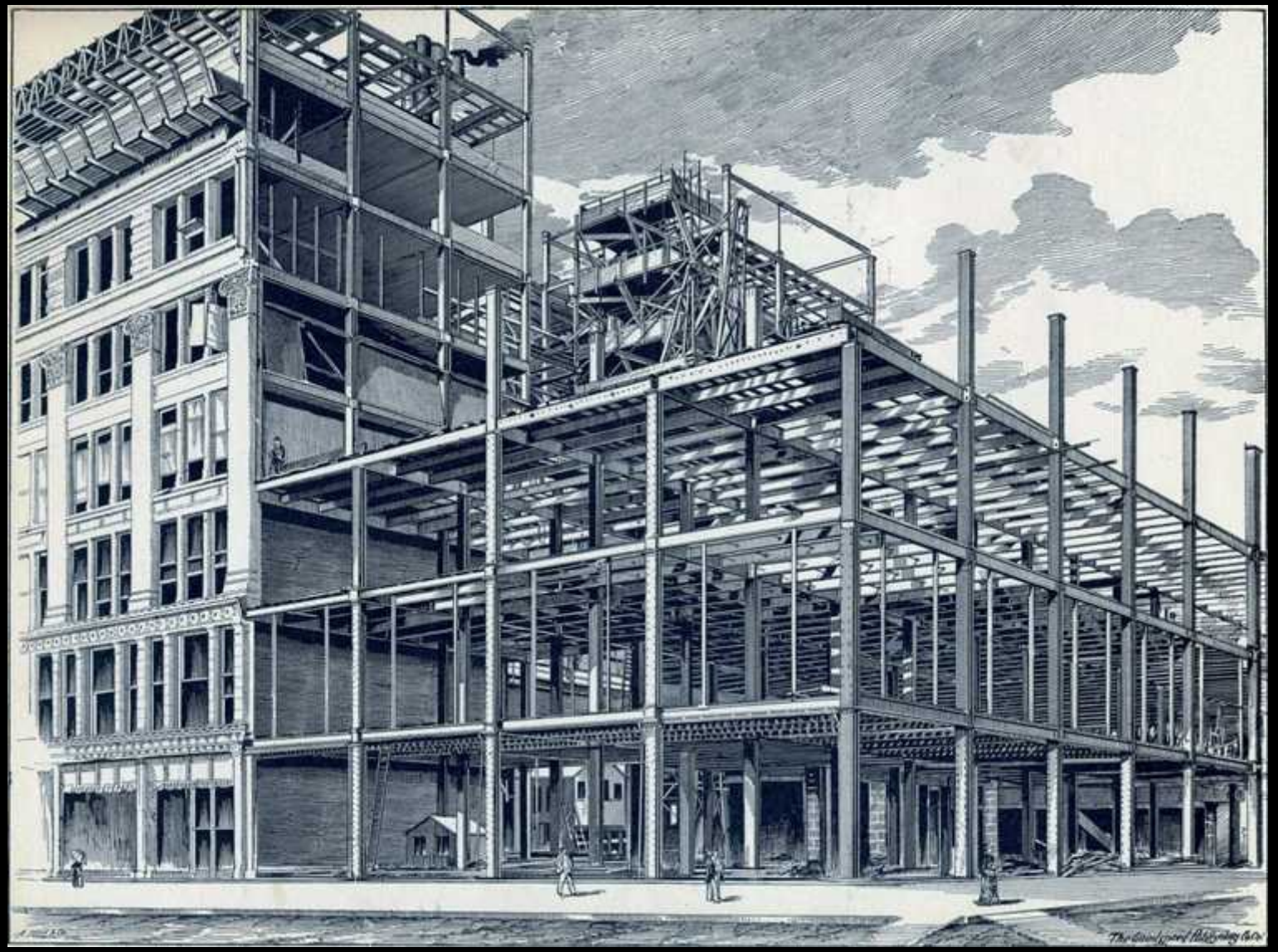
**AHST 3322-001 (29089)**
**History of Modern Architecture**
**Dr. Charissa N. Terranova**
**University of Texas at Dallas**
**Spring 2022**
**M-W 1:00-2:15**

