

Great New York City Buildings Few
Guide Books Will Ever Mention

Some of the architectural trends through the centuries:



The Colonial Period
St. Paul's Chapel -
1776

- The Colonial architecture of the Colony of New York



Georgian Federal Style
Museum of the City of New York,

- 18th Century to early 19th Century
- The first “real” American architecture
- Influence by the Georgian architecture fashionable in London at the time.
- Geometric form and harmonious proportion
- Wood and masonry
- Had early 20th Century revivals



Greek Revival
Federal Hall National Memorial

- Became fashionable when the Greeks won independence from the Turks and the Ottoman Empire in the 1820s it sparked a renewed interest in Ancient Greek Architecture



Gothic Revival

St. Francis Cabrini Chapel
Strong Place Baptist

- Evocative of the literary and aesthetic movement of the 1830s and 40s.
- Assumed that the goodness of medieval times could be emulated to instill this goodness on the then present-day wicked.
- 1900 saw a re-revival in educational and religious buildings.



Queen Anne Victorian

The Saitta house, Dyer
Heights Brooklyn, 1899

- Part of the Gothic revival



Italianate/Villa Style

Litchfield Villa in Prospect Park

- Flat roofs, gently pitched
- Marked often by a tall usually asymmetrically placed tower
- Edwin Litchfield's house, influenced the "promenade" that is 3rd Street in Brooklyn, leading to Litchfield's office on 3rd and 5th, and towards his "agency" located at 3rd and 3rd, which we will see later.

The Romanesque Revival of the late 19th Century



Eagle Warehouse Building
1893
Dumbo, Brooklyn
Frank Freeman, Architect

Henry Hobson Richardson (1838-1886)

- Second American Architect to attend the Ecole Des Beaux Arts in Paris.
- Studied under Louis Sullivan.
- Part of the “American Trinity” of architects: Louis Sullivan, HH Richardson and Frank Lloyd Wright.
- Was a mentor to Sanford White of McKim Meade and White.
- Best known for Trinity Church in Boston.
- Absorbed Beaux-Arts lessons and applied them to Romanesque models, not part of the typical Beaux-Arts style, to create his own evolved personal style.
- Had more medieval influences than classical ones.
- Picturesque rooflines
- Rustication and Polychromy
- Semi circular arches and squat columns.
- Influenced Louis Sullivan (“father” of the skyscraper and a prominent figure in the Chicago School... and coined the phrase “form follows function” He then influenced Frank Lloyd Wright.)
- “Richardsonian Romanesque” went out of style after the Chicago worlds fair of 1893.





Trinity Church, Boston, 1872



Palazzo Vecchio

Florence, Italy (1299-1322)



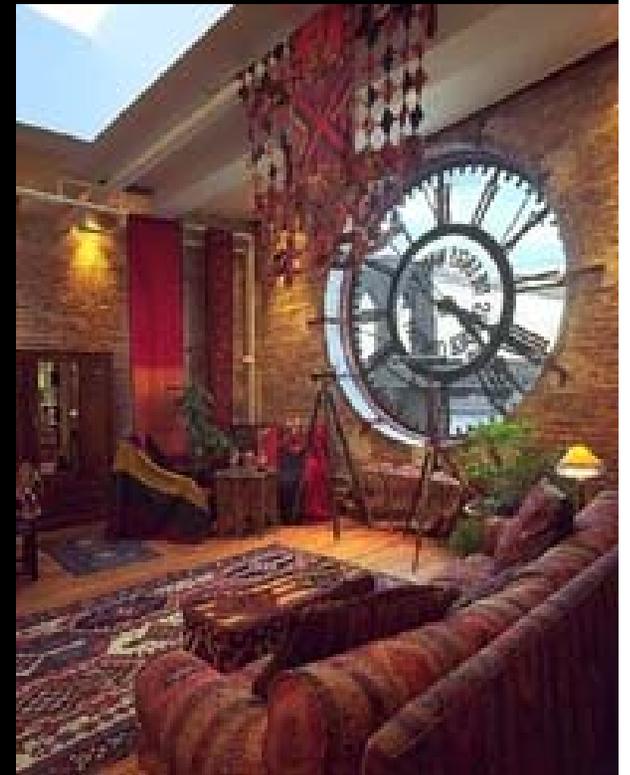
Eagle Warehouse Building

Brooklyn, NY (1893)



Fun Facts:

- Distinctive Richardsonian arch
- Thick walls. Fireproof warehouse for the rich.
- Was built on the site of the “Brooklyn Eagle” Newspaper, for which, Walt Whitman was an editor before he was asked to leave for his anti-slavery views.
- Easily viewed when waiting in line at Patsy Grimaldi’s Pizza in Dumbo.



Clock and Machicolation (murder holes)



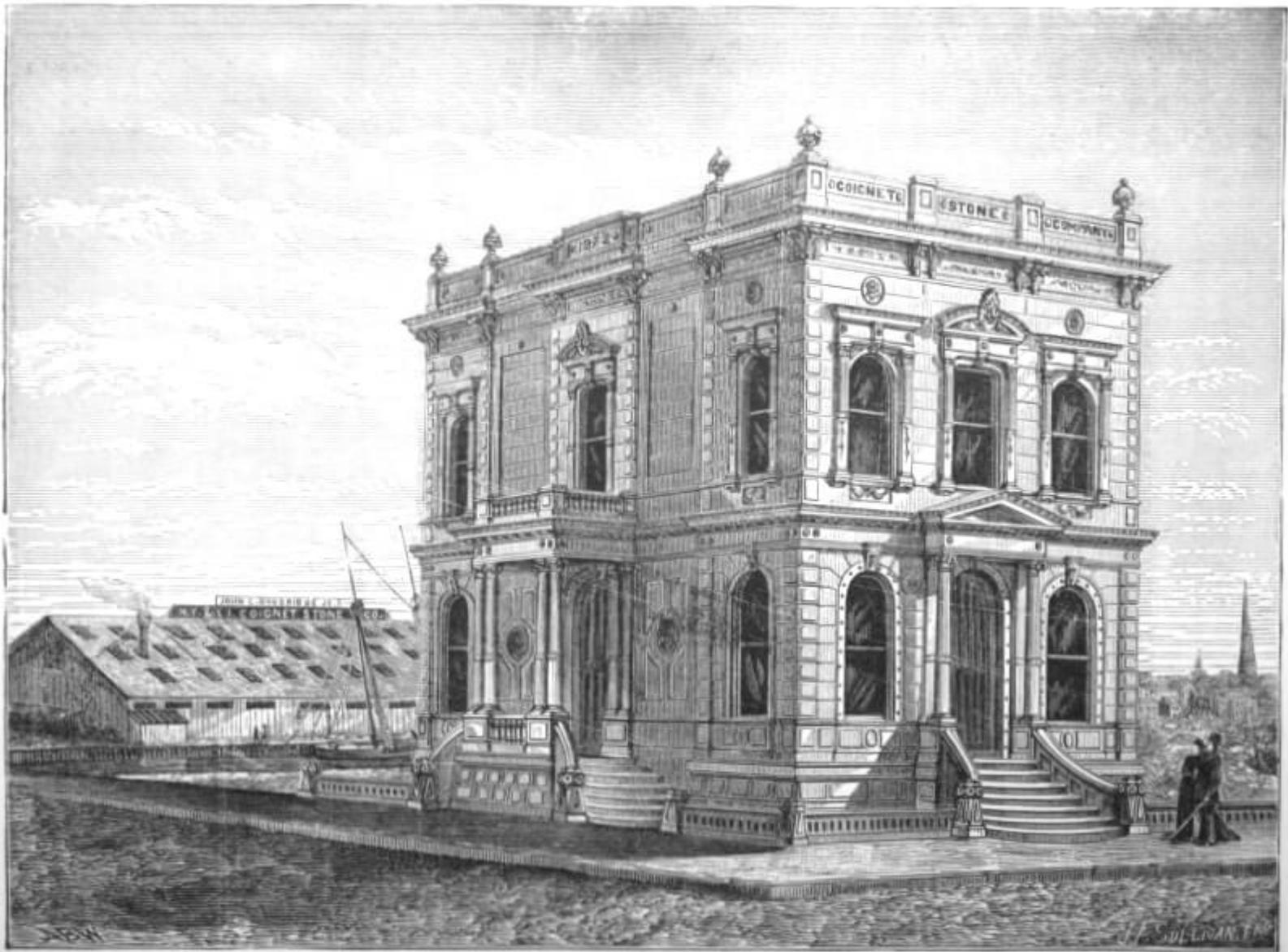
Dragon Detail



Coignet Stone Company Building
1873
Gowanus, Brooklyn
William Field and Son, Architect



