

History of New York City Architecture

c. 1865-1885

The Age of Enterprise

Part 1

Iron transforms the building
industry

3 types of iron alloys

- Wrought iron
 - Carbon content not over 0.035%
 - Good in tension
 - Worked with blacksmith's tools
- Cast iron
 - Carbon content between 2-4% (high)
 - Good in compression
 - Molten iron is poured into forms
- Steel
 - Carbon content between 0.06 – 2% (moderate)
 - Good in tension and compression
 - Can be formed in multiple ways

























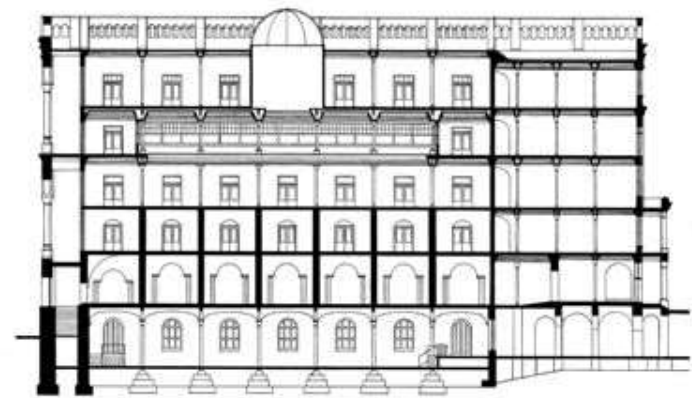






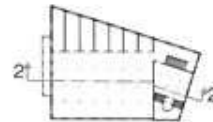


- Cooper Union Foundation Building,
- Frederick A. Peterson, 1853-1859



section 2-2, 1859

scale: 1/8" = 1'-0"
 0" 10" 20"



Foundation Project Cooper Union New York, NY	The Cooper Union for the Advancement of Science and Art Cooper Square New York, NY	DRAWING NO. 1482K 10-20 HISTORIC AMERICAN ENGINEERING RECORD SHEET 35 OF 30 SHEETS
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Cooper Union Foundation Building
 Frederick A. Peterson, 1853-1859

Built in America

The Library of Congress > American Memory Home > Browse Collections

SEARCH

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Features:

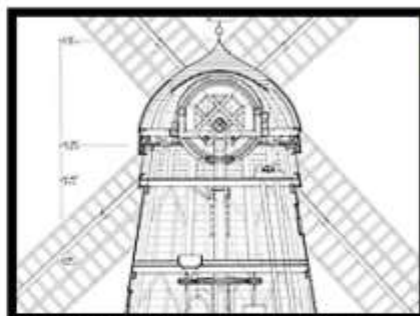
- Gallery
 - [→ HABS/HAER Highlights](#)

Browse Collection by:

- Subject**
- Place

View more collections from the
[Prints and Photographs Division](#)**Collection Connection**

Classroom resources for teachers



Beebe Windmill, Bridgehampton, New York.

[About this image](#)

Built in America

Historic American Buildings Survey/Historic
American Engineering Record/Historic American
Landscapes Survey, 1933-Present

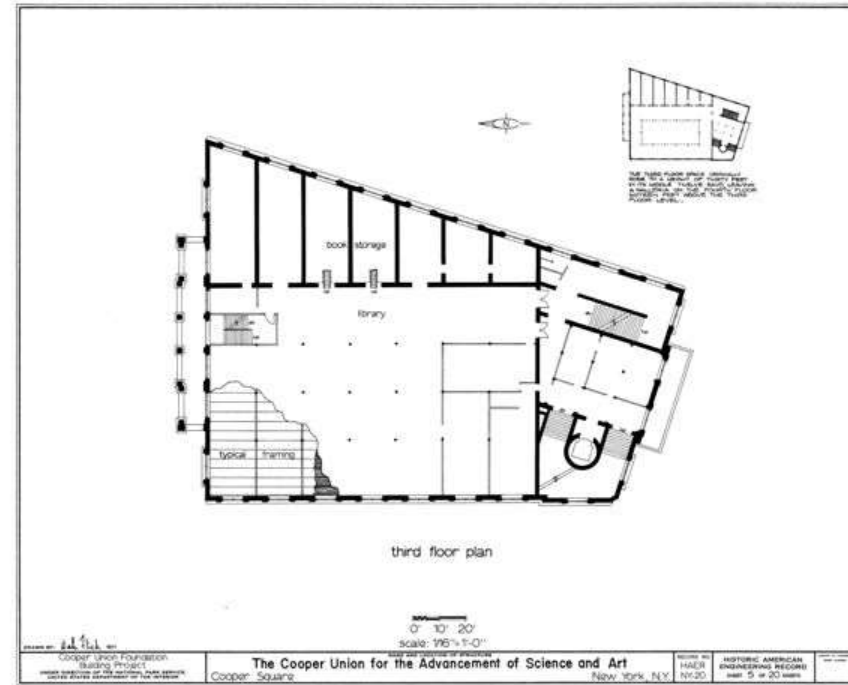
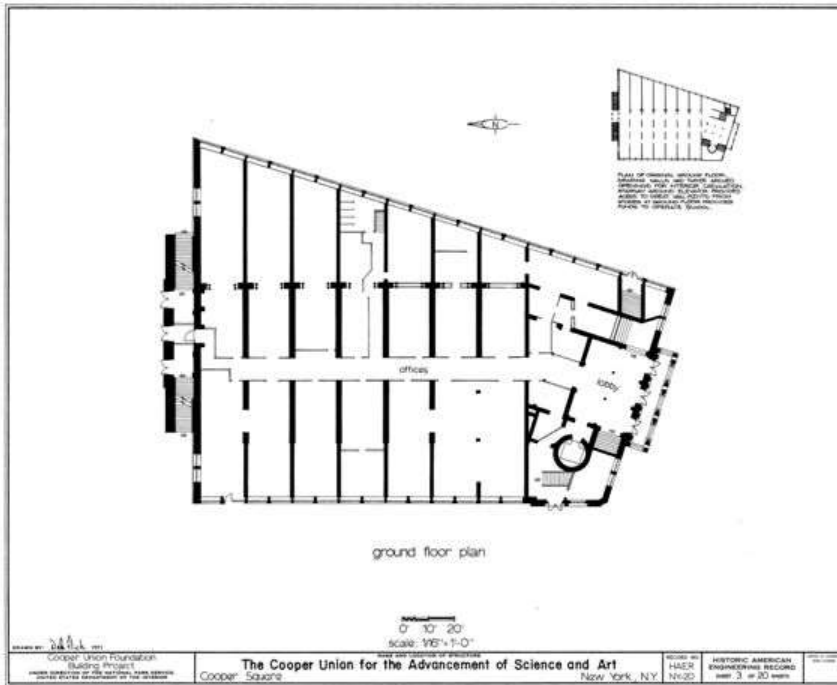
Overview