02/02/22

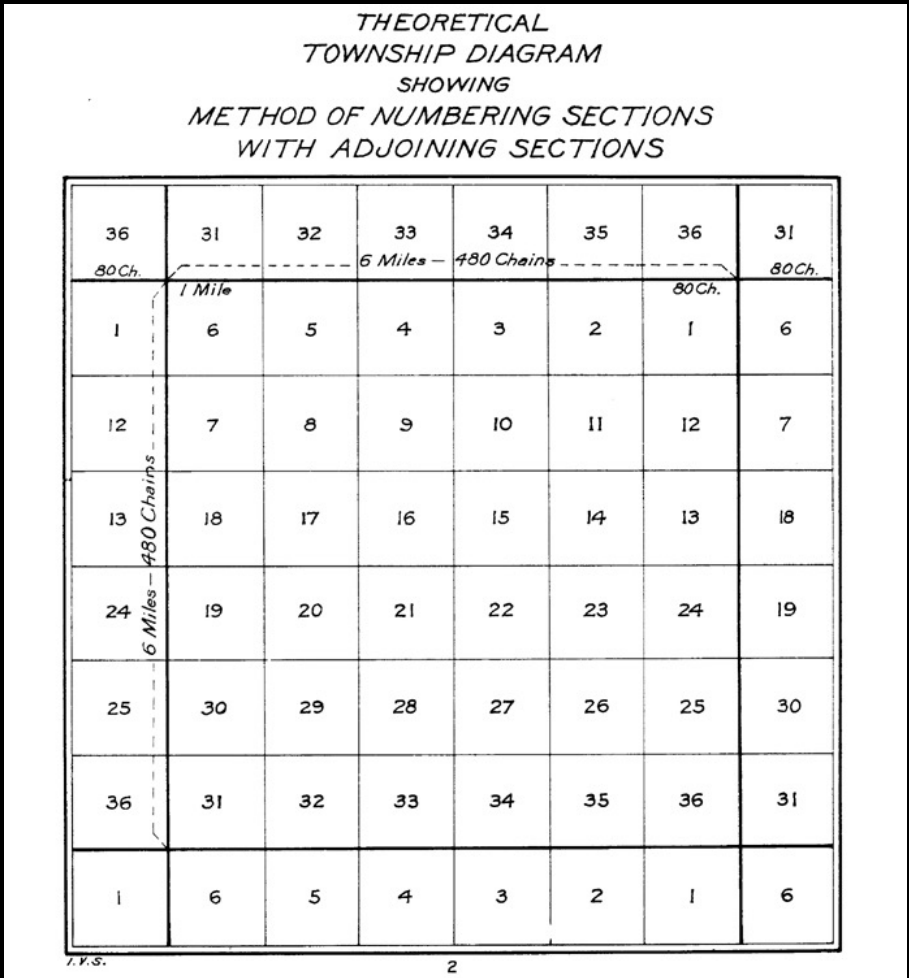
# Chicago Loop and Skyscraper

Daniel Burnham & Co., Fisher Building, 1895-96 with tripartite Chicago Window



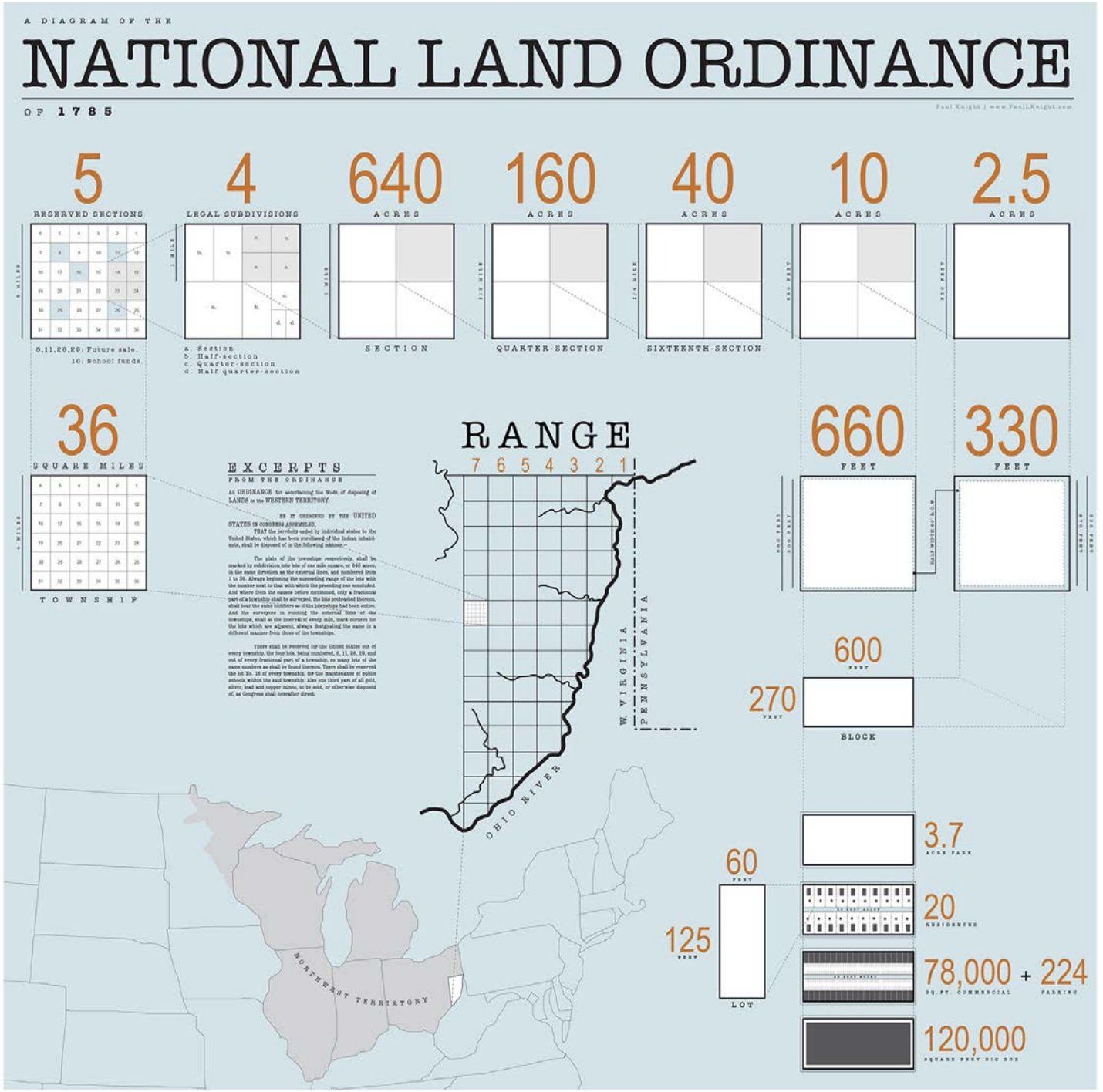
William Le Baron Jenney's The Fair Store(1892-1986) under construction showing the steel skeleton
Colin Rowe, "The Chicago Frame," (1956) *Mathematics of the Ideal Villa* (1976)