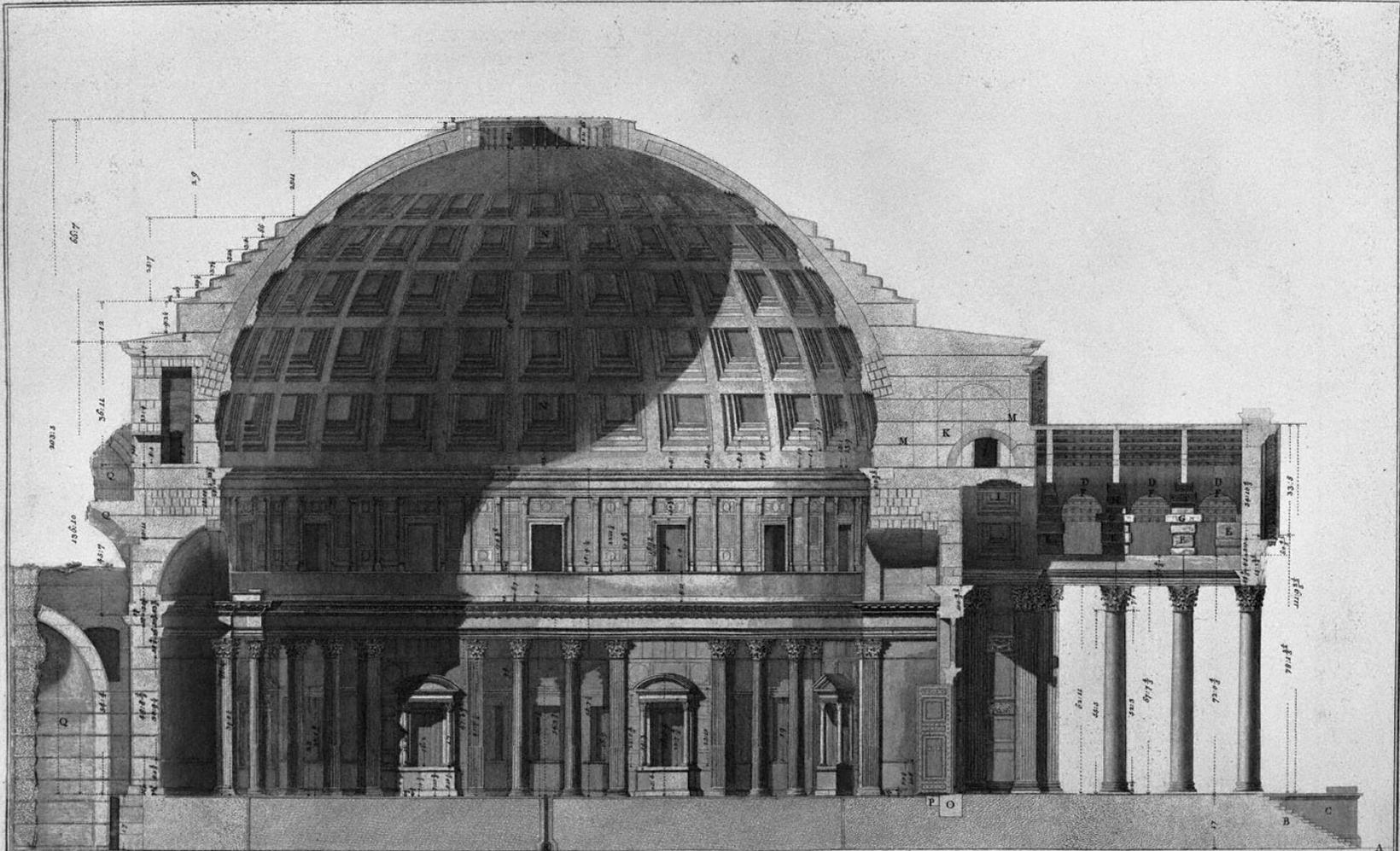
"a pioneering example of concrete construction in the United States"
-Landmarks Preservation Commission (1939 Tax Photo)



Office cor. 3d Avenue and 3d Street, Brooklyn. Built of Beton-Coignet, Winter of 1872-73.



Fully Restored

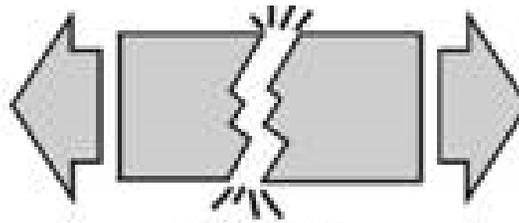


A. Linea del piano antico di Roma. B. Profilo di grandi che circondano il Tempio in ogni lato. C. Profilo di uno di piedistalli nel tempio che rappresenta la gradinata, e nel piano presente vengono larghi il profilo l'altare di quali in ogni è interrotto. D. Muro che traversa l'interno del portico al di sopra delle colonne sopra cui sono appoggiate l'armatura del soffitto all'opposto d'uno degli archi del vestibolo. E. Muro che divide il portico in due parti, e contiene il piano di travertino munito, e il stesso pavimento sopra il quale vengono collocati i basoli per mezzo degli archi. F. Muro che sostiene sopra il propileo G. Muro che sostiene l'arco di ingresso e sopra cui poggiano le traversi. H. Muro che divide il piano del muro in forma di nicchia, e quale vengono appoggiate le travi maggiori del pronao. Nella superficie di quest'opera si comprende che la nicchia di forme si appoggia al muro che sopra raccomandato sulle travi, e che piano sopra di esso. I. Muro che sostiene il soffitto del vestibolo, e sopra cui poggiano le travi del soffitto di bronzo. L. Cassone di marmo che divide in due parti i marmi che sono differenzialmente disposti sopra la porta, e la nicchia del Pronao. M. Profilo di comunicazione alle due colonne. N. Linea di marmo che indica il profilo della gradinata. O. Cassone di marmo che indica il profilo della gradinata. P. Cassone di marmo che indica il profilo della gradinata. Q. Cassone di marmo che indica il profilo della gradinata. R. Cassone di marmo che indica il profilo della gradinata. S. Cassone di marmo che indica il profilo della gradinata. T. Cassone di marmo che indica il profilo della gradinata. U. Cassone di marmo che indica il profilo della gradinata. V. Cassone di marmo che indica il profilo della gradinata. W. Cassone di marmo che indica il profilo della gradinata. X. Cassone di marmo che indica il profilo della gradinata. Y. Cassone di marmo che indica il profilo della gradinata. Z. Cassone di marmo che indica il profilo della gradinata.