The Historic American Buildings Survey (HABS) and the Historic American Engineering Record (HAER) collections are among the largest and most heavily used in the Prints and Photographs Division of the Library of Congress. Since 2000, documentation from the Historic American Landscapes Survey (HALS) has been added to the holdings. The collections document achievements in architecture, engineering, and design in the United States and its territories through a comprehensive range of building types and engineering technologies including examples as diverse as the [Pueblo of Acoma](#), [houses](#), [windmills](#), [one-room schools](#), the [Golden Gate Bridge](#), and buildings designed by [Frank Lloyd Wright](#). Administered since 1933 through cooperative agreements with the National Park Service, the Library of Congress, and the private sector, ongoing programs of the National Park Service have recorded America's built environment in multiformat surveys comprising more than 556,900 measured drawings, large-format photographs, and written histories for more than 38,600 historic structures and sites dating from Pre-Columbian times to the twentieth century.

This online presentation of the HABS/HAER collections includes digitized images of measured drawings, black-and-white photographs, color transparencies, photo captions, data pages including written histories, and supplemental materials. Since the [National Park Service's HABS, HAER, and HALS programs](#) create new documentation each year, digital images will continue to be added to the online collections. The first phase of digitization of the Historic American Engineering Record collection was made possible by the generous support of the Shell Oil Company Foundation.

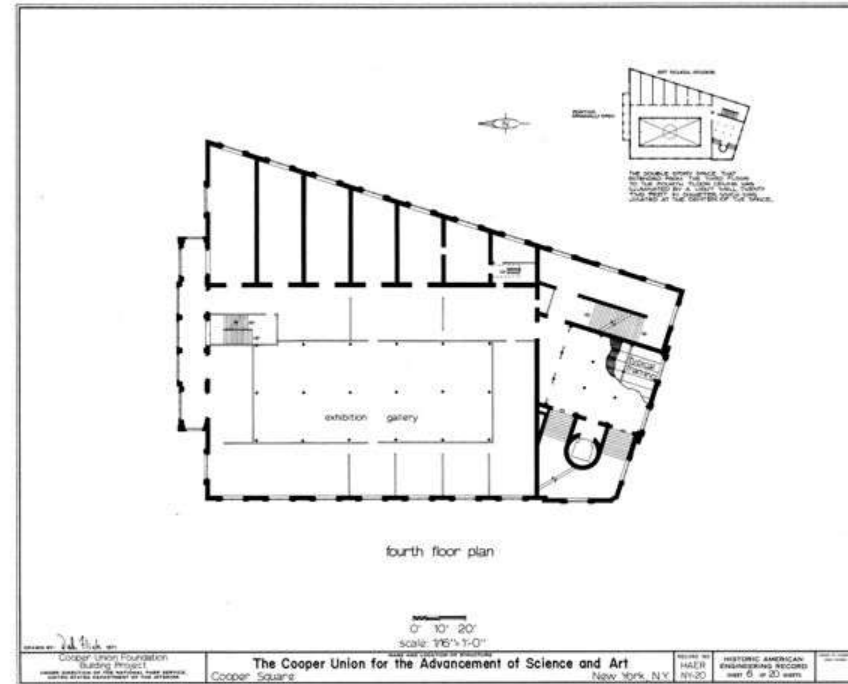
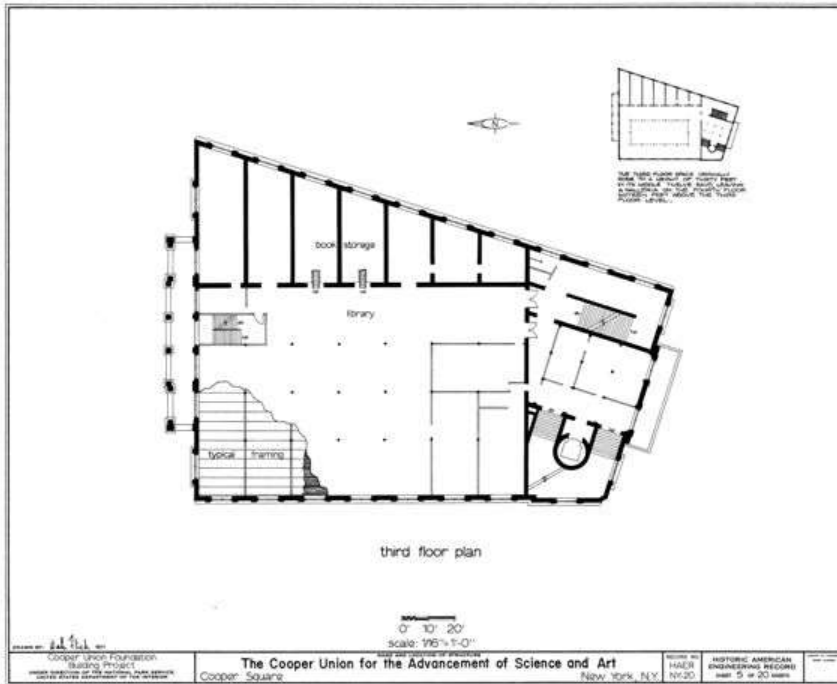
**Gallery**

Historic highlights from all 50 states.



