





NATIONAL BUILDING  
ARTS CENTER



St. Louis Building Arts Foundation



**contact us!**

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cover page:

Terra Cotta façade,  
Ambassador Theatre, St Louis. C.W. and  
George L Rapp Architects, 1925-1996  
Winkle Terra Cotta Co,  
George T Ernst Sculptor

this page:

Items in the collection at National Building  
Arts Center (image by Jeff Hirsh, see  
entire photo set at [flickr.com/photos/heff/  
sets/7215763338164263](https://www.flickr.com/photos/heff/sets/7215763338164263))

## OUR MISSION

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**The National Building Arts Center is a unique, emergent study center housing the nation's largest and most diversified collection of building artifacts, supported with a research library offering broad holdings in architecture and allied arts.**

Our collection represents the single largest effort toward understanding the American built environment and the historical process of its creation. The Center strives to use its massive collections to educate the public on all aspects of the building arts from design to fabrication.



Interior of the National Building Arts Center, showing brick collection. (Jeff Hirsh)

## NOT SIMPLY AN ARCHITECTURAL MUSEUM

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Scholars recognize St. Louis as one of the nation's key cities in the development of architectural materials, forms, and styles. Throughout the nineteenth and twentieth centuries, St. Louis was a major manufacturing center for building materials. Manufacturers supplied both local and national markets and played a significant role in the construction of cities and towns during the westward expansion. The Center has a significant array of historic building facades, programs of ornament, and related artifacts representing the entire spectrum of materials, building types and designs. The collection includes historic residential, commercial, industrial, religious, institutional and civic buildings. Most of the collection is custom work designed for specific buildings by noted architects, engineers, and sculptors; the balance includes stock designs offered in catalogues. Work represents St. Louis, Chicago, New York and other major centers of national building culture.



top: entrance frieze,  
Indiana Limestone  
Randall Apartments,  
Lucas & Garrison Ave,  
St Louis, 1892-1974  
Harry Randall Architect

right: Lincoln Trust  
Building, terra cotta  
cornice recovery  
(1983)



The Center's on-going effort towards building a collection of national scope has resulted in the recent transfer of some 1500 artifacts from the Brooklyn Museum in New York to our conservatory. For over 60 years, the Brooklyn Museum has acted as a repository for architectural artifacts recovered from demolished buildings in Manhattan and the Boroughs. Upon hearing of our plans for a national museum, a partnership for preservation was formed. It is our hope to expand this effort by partnering with other institutions to create the nation's finest museum collection and research center for the study of the built environment.

The Center deliberately chose to locate itself in a historic manufacturing facility. The National Building Arts Center occupies the former Sterling Steel Casting Company foundry in Sauget, Illinois (just outside of the industrial giant East St. Louis), where the collections will be interpreted alongside the history of a foundry once part of a belt of St. Louis-area foundries once known as the "Pittsburgh of the West". Opened in 1922 and closed in 2001, the foundry covers 15 acres and includes 13 historic casting, pattern storage and office buildings. Since occupying the Sterling Steel foundry in 2005, the Center has initiated a rehabilitation effort that has preserved the historic character of the buildings so that their past use is emphasized. There are few other industrial preservation projects like this one in North America.



Painting of the Sterling Steel Casting Company foundry as it appeared in 1972. This is the home of the National Building Arts Center.

## EDUCATION

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### **Bringing Our Knowledge to Young People**

The National Building Arts Center long has worked to bring our knowledge and resources to students across the region. In September 2006, we launched a new educational program with 120 students from O'Fallon High School (O'Fallon, Illinois). Using plans, photographs and drawings from our collection, students spent a semester working on art and math-related projects exploring seven selected buildings. We led bus tours and identified speakers to meet with the students and discuss historic preservation, architecture, and careers in related fields. We hosted an exhibit and reception at St. Louis City Hall where the teenagers displayed their scale models, works of art, and their new knowledge.

### **Education at the Conservatory**

Other educational activities have included organizing a bus tour of Saugey's industrial history for the Society for Industrial Archaeology (2006) and tours of our conservatory for the American Institute of Architects St. Louis Chapter (2008), University of Missouri - St. Louis Museum Studies program (2009) and the Illinois Statewide Historic Preservation Conference (2011). We collaborated with the Missouri Botanical Garden's Earthways Center to develop a summer course on building materials for elementary-aged students (2011).