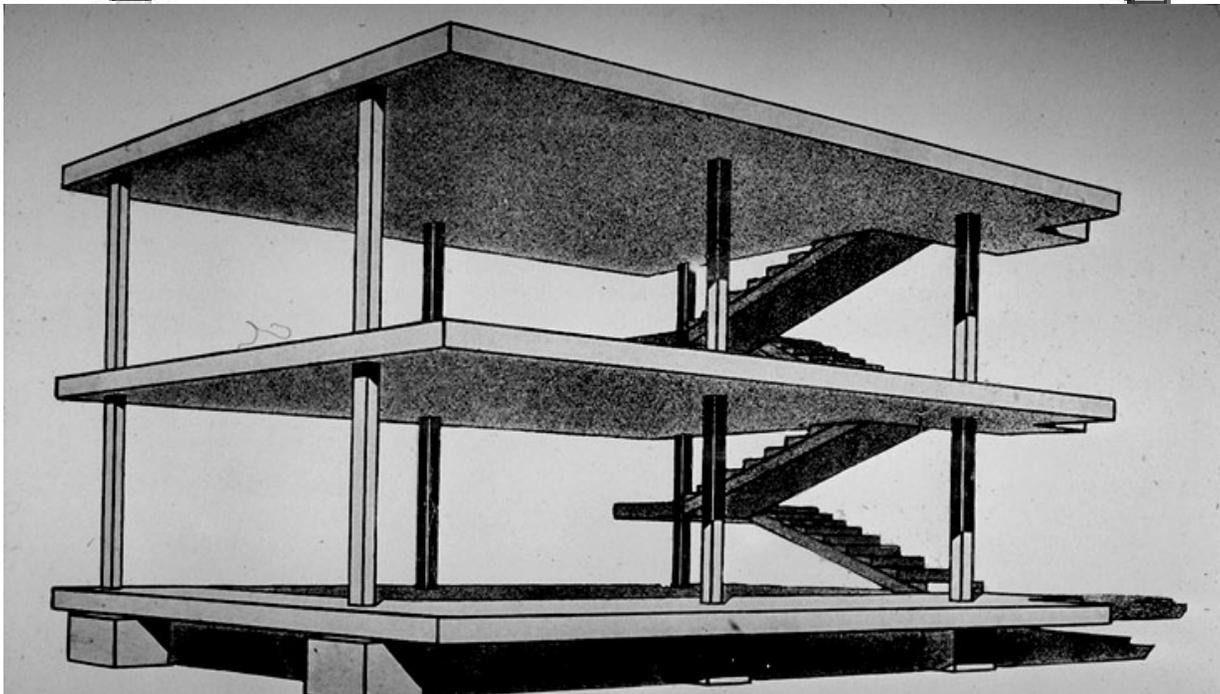
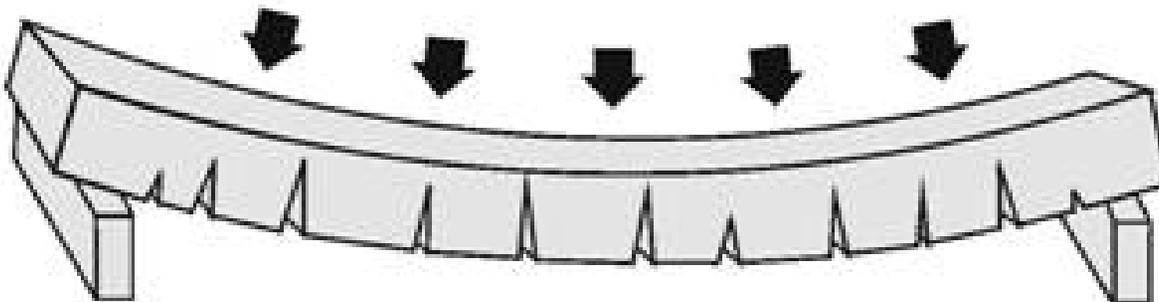
The Pantheon (Rome 118-28) is an ancient example of the use of concrete in architecture



COMPRESSION



TENSION



Reinforced Concrete Fun facts:

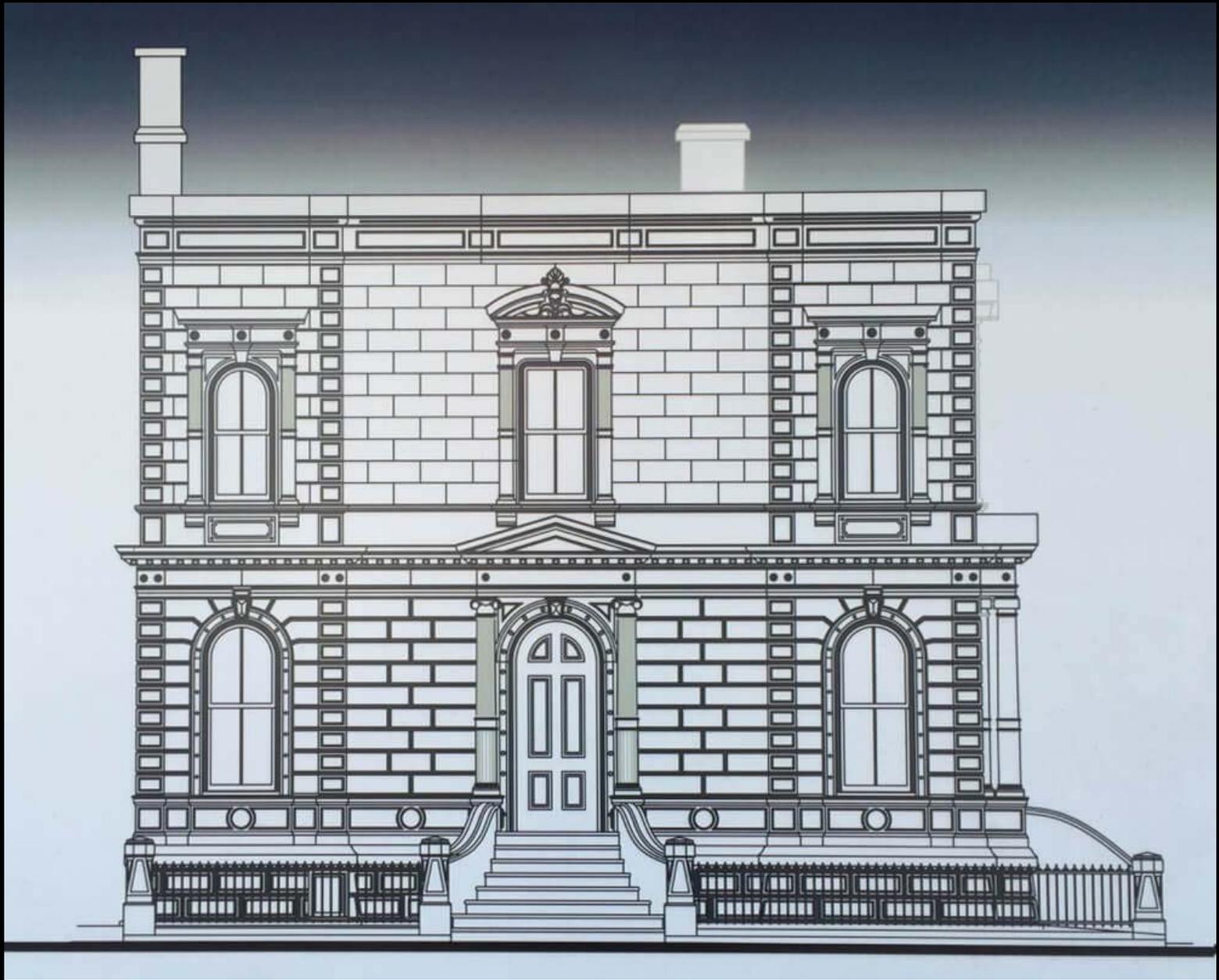
- Originally developed by in ancient times, re-introduced to building technology in the 19th Century.
- Concrete consists of a chemical mixture of cement, limestone, stone aggregate and water.
- Properties of concrete: excellent in compression, fails easily in tension.
- When a load is applied to a concrete slab or beam, the top chord is in compression while the bottom chord is in tension. Steel rebar is introduced into the bottom portion of the member to take the tension load.
- Concrete takes about 7 days to become 90% dry, but 28 days to be 100% dry.
- Slump test is performed on job sites to ensure it has been properly mixed.