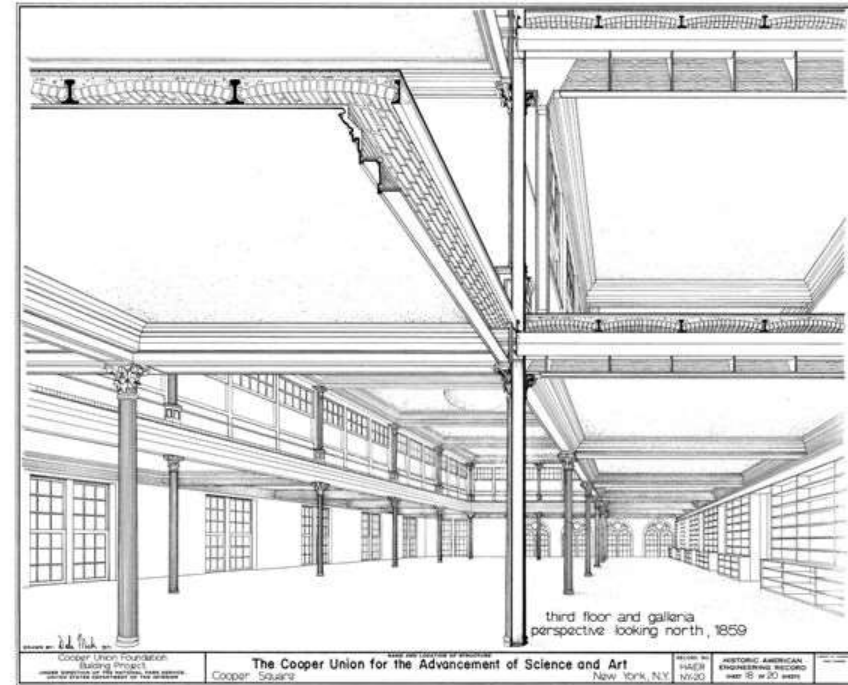
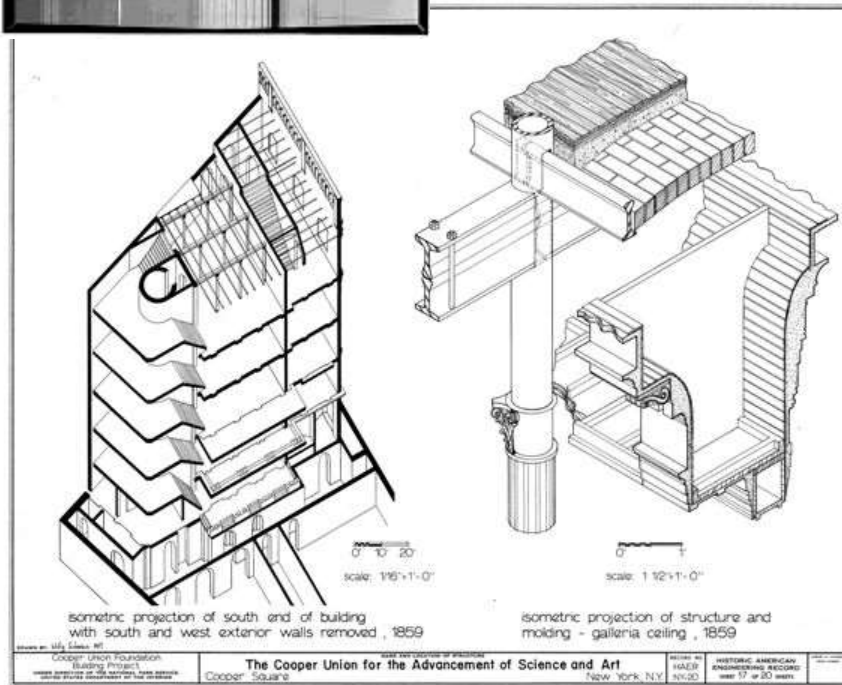
Cooper Union Foundation Building

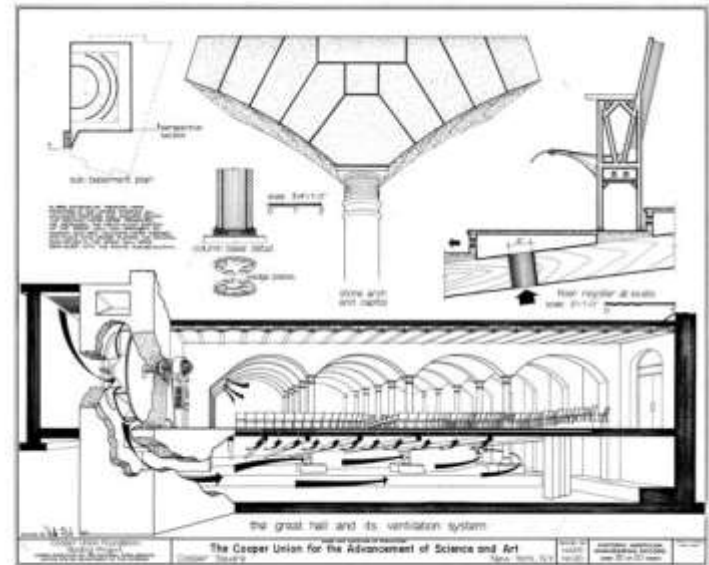
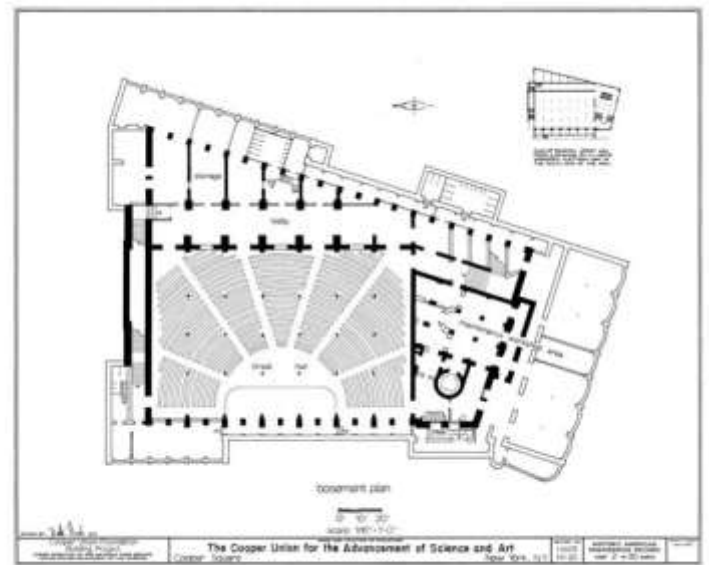
Frederick A. Peterson, 1853-1859