### **Long-Term Goal: Starting a Conservation Education Program**

The Center aims to work with an accredited local university to develop an academic conservation program like none other in the country. Our artifact collection would offer students the chance to learn conservation techniques for nearly every historic building material found in North America, while our library offers specialized primary sources essential for conservation knowledge. There are few developed conservation programs in the United States, and none has access to a vast study collection.



top: Earthways Center students visit the conservatory (2011)

middle: O'Fallon Township High School students display their model (2006)



bottom: visitors inspect Center collection items on a 2013 visit.



## **Major Exhibitions on Architectural Materials**

Although the dream of mounting exhibitions at the Center requires additional funding, we have not waited to find venues for exhibitions based on our collections and scholarship. In 2004, we co-curated and were the primary lender to the exhibition *Brick by Brick: Building St. Louis and the Nation at the St. Louis University Art Museum*, which has been the most comprehensive exhibit on St. Louis brick to date. In 2000, we curated *The Winkle Terra Cotta Company: Architectural Art from the Ambassador and Comet Theaters at the Sheldon Art Galleries*. We have found that we are the only entity working to create educational exhibitions on St. Louis' building arts.

## **Installations Across the Region**

The Center makes its materials available for short-term or long-term installation, so that the public can interact with our artifacts across the region. Currently, we are facilitating the installation of cast iron storefronts in the reconstructed *Museum of Westward Expansion* as part of the *City+Arch+River* project at the *Jefferson National Expansion Memorial*.

Other locations where artifacts from our collection can be seen include the *Missouri History Museum*, *Missouri Botanical Garden*, *Sheldon Art Galleries*, *Centene Center for the Arts* and the *Charles K. Knight Educational Center at Washington University in St. Louis*.

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## **LIBRARY AND ARCHIVES**

Our research library holds more than 300,000 items related to Architecture, Industry and the allied arts in single titles, periodicals, primary documents, construction drawings, and trade catalogs. Special collections include original source material from numerous manufacturers of building materials, and an estimated 6,000 photographs and prints. The library also contains a substantial St. Louis component with many rare and unique books and manuscripts. Records of the *United Railways Co.* are the Archives' largest single holding of St. Louis material; records include correspondence, photographs, and an estimated 20,000 original linen drawings documenting the manufacturing of streetcars, construction of buildings and bridges, and the laying of some 450 miles of track.

## MATERIAL COLLECTIONS

### ARCHITECTURAL CAST IRON

By 1885, St. Louis had become the center of architectural cast iron production in the United States. The city's proximity to Missouri's Iron Mountain (the largest known deposit of iron in the U.S. at the time), coupled with St. Louis' river and rail transportation networks, allowed cast iron to become a major export to developing cities and towns throughout the south and the west. Cast iron building fronts in the collection were manufactured in St. Louis from 1840 to 1916 and represent work produced by St. Louis's nine major architectural iron foundries. Designs span the early Greek Revival period through the Arts and Crafts era. The collection encompasses a variety of architectural castings, structural components, and municipal castings including some of the largest single-piece ornamental castings ever created. The collection includes over 100 complete cast iron storefronts manufactured by the following foundries: T. R. Pullis & Sons; Pullis Brothers; J. Christopher & Company; Christopher & Simpson; St. Louis Architectural Iron Company; Globe Iron & Foundry Company, Gerst Brothers Manufacturing; Scherpe & Koken; Scherpe Koken & Graydon; Shickle, Harrison & Howard; McMurray & Judge, McMurray-Smith-Judge; Union Iron & Foundry.



Cast iron storefront from 904 S. 4th Street, St. Louis (1876)  
J. Christopher & Co. Architectural Iron Works

### WROUGHT IRON

This collection includes several hundred examples of structural and ornamental wrought iron work made for a variety of applications. Featured in this collection are staircase railings from the 1902 Missouri Pacific Building and four pair of monumental gates from the original entrance to the Missouri Botanical Garden.

## STRUCTURAL STEEL

The construction of the Eads Bridge (1869-1874) connecting St. Louis and East St. Louis marked the world's first use of steel as a primary structural material. The Eads Bridge opened the era of steel-framed buildings, seen in St. Louis and across the world. St. Louis became a pioneering city in the use of steel for the construction of skyscrapers and industrial buildings. The collection includes over 200 examples of nineteenth and early twentieth century structural steel from historic bridges and buildings, from sources including the rolling mills of Andrew Carnegie and fabricated in St. Louis and East St. Louis structural shops. Examples include hot riveted flange plate and splice plate columns, girders, lintels, base plates, pin truss components and special fittings recovered from the 1894 Century Building in St. Louis. A major highlight is the complete vaulted atrium dome from the 1902 National Bank of Commerce building in St. Louis.