Rendering of plans for new Whole Foods on site.



Whole Foods moves in

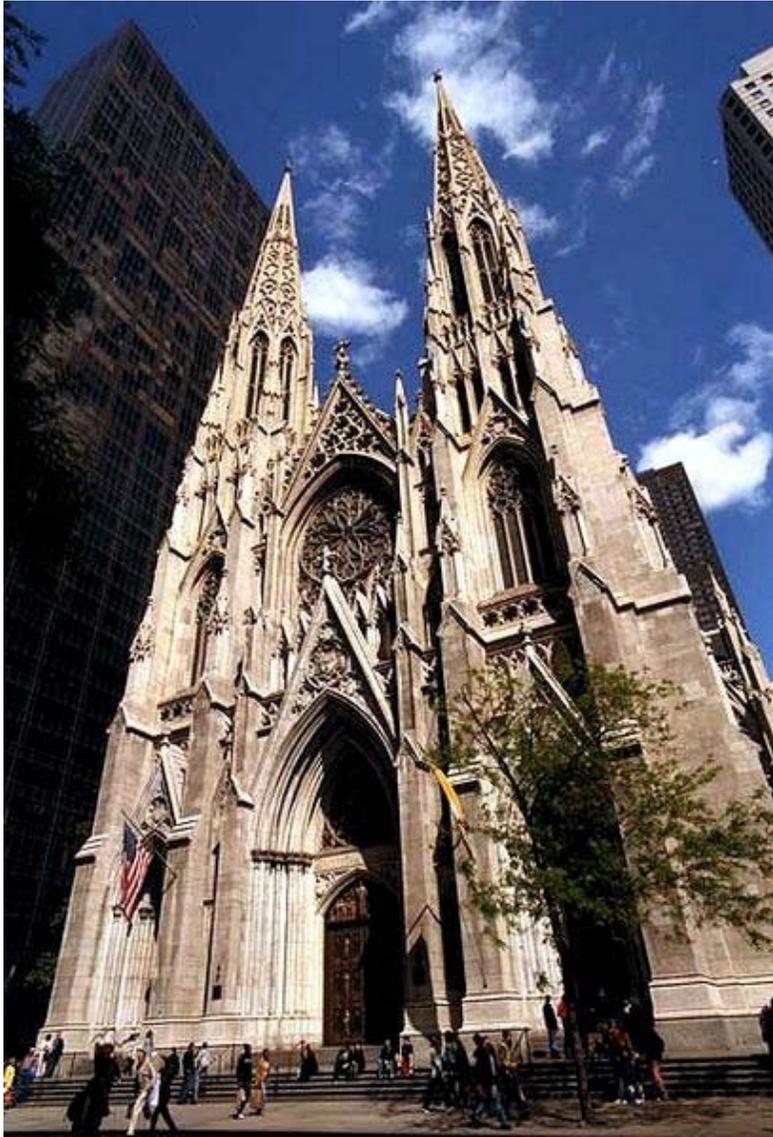


Landmarks Elevation



Fun Facts:

- First known concrete building in NYC
- Originally was part of a 5 acre site owned by the NY and Long Island Coignet Stone Company.
- Was meant to showcase Beton Coignet concrete, which was patented in the 1850s and produced at the adjacent factory.
- Beton Coignet used molds instead of stone working tools to fabricate its pieces
- Building uses both precast elements as well as blocks and a monolithic poured in place foundation.
- Flooring was made of reinforced concrete using a unique system developed by Coignet.
- Is currently being restored, and will be surrounded by a new Whole Foods.
- Architecture critic Lewis Mumford wrote in 1952: *“In the midst of this emptiness, the Brooklyn Improvement Company, whatever that may be, occupies a classic stucco mansion, standing at the corner of Third Street and Third Avenue in ironic solitude - or should we say hopeful anticipation.”*



Beton Coignet concrete was used in the arches and clerestory windows of St Patrick's cathedral, [above] and the Cleft Ridge Span in Prospect Park [right].



Bowery Savings Bank
1895
Lower East Side, NYC
Sanford White, Architect



Stanford White (1853-1906)

- One of Americas most prominent architects
- Studied under HH Richardson
- Was the White in McKim Mead and White
- Designed everything from homes and public institutions to college campuses, Madison Square Garden, The Washington Square Arch, Boston Public Library



Bowery Fun Facts:

- The Bowery is one of Manhattan's oldest streets, dating to the early 17th century. It was originally a Native American trail, known by the Dutch as the *bouwrij* road because it provided access to farms (called *bouweries*) and country estates to the north.
- Was later known as the Post Road.
- The Bowery was: *"Formerly being a place of congregation for many of the notorious habits of the underworld. The street is now a thoroughfare that is an exit to the famous East Side of New York."*

-1905 Postcard

An Exit from the infamous East Side



The bank's building committee instructed that:

"that an edifice ought to be erected which should impress the beholder with its dignity and fortress-like strength on account of the neighborhood in which it is to be located."



Whaddya know?? There's another building right on the corner called the Bowery Bank of New York Building.

Fun Facts:

- Unique corner lot surrounds the Bowery Bank of New York Building (124 Bowery) built in 1900-02 by York and Sawyer architects, who worked for McKim Mead and White.
- Bowery Savings Bank is suggestive of an ancient Roman temple. But the Bowery Bank was more expressive of its function as a modern place of work.
- Is also evocative of the city Beautiful movement and the Beaux Arts style, with a rusticated base, segmental-arched windows, and a copper crested cornices embellishing the fourth floor. This was visible to those travelling on the elevated train travelling down Bowery St. (1878-1955)
- Was a precursor to Citibank.
- “A major example of early 20th century bank architecture”- NYC LPC
- It simultaneously dominates the intersection and complements the facades of the Bowery Savings Bank.

Beaux Arts Style:

- Represents the academic neo-classical architectural style taught at the école des Beaux-Arts in Paris.
- Best examples in NYC are Grand Central Terminal and NY Public Library
- Heavily influenced US Architecture from 1880-1920.
- Marked by sculptural decoration, flat roof, hierarchy of spaces, arched windows, classical details, symmetry.
- Steel frame construction and other modern innovations in engineering techniques and materials were often embraced, making it a PRECURSER TO MODERN ARCHITECTURE.