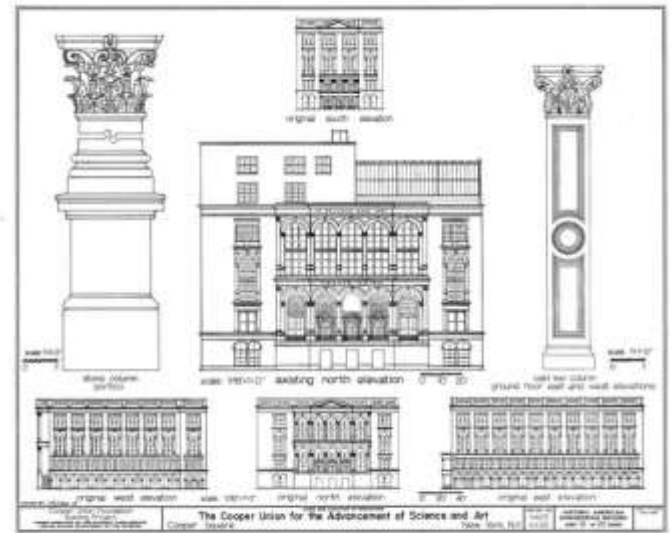
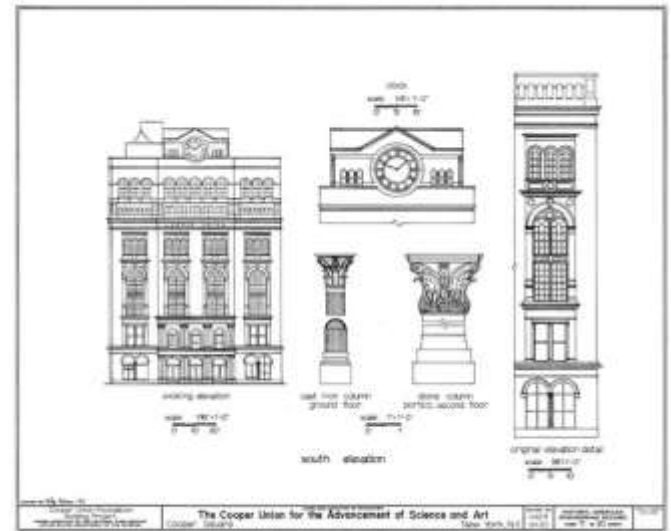
Cooper Union Foundation Building

Frederick A. Peterson, 1853-1859





Cooper Union Foundation Building
 Frederick A. Peterson, 1853-1859

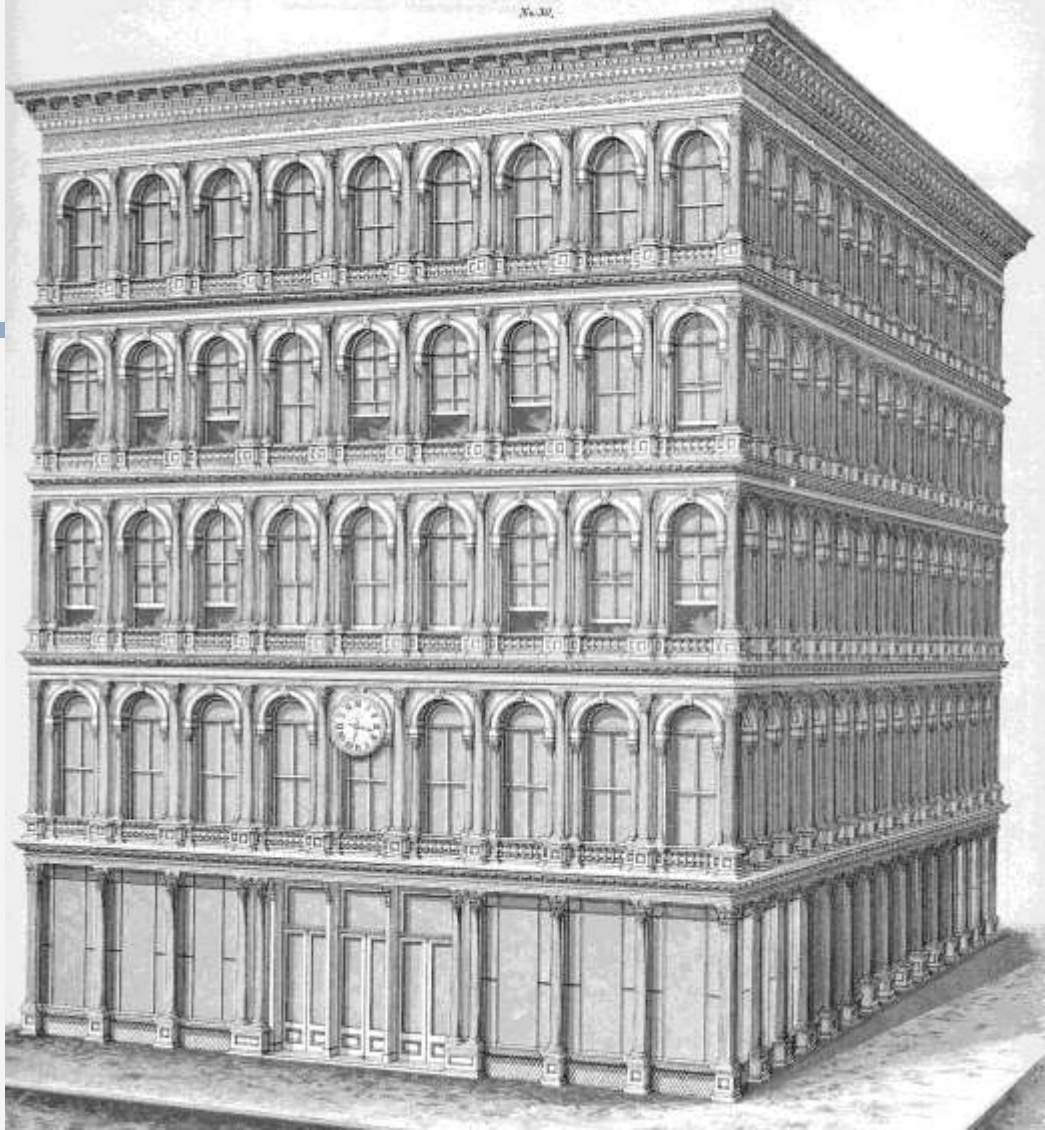


Cooper Union Foundation Building
 Frederick A. Peterson, 1853-1859





■ 63 Nassau St. James Bogardus 1844



- Haughwout Building -- illustration from *Badger's Illustrated Catalogue of Cast-Iron Architecture*

