pieces.

Moreover, in addition to adding pigments, the company introduced another innovation by using crushed colored glass as an aggregate in some of its designs. These tiny translucent shards are quite evident in the Native American motifs on Minisa Bridge and the Art Deco patterns on the WPA Comfort Station in North Riverside Park.

Glass is also believed to have been incorporated into the free-form, sculpted mural that is mounted high above the entrance to the Administration Building of the original Wichita Municipal Airport. The mural was modeled and cast from a watercolor rendering depicting Charles Lindbergh's flight over the Atlantic. Local legend holds that the blue and green tones of the Carthalite in the mural are enhanced with crushed green Mentholatum and blue Phillips' Milk of Magnesia bottles. Documentation of this suggestion hasn't been found, but it is plausible; Mentholatum was invented in Wichita.

## UNIQUE OR ORDINARY? THE OPEN QUESTION

The question that persists, and that our research has not yet answered, is whether similar examples of this intriguing material exist outside of Wichita. After all, this Midwestern city was not the only hub of innovation during the region's explosive growth during the first third of the last century. Maybe there is more undiscovered "magic" hidden out there in plain sight on the prairie. ⑧



WATERCOLOR RENDERING BY CLARENCE S. STEIN, FROM ARCHITECTURE, VOL. LXXII, NO. 5, 1935

### WICHITA ART INSTITUTE (1935)

Architect Clarence Stein of New York City submitted his design for the Wichita Art Institute in 1929. Economic difficulties of the time slowed the project, and the core building was finally constructed in 1935 with the infusion of WPA funds. Nationally known American sculptor Lee Lawrie designed the iconographic relief panels. Several renovations and additions to the building (now Wichita Art Museum) have since engulfed the original structure, and no original architecture survived.



### GRIFFIN ARCHITECTURAL OFFICE (1940)

Wichita architect Garrold Griffin designed this building as his own office. Sanborn Maps of 1950 reveal that the original was only a one-story office building. The present structure includes a large second story apartment. It appears that Griffin added the apartment in the mid-1950s and incorporated the Art Moderne styling throughout, integrating it well with the original office segment. The Carthalite elements on the façade contain very visible crushed glass, including a beautiful purple glass not seen elsewhere. The current owner is Benchmark Land Survey PA.



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