Grand Central Station



New York Public Library



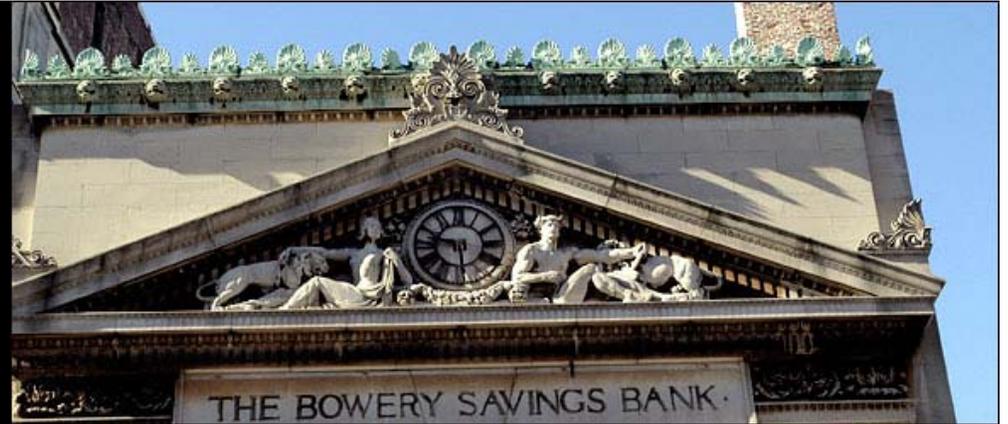
Bank of England in London

Bowery Savings Bank Influences



Chicago's World's Columbian Exposition, 1893





Fun Facts:

- Romanesque Revival tower has a solid masonry exterior with a grand arched entrance that symbolize the strength and permanence of one of New York's oldest banks.
- Modeled on the nave of a Romanesque church
- Art Deco ornament
- Limestone exterior enriched with Corinthian pilasters, columns and a pediment bedecked with sculptures by Fredrick MacMonnies, which represents Time with an hour glass and scythe, and Industry that rested against an enormous clock within the pediment.
- Is truly a "temple" for banking.
- "L" shaped plan
- Interior is now used as one of the most prestigious event spaces in the city.





Starrett Lehigh Building

1930-1931

26th Street, NYC

Russell G. and Walter m. Cory Architects



"The Starrett Lehigh Building is another victory for engineering... Here a cantilevered front has been used, not as a cliché of modernism, but as a means of achieving a maximum amount of daylight and unbroken floor space for work requiring direct lighting. The aesthetic result is very happy indeed. The contrast between the long, continuous re-brick bands and the green-framed windows, with sapphire reflections or depths, is as sound a use of color as one can see about the city. The north side of the structure is genuinely exciting: here the requirements of the building code have created a setback of the otherwise unbroken upper windows, and the curved passage has been very ably handled. Across the way from the Starrett Lehigh Building is an admirable old warehouse of the eighties, with solid brick walls, grudgingly punctuated with windows: the contrast between the two structures points not merely to different functions, but to an essential difference between the old architecture, with its emphasis on the wall, and the new architecture, with its interest in the opening. There is one weak point in the newer building: in what is apparently a section for administrative offices on the south side, the rhythm of the building is broken: the windows are narrow and high, and the vertical effect is heightened by feeble tabs of ornament on the uppermost walls. Even granting the difference in purpose between the factory section and the offices, there was no reason for breaking the horizontal accent - still less for spoiling the noble severity of the façade."

- Lewis Mumford, *New Yorker Magazine*, November, 1931.



Structural Notes:

- Structural issues arose during the construction of the building when it was understood that bedrock (Manhattan Shist) was at 45' on the east side of the building, then dropped to 145' at the west. This changed the original plan of creating a 15 story building throughout the site, to having 9 floors on the west side, 19 at the center, and 18 on the east side.



Fun Facts:

- One of the few American structures not designed by a major architect cited in the 1932 “Modern Architecture: International Exhibition” show at the Metropolitan Museum of Art
- Mushroom shaped columns
- 1.8 million square feet
- 110,000 panes of glass (all of which are slated to be replaced over the next few years).
- Designated a landmark in 1986 and is part of the West Chelsea Historic District, designated in 2008.
- 9 miles of strip windows
- Buckminster Fuller had a studio there, experimenting with mass produced kitchen/bathroom combinations.

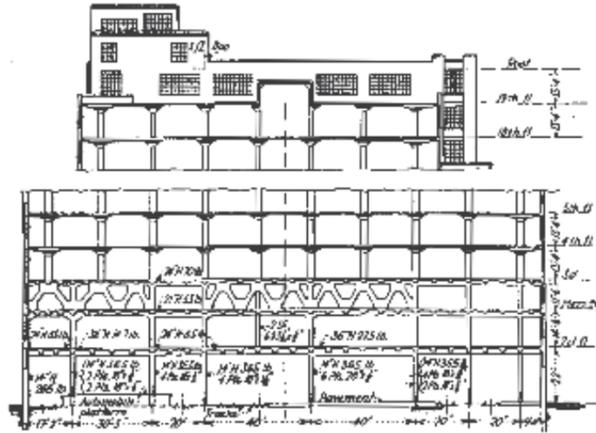


Fig. 6: Cross section, Starrett-Lehigh Building
 Source: Condit, American Bdg. Art:20th C.

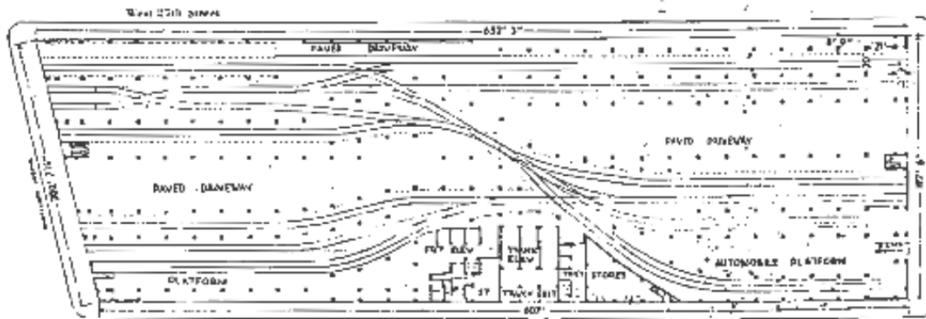


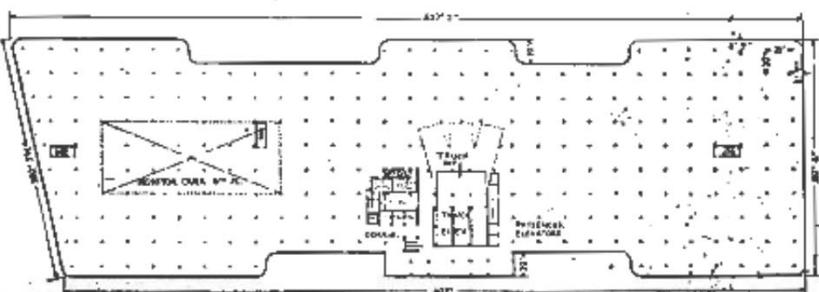
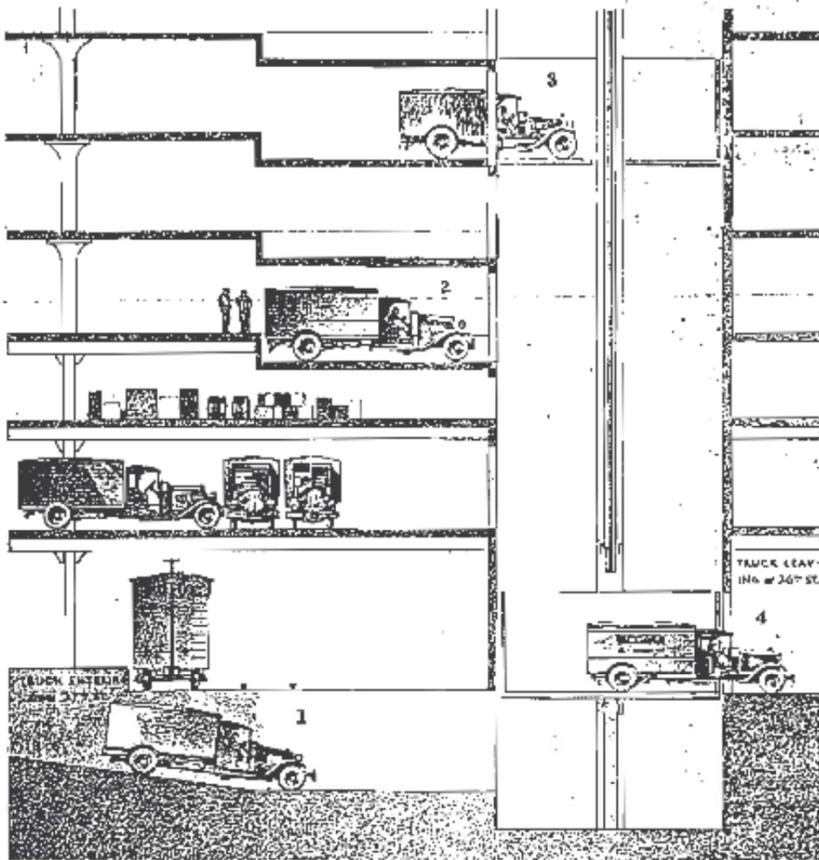
Fig. 7: Ground floor plan, Starrett-Lehigh Building
 Source: Archl. Record, Jan., 1932