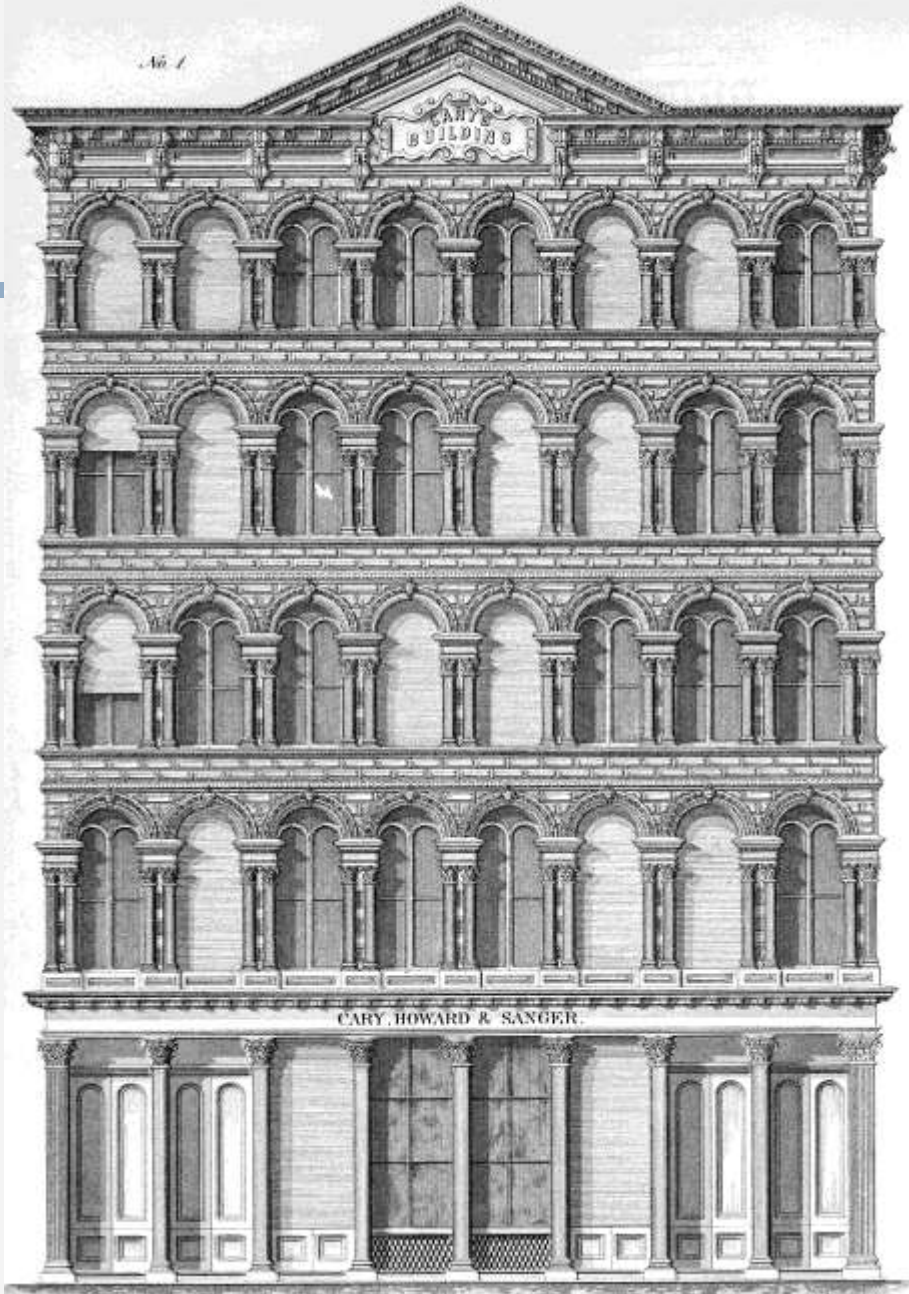


- * Haughwout Building, John P. Gaynor, 1856-7.
Cast iron façade by Daniel D. Badger
Architectural Iron Works



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Cast iron façade by Daniel D. Badger
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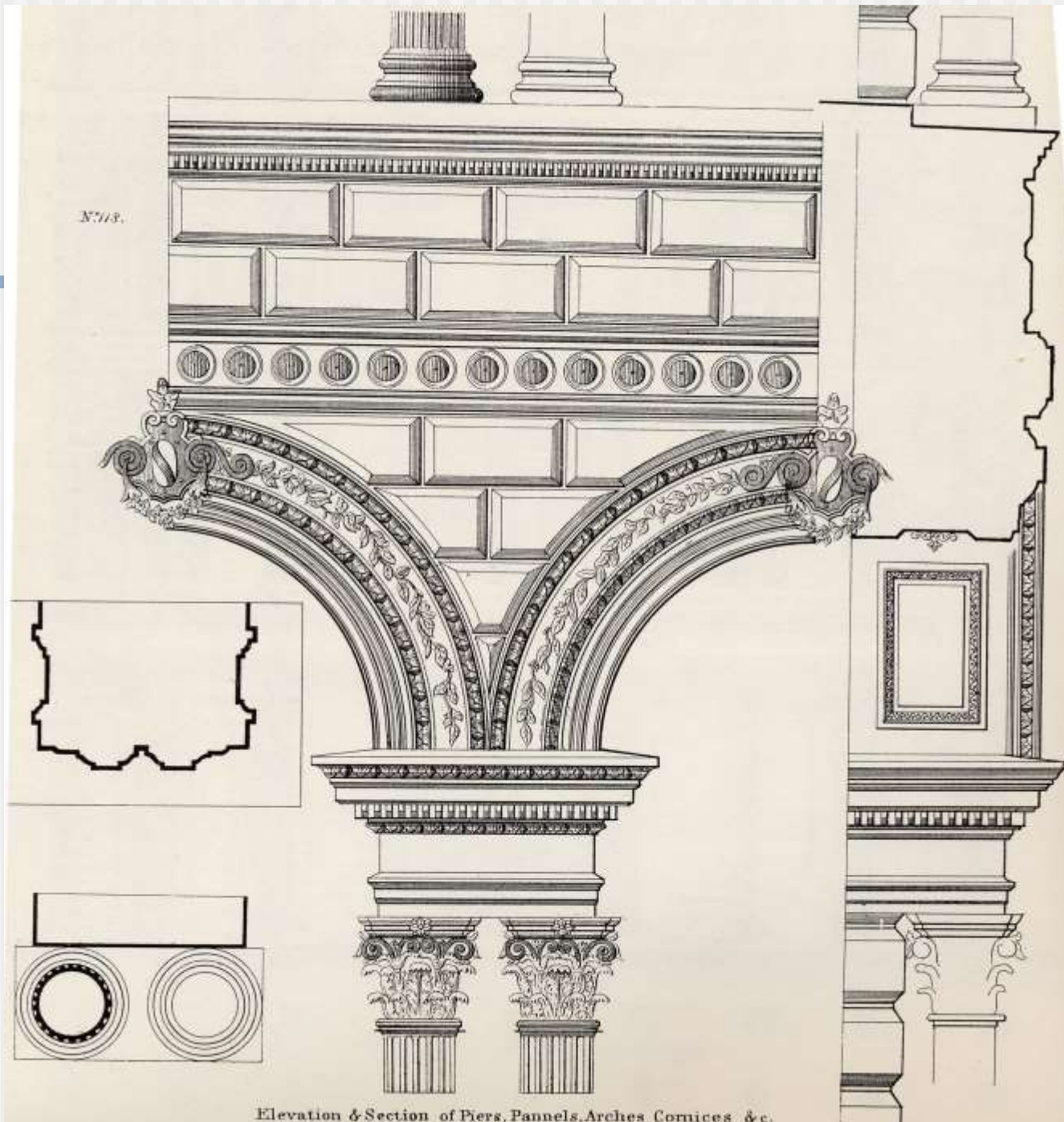