Structural Steel Columns, Carnegie Steel-American Bridge Co.  
Century Building, St. Louis, 1896-2004  
Rader, Coffin and Crocker Architects



## ARCHITECTURAL BRONZE & ALUMINUM

The collection includes many examples in non-ferrous metals created by major and minor foundries in both St. Louis and Chicago.

## ARCHITECTURAL SHEET METAL

St. Louis became the world's largest manufacturer of ornamental facades made of galvanized sheet iron. This type of metalwork was dominated by Mesker & Brother (Bernard and Frank Mesker). The technique, following traditional repoussé, created ornamental designs in relief by hammering malleable metal from the reverse side. The Meskers produced monumental works of architecture in classical designs using large mechanical presses developed during the Industrial Revolution. Today more than 3,400 Mesker facades (most installed on commercial buildings) have been identified in some 1,400 American towns. The Foundation owns numerous examples in both ferrous and non ferrous metals, including a complete cornice from the former Gaslight Square in St. Louis.

## ARCHITECTURAL TERRA COTTA

Terra cotta represents the largest component within the collections. Terra cotta facades include many complete elevations ranging from revival styles through Art Nouveau and Art Deco periods, in addition to several thousand examples of single and multiple element designs, produced from 1860 through 1950. Highlights from this material group include several complete movie palace facades and numerous large programs of ornament from major late 19th and early 20th century skyscrapers. Terra cotta work features designs by noted sculptors, executed by both the Winkle Terra Cotta Company and St. Louis Terra Cotta Company, as well as Northwestern, Midland and American Terra Cotta of Chicago; Atlantic Terra Cotta of Perth Amboy New Jersey and New York Architectural Terra Cotta Company of New York City.



Terra Cotta details from Missouri Pacific Building (also see next page)





top right: Ambassador Building, C.W. and George L Rapp Architects (1925-1996). The largest architectural terra cotta recovery in history.

bottom right: recovering terra cotta from the Ambassador Building

top left: Missouri Pacific Building (Buder Building) 1902-1984 William Albert Swasey Architect

bottom left: Terra Cotta and Missouri Red Granite entrance, Winkle Terra Cotta Co



Title Guaranty (originally Lincoln Trust) Building, St Louis (1897-1983). William Sylvester Eames and Thomas Crane Young Architects, Winkle Terra Cotta Co

## ORNAMENTAL BRICK

St. Louis grew to become the nation's largest manufacturer of face and ornamental brick with over 50 plants within the city limits including the colossal Hydraulic Press Brick Company, which by 1907 operated 22 plants throughout the Midwest and Eastern United States. Hydraulic became the largest and most innovative brick company in the world. The collection contains more than 40,000 ornamental dry press brick in hundreds of designs comprising hundreds of façade programs, including entrance, window and cornice work. A recent transfer to the foundation's library includes records and archives from Hydraulic Press Brick dating to the company's incorporation in 1866.



Ornamental Dry Pressed Brick, c. 1880  
Hydraulic Press Brick Co



## NATURAL STONE

Works are executed in: Missouri and Indiana limestone; Missouri and other domestic granites; marble from Georgia and other states, as well as red sandstone imported from Lake Superior. A recent donation includes several hundred examples of carved ornaments from New York City brownstones. Included in this collection are numerous monumental entrances, columns, friezes, reliefs, and figural sculptures from both major and minor buildings constructed between 1840 and 1930. Highlights include several complete facades, including the monumental marble entrance from the demolished Century Building (St. Louis, 1896, Rader, Coffin and Crocker Architects - photos below).



top: arch deconstruction

below: main elevation, stone recovery in progress.

## CAST STONE

This often overlooked material was successfully developed in St. Louis as an alternative to natural stone. Largely the work of Algonite Stone Manufacturing Company, algonite was used in the construction of many important buildings locally and shipped throughout the south and the west. Featured examples include a complete façade from Gaslight Square in St. Louis and four monumental 23-foot columns from a commercial building.

## BUILDERS HARDWARE

Hardware includes thousands of examples of doorknobs, mechanisms, hinges, and related fittings in bronze, brass, cast iron, wrought iron and specialty alloys manufactured from 1830 to 1950. This collection includes numerous examples from the major New England hardware manufacturers. Featured examples include designs created by noted American architects. The foundation recently received an outstanding collection of over 950 rare antique doorknobs from a prominent New York collector.