Fig. 8: Starrett-Lehigh Building Interior
 Source: Condit, American Bdg. Art:20th C.

Structure:

- Bottom 2 levels are framed in steel, not mushroom columns, in an irregular formation to allow for train movements.
- The irregular open framing system of steel columns and girders allowed for increased maneuverability of the trucks on the second floor.
- The framing transition is made by way of two concrete Warren trusses on the mezzanine level.



Truck Circulation:

- Trucks would enter the building on West 27th St, crossed under the railroad tracks and proceeded directly into an elevator where they could be carried to any floor. They emerged from the building on West 26th St without ever having to turn around.

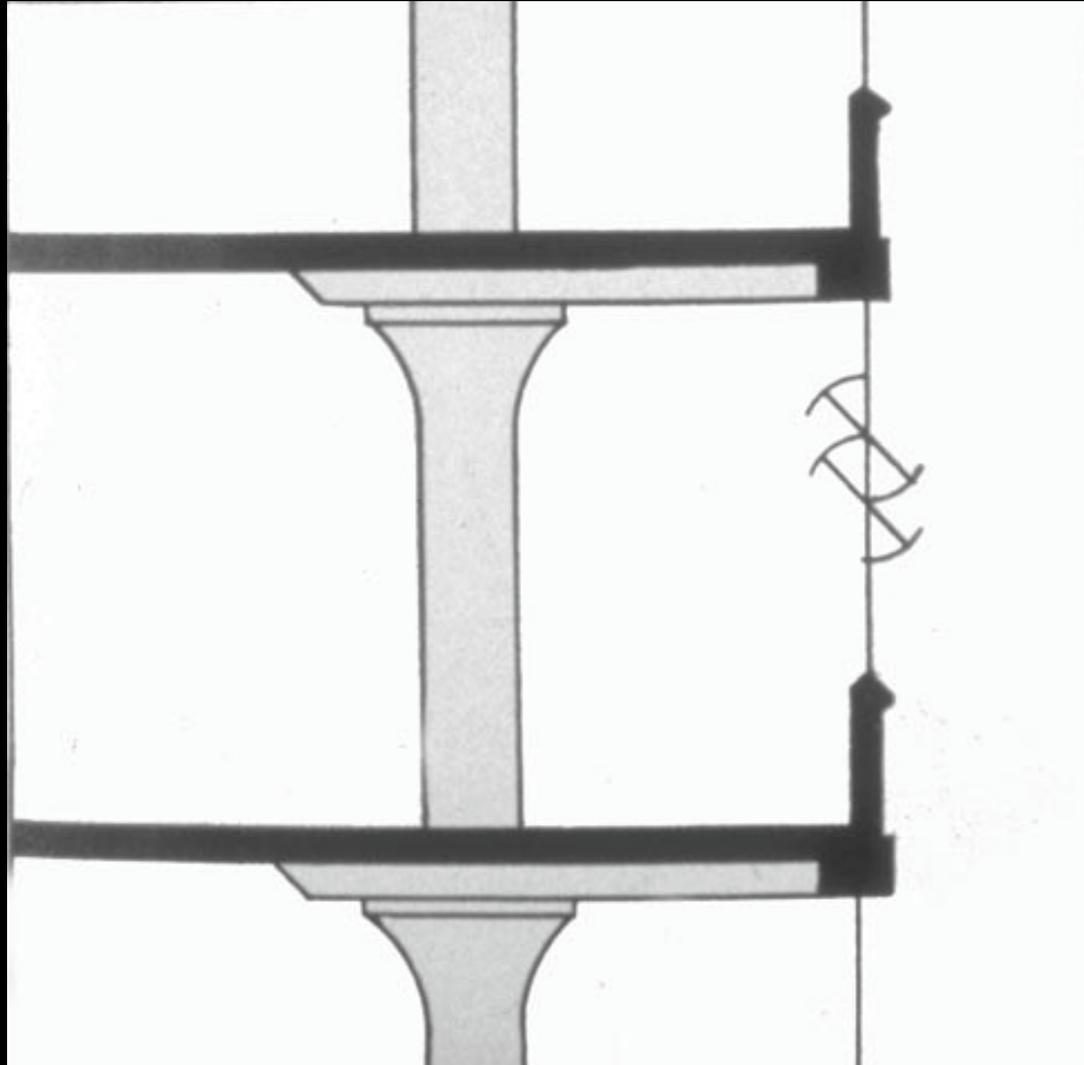
STARRETT-LEHIGH BUILDING, NEW YORK
 RUSSELL G. AND WALTER M. CORY,
 YASUO MATSUI, ASSOCIATE ARCHITECTS

All traffic is handled inside the building. Trucks enter from street, (1) underpass the railroad tracks and are taken to desired floors by elevators; (2) they back into pits of 9-truck capacity; (3) after loading or unloading, they descend, and (4) exit without having had to turn around.