- Cary Building from *Badger's Illustrated Catalogue of Cast-Iron Architecture*



- * Cary Building, King & Kellum, 1856-1857
- Cast Iron facade by Daniel Badger's Architectural Ironworks



N778.

Elevation & Section of Piers, Pannels, Arches Cornices &c.





18.

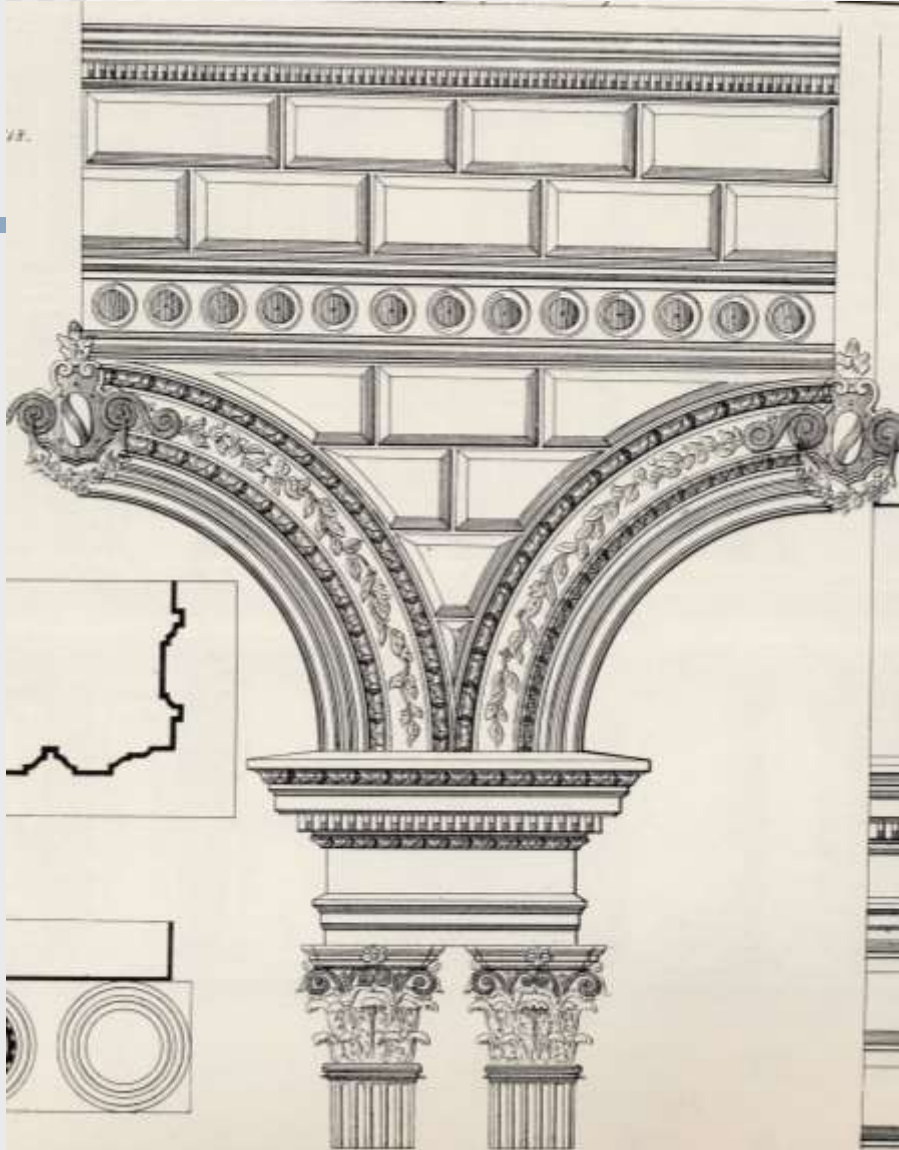






Photo cr: Berenice Abbott, 1936



- Wanamaker Department Store, John Kellum 1859-68



- * Roosevelt Building
- Richard Morris Hunt, 1873-1874















- * Roosevelt Building
- Richard Morris Hunt, 1873-1874



Coalbrookdale Iron Bridge
Abraham Darby

1779



Truss Bridge



Crystal Palace
Joseph Paxton, Engineer, 1851





Photo cr: AA Photo Library

St. Pancras Railroad Station London
Barlow & Ordish, 1864-68



Photo cr: AA Photo Library

St. Pancras Railroad Station London
Barlow & Ordish, 1864-68



Photo cr: WAN

St. Pancras Railroad Station
Barlow & Ordish, 1864-68

London
renovated 2007⁵³



Photo cr: WAN

St. Pancras Railroad Station
Barlow & Ordish, 1864-68

London
Renovation 2007



Photo cr: Victorianweb.org

St. Pancras Railroad Station London
Barlow & Ordish, 1864-68



Photo cr: London Telegraph

St. Pancras Railroad Station London
Barlow & Ordish, 1864-68