## ECCLESIASTICAL

The collections include a wide variety of liturgical artifacts recovered from former Catholic churches in St. Louis. Items include high altars & altar rails, statuary, water fountains, etc. in Gothic, Renaissance and Moderne styles created by noted sculptors. Materials include items in bronze, wood, exotic marbles and ceramic mosaics. Featured in the collection include works by noted sculptor Joseph Conradi.



THE CENTURY BUILDING, NORTH AND OLIVE STREETS, ST. LOUIS, MO.  
BARBER, CHASE & CONNER, ARCHITECTS, CHICAGO, ILL.

Preconstruction rendering of the Century Building.



## SGRAFFITO

The collections include the complete sgraffito façade of the Rivoli Theatre, a former movie house which had been one of a string of theaters built by Universal Film Company in the old theatre district along Sixth Street in St. Louis. Examples of the technique are rare in the United States.

Photos: Rivoli Theatre, 210 N 6th St, St Louis  
1922-1982  
Sgraffito Façade, Frank Seifert Sculptor



Wagoner Mortuary, 3621 Olive St,  
St Louis (1905-2002) F.D. Bonsack  
Architect  
Indiana Limestone and Cast Iron  
window units, Art Glass Mosaic  
signage

## LIGHTING

Although underdeveloped in terms of actual artifacts, our library contains the largest archive of American lighting design, containing an estimated 40,000 original drawings from the nation's largest manufacturer, the Guth Lighting Company of St. Louis.

## GLASS COLLECTIONS

Our collection includes numerous examples of art and stained glass as well as molded glass produced for a variety of architectural uses. Featured in this collection is the vaulted glass atrium dome of Holophane glass recovered from the 1902 National Bank of Commerce in St. Louis.

## WOODWORK

Includes a substantial representation of various elements including doors, window units, staircases, etc. from the Early Settlement period through the Moderne styles. Featured items include complete shop interiors and paneled rooms in both native and imported woods.

## ELECTRICAL

The collection includes many examples of early equipment and precision instruments for electrification and metering of buildings. Featured items include the former museum collection from Kansas City Light & Power.

## SIGNAGE

The collection encompasses a variety of materials used in construction of signs, including porcelainized neon, vitrolite, terra cotta, cast iron, bronze, and stone.

## VITROLITE

Vitrolite, an often-colored structural glass used as both interior and exterior cladding, can be found among our treasures. Our collection includes a Fannie Mae Candies corner shop front from Elmhurst Illinois, numerous Egyptian-inspired pieces from the showroom of the renowned Hadley-Dean Glass Company, the Pope's Cafeteria sign and a collection of color samples from PPG and Sani-Onyx. The Comet Theatre façade has string courses of vitrolite as well.



Hadley-Dean Building entrance lobby, clad with etched and painted vitrolite panels before their removal in 2005.

## CLAY TILE ROOFING

Hundreds of examples of clay tile roofing material date from the earliest tile makers in the United States to products in current production. The first manufactured clay tile in the United States was made by a St.. Louis Company in the 1860's; by 1900, St. Louis had become the nation's second largest producer.

## ELEVATORS

Collections include examples of early machinery, switch gear, controllers, doors, gates, and lighting of various manufacture including Otis, Houghton, Smith-Hill, and Miller. Most notably in the collection are several hand powered freight elevators and a complete Otis open cage elevator car.

## SHOPS

Collections comprise 19th and early 20th century shops and production line machinery, related tools and equipment. Examples include: 1) the woodworking shop from the St. Louis Manual Training School (primarily early Hall & Brown professional production machinery); 2) the stone working machinery from the Shaw Marble Company (formerly Schreiner Marble & Tile Company); 3) the streetcar blacksmith shop of St.. Louis' United Railways Company; 4) the metalworking shop of the Bayer Company which was the city's last overhead belt driven shop; and 5) the shop of Henry Kretzer's St. Louis Lightning Rod Company. Today Kretzer is recognized as the father of modern lightning protection. The shops are currently in storage awaiting set up and installation at the conservatory.

## TRADE UNIONS

Building trades unions are represented in extensive library holdings as well as in special collections of historic artifacts and regalia related to the building trades in the St. Louis area.

## BACKGROUND OF THE COLLECTIONS

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The Center's collection of architectural artifacts had its start in the early 1970s when Larry Giles opened a business in Souland rehabbing houses and salvaging house parts. His appreciation of the city's historic architecture led him to tackle the recovery and preservation of significant artifacts from large demolition projects in the Central Business District. As his collections grew, so did his commitment to establishing a public museum and study center now in progress of realization.



Recovery of entrances on State Hospital wing (1906).