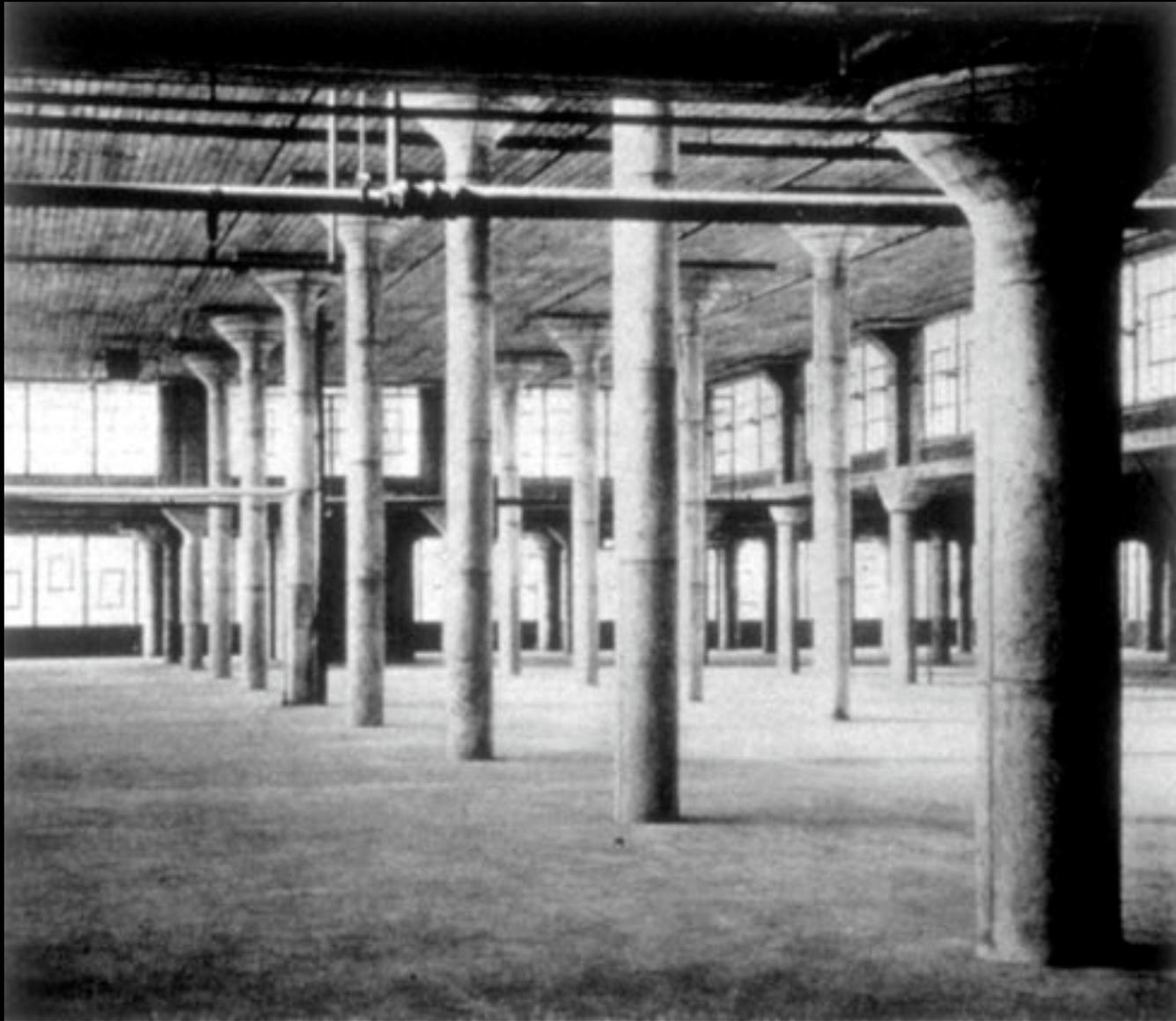
Fig. 9: Starrett-Lehigh Building
 Source: Archl. Record, Jan., 1932



Each floor has a passenger, freight and truck elevator allowing for a plethora of food trucks for the 21st century worker in the building.



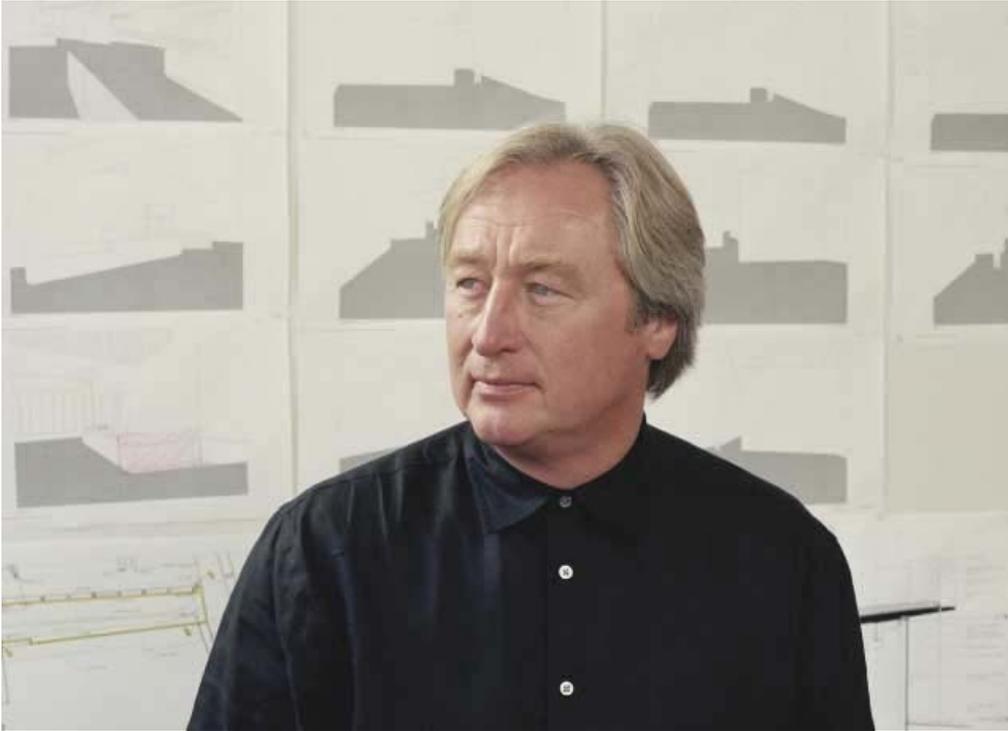
Detail of perimeter curtain wall, a classic example of the new International Style of Architecture



Mushroom Shaped Columns

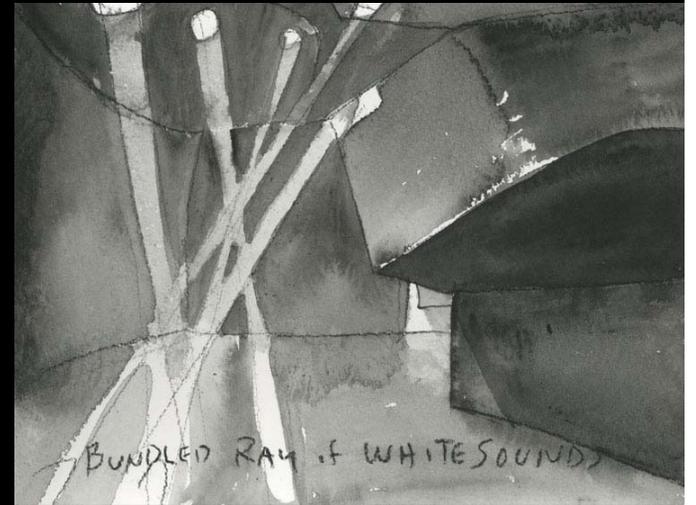
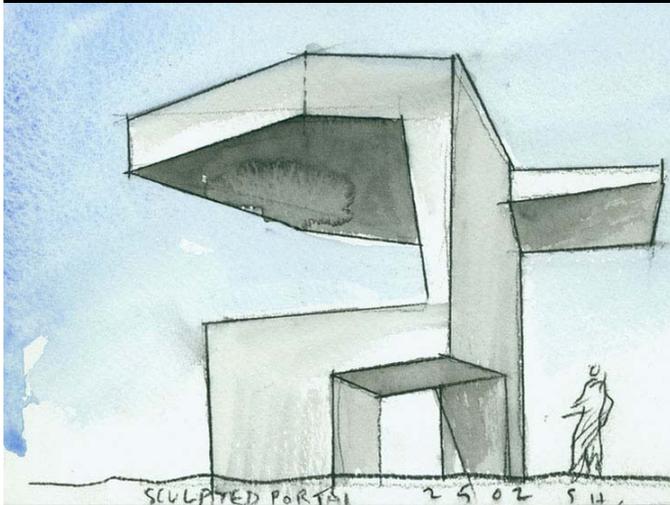
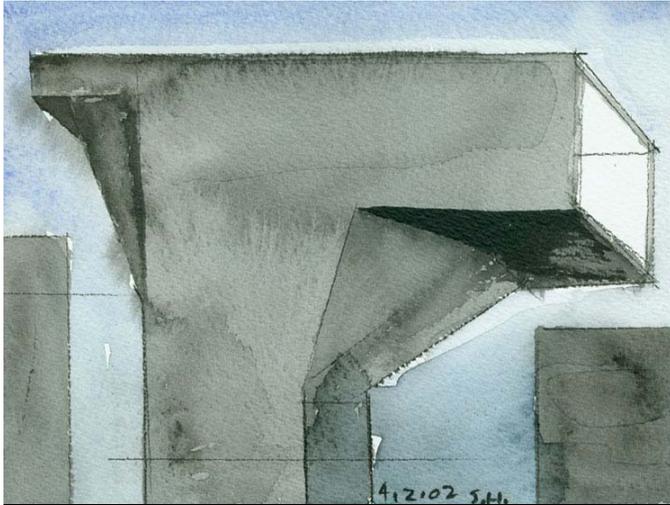