Grand Central Depot

John Snook, Architect, Isaac Buckhout, Engineer, 1869-71

Age of Enterprise

Prevalent Styles 1865-1890+

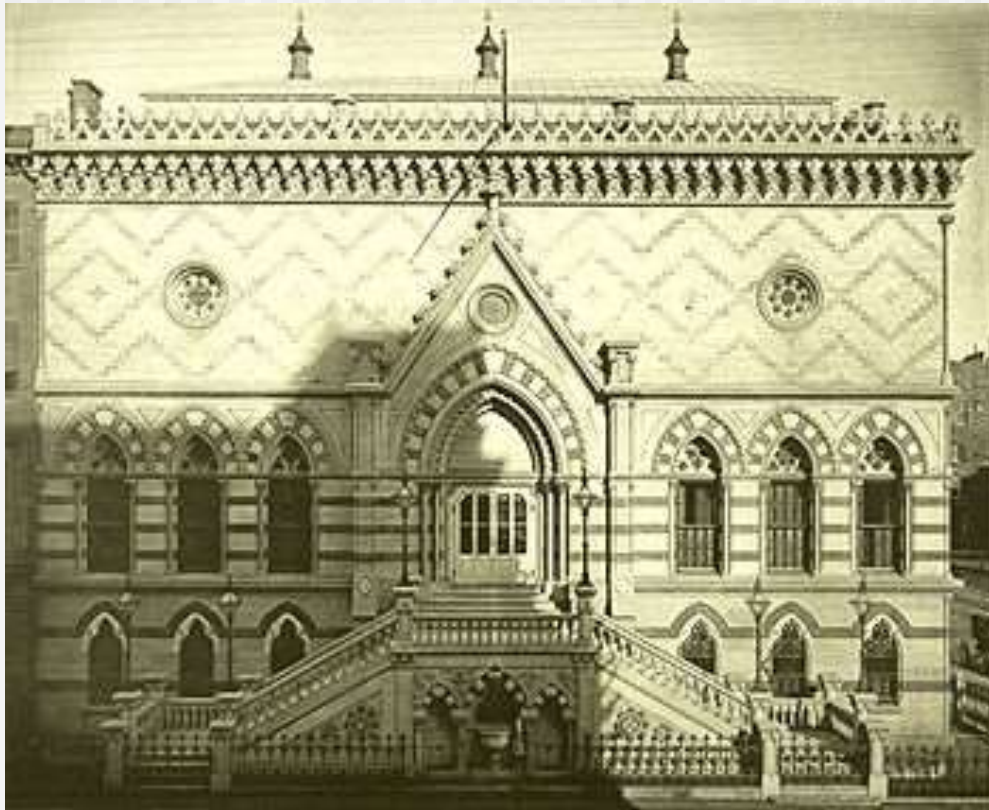
- Second Empire Baroque 1855-1880
- High Victorian Gothic 1860-1880
- Other styles
 - Stick Style (1862-1880)
 - Eastlake 1872-1885
 - Queen Anne 1875-1890
 - Shingle Style 1880-1900
- Romanesque Revival 1880-1895

- Also continuation of Italianate (Renaissance, Classicism)

■ Second Empire Baroque 1855-1880



■ High Victorian Gothic 1860-1880



National Academy of Design, NYC
Peter Bonnett Wight 1863-65

Mercantile Library Brooklyn
1867



Jefferson Market Courthouse
Calvert Vaux & Frederick Withers,

1873-77



Photo cr: Berenice Abbott 1936

Jefferson Market Courthouse
Calvert Vaux & Frederick Withers,



1873₆77



Jefferson Market Courthouse
Calvert Vaux & Frederick Withers,

(Library 1967)
1873-77



High Gothic

Chartres 1194 - 1260

Reims 1211- end of 13thc.,
West façade 14th c. 64

Gothic



Cologne begun 1248

Neo - Gothic



St. Patrick's Cathedral 1858-79



St. Patrick's Cathedral

James Renwick

1858-1879



St. Patrick's Cathedral
1858-1879



James Renwick





- * Villard Houses, Joseph Wells of McKim, Mead & White, 1882-5.



- Palazzo della Cancelleria, Brunelleschi, 1483-1513



• Villard Houses,
Joseph Wells – McKim, Mead & White, 1882-85

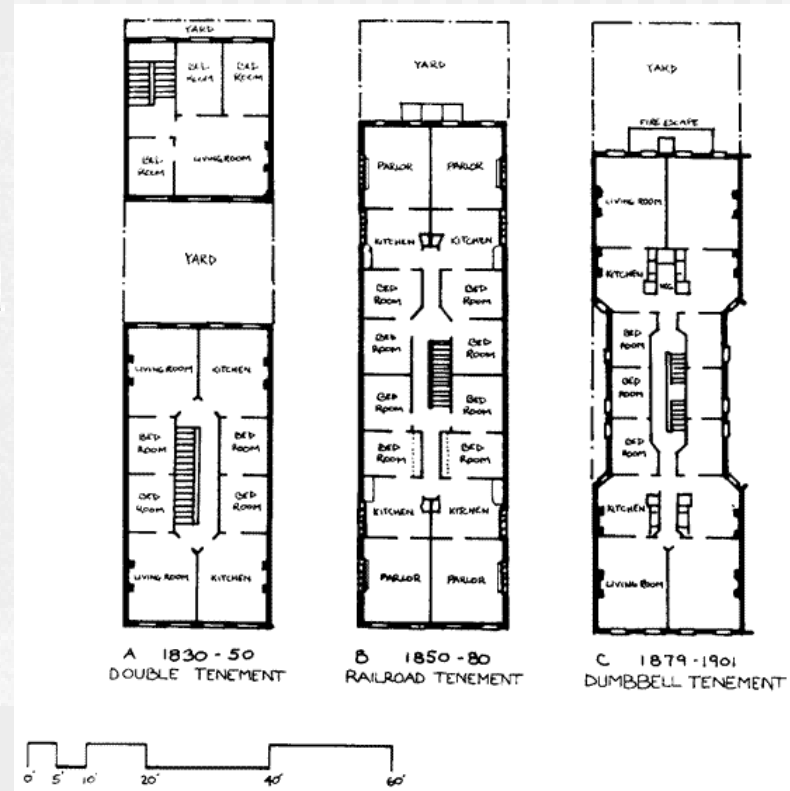


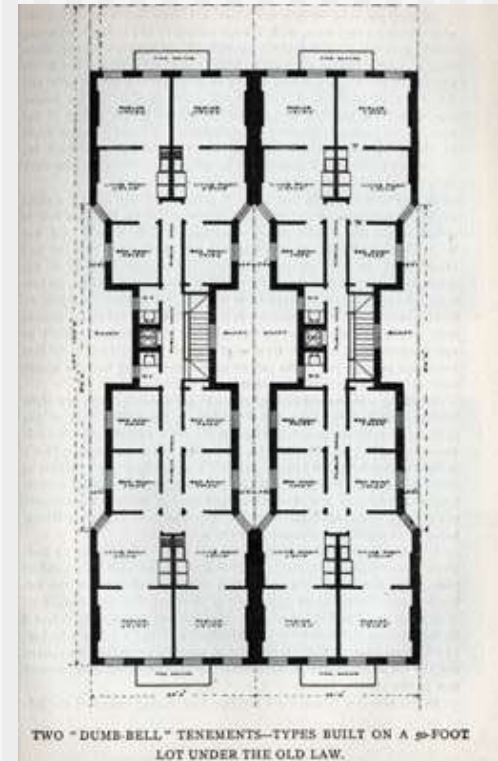
Palazzo della Cancelleria
Brunelleschi, 1483-1513



View fr: Charles Wingate Drawing

Tenement Housing c. 1865



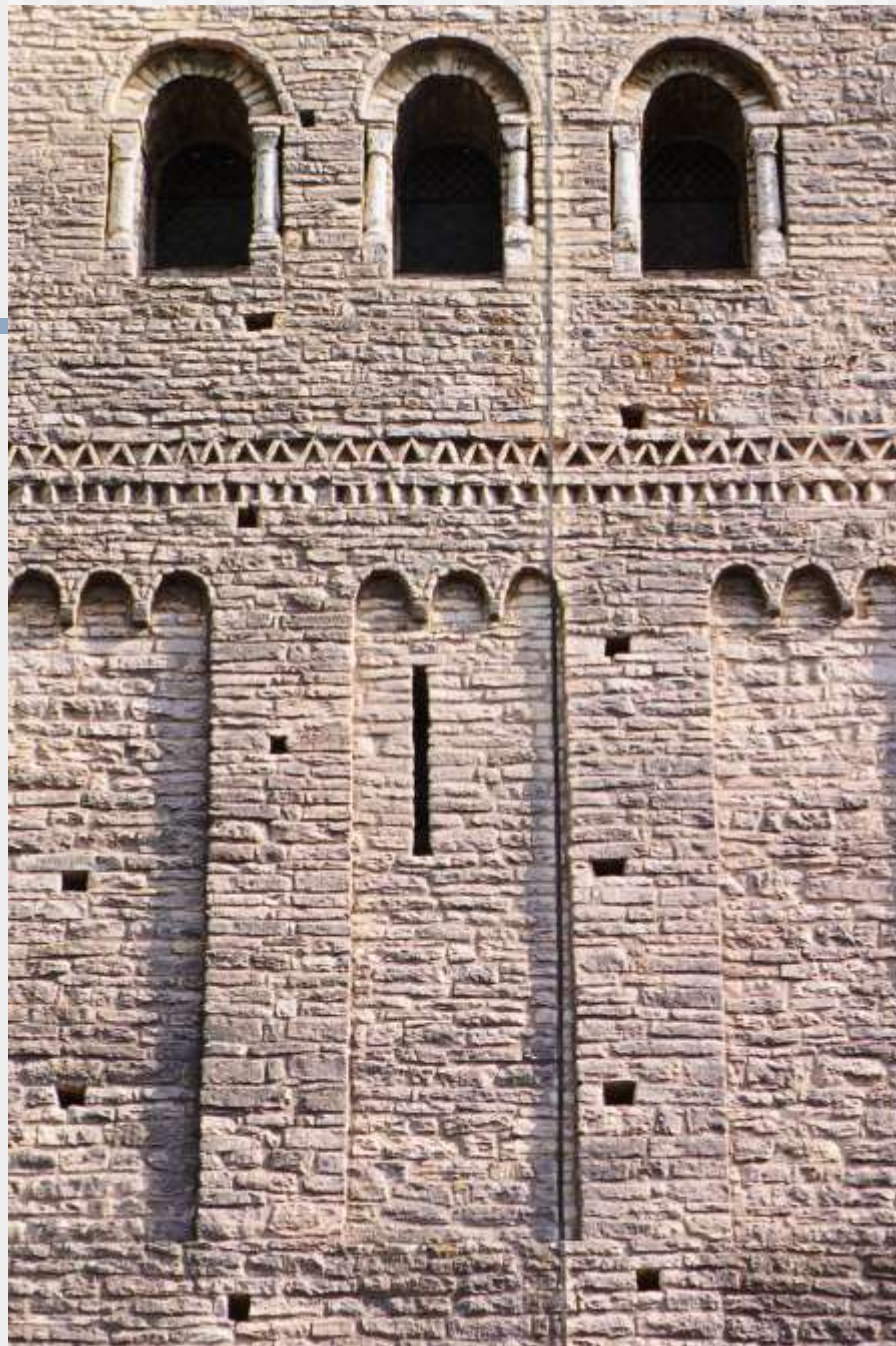


Mulberry St. Lower East Side c. 1900



Romanesque Revival 1880-1895









Romanesque Revival 1880-1895

Characteristics

- Extensive use of masonry “honest”
- Variety of shapes and outlines
- Use of natural polychromy (many colors)
- Contrasting colors and textures
- Round, broad arches framing windows & doors
- Corbels
- Short, robust columns
- Single crowning tower
- Carved, intertwining floral details



- Schermerhorn Building, Henry J. Hardenbergh, 1888-1889.











- De Vinne Press Building, Babb, Cook, Willard, 1885-1886.



- De Vinne Press Building, Babb, Cook, Willard, 1885-1886.



- De Vinne Press Building, Babb, Cook, Willard, 1885-1886.



- Conway's Department Store, originally Wechsler Brothers Block, Lauritzen & Voss, 1891





















- City of Brooklyn Fire Headquarters, Frank Freeman, 1892









- Eagle Warehouse, Frank Freeman, 1893.