Curvy Curves



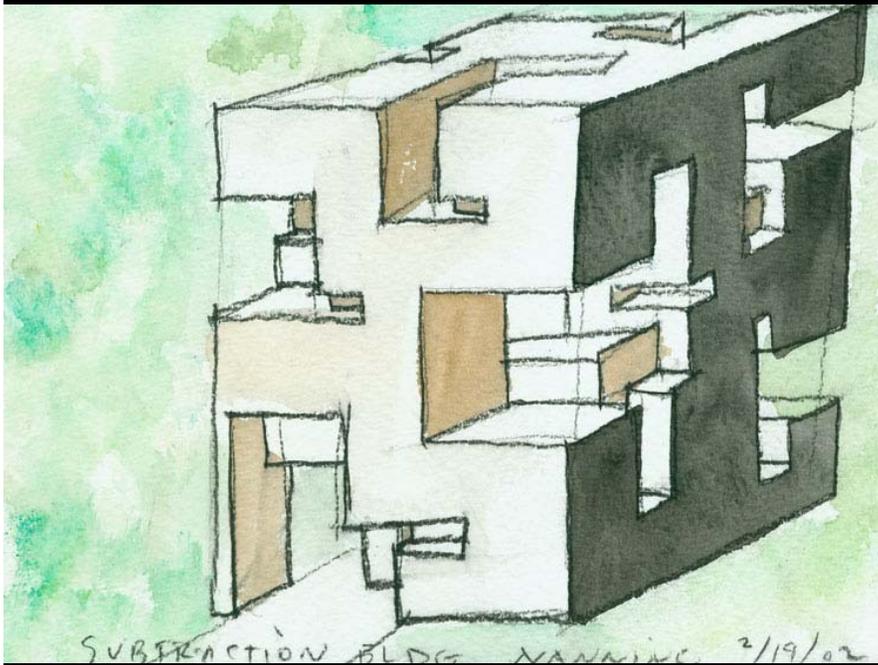
Steven Holl

- Born in 1947 in Washington State.
- Teaches at Columbia University Graduate School of Architecture, Planning and Preservation.
- Watercolorist
- Very sensible, artistic yet “real” approach to architecture.
- “Paints” with light



Watercolors:

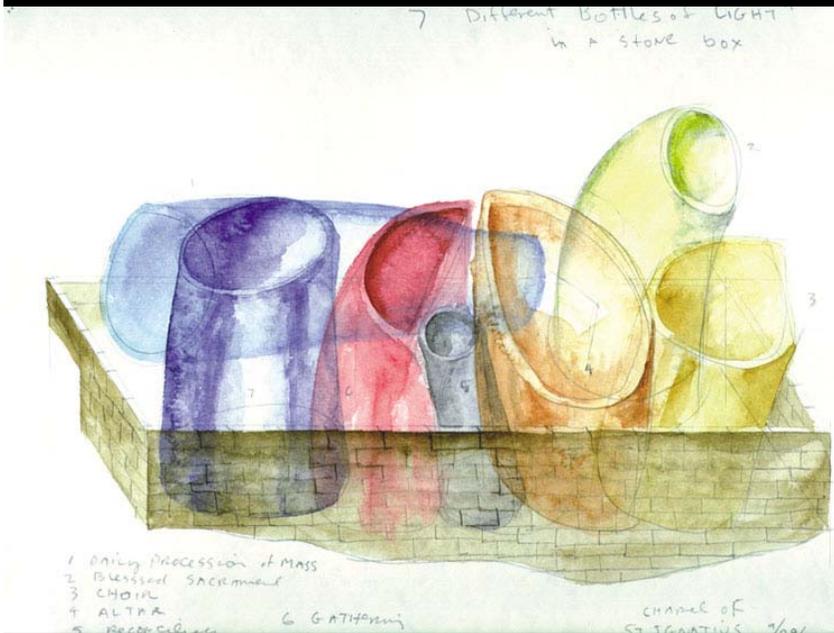
Inherent spatial qualities - solids and voids



Simmons Hall, MIT Campus, Boston, Massachusetts - 1999-2002



D.E. Shaw and Co. Offices, NYC - 1991-1992



Chapel of St. Ignatius - Seattle University, 1994-1997



Storefront for Art and Architecture
1992-93
Kenmare Street, Manhattan
Steven Holl Architect



'The front by Steven Holl with artist Vito Acconci is noticeably different from the traditional shop fronts and art galleries in nearby Soho: its experimental design forges a powerful link between public space, the sidewalk and street, and the private space represented by the narrow inner triangle of the art gallery. Conceived in this way, the façade is both an element of urban cohesion, an extension of the road into the interior, and an expansion of the interior into the street'.

-Abitare 334, November, 1994



Fun Facts:

- Triangular, small gallery space used for exhibitions, artist talks, film screenings, conferences and publications.
- Used a hybrid material comprised of concrete mixed with recycled fibers
- Hinged panels in a puzzle-like configuration.













Pratt School of Architecture - Higgins Hall Insertion
1997-2005
Fort Green, Brooklyn
Steven Holl Architect



Fun Facts:

- Project was necessitated by a fire that occurred at the school of architecture in 1997.
- A tower crane literally inserted a six-column reinforced concrete skeleton between the 2 existing brick buildings.
- This structural frame was expanded in the basement which made it possible to accommodate and embrace the lecture hall.



“The dissonance between the floor plates is opened at the center with panes of clear glass, allowing a view to the east court and marking an entry to the west. A two-throated skylight marks the top, striking dissonance and joining two types of light. South and north light are combined analogous to harmonious sounds in a dissonant chord. Brick from the burned section is recycled into a slumped brick and concrete base forming an entrance and viewing terrace. Rising from the burnt brick is a concrete frame supported on 6 columns spanned with concrete and sheathed with structural glass planks. An economical industrial material with translucent insulation, the planks span between floors, creating a translucent glow at night.”

- Steven Holl website description of building



'An ingenious piece of urban infill. It is one of those rare interventions that has ended up creating the institution as a new beginning. It has so revitalized the existing brick structures on either side that it now seems as if the Pratt School of Architecture has finally come into its own. Thus one is presented with an eminently functional but also discreetly symbolic building that is equal in terms of its significant distribution of space to any comparable school of architecture in the U.S. In the final analysis the trick has been turned by little more than a few masterly spatial gestures from the hand of a consummate architect'.

*- Kenneth Frampton on Holl,
"Prometheus Bound and Unbound" Domus
896, October 2006*

Thanks for coming!!!

And don't forget about the tip jar ;)