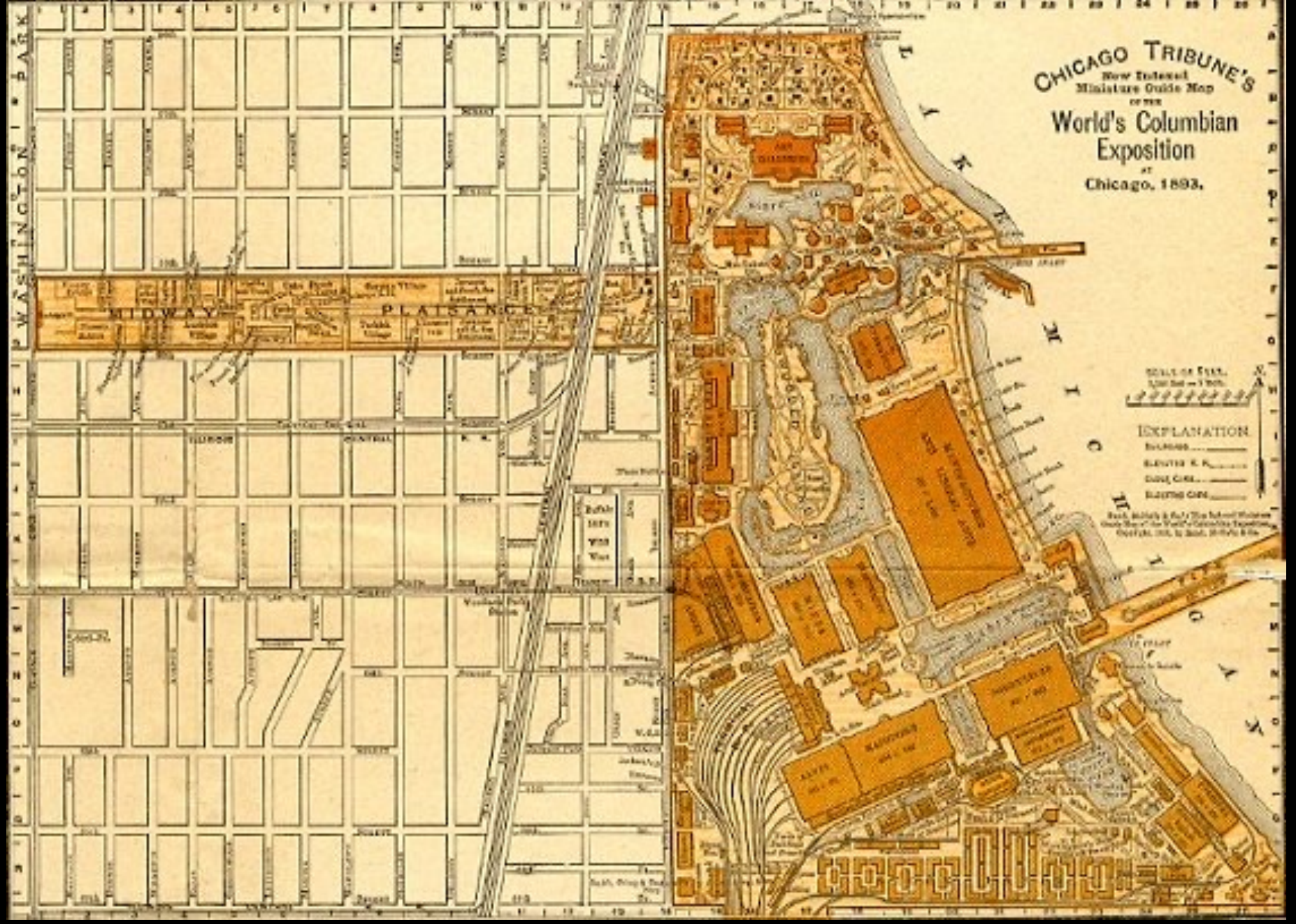

# The Logic of the Grid



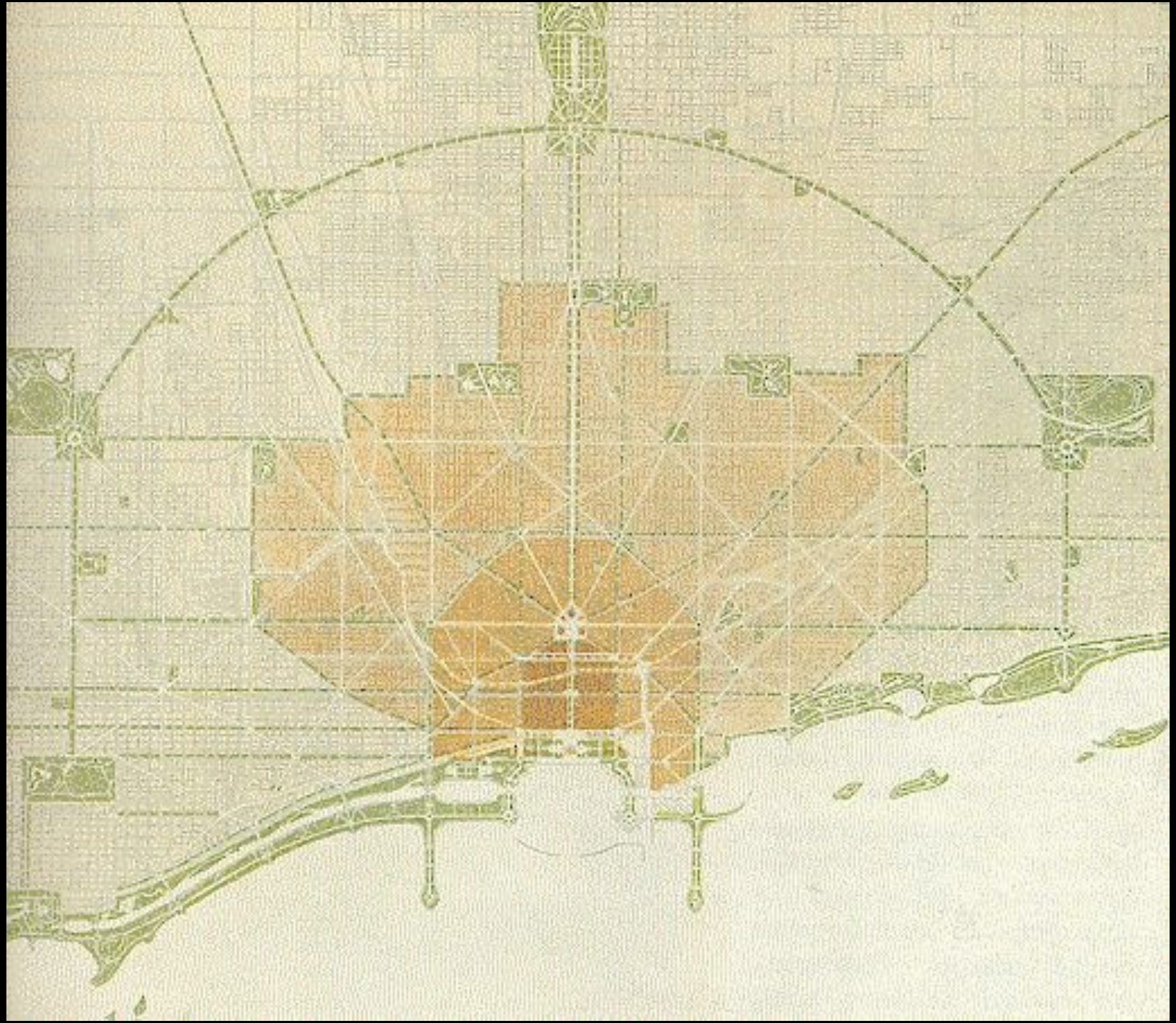

Above: General Land Office plan for numbering sections of a standard survey township adopted May 18, 1796

Right: Logic of Land Ordinance of 1785 by Thomas Jefferson; showing how the method of subdivision can be applied from the scale of the country down to the scale of a single lot






Daniel Burnham with Frederick Law Olmsted, Master Plan of Columbian Exposition, 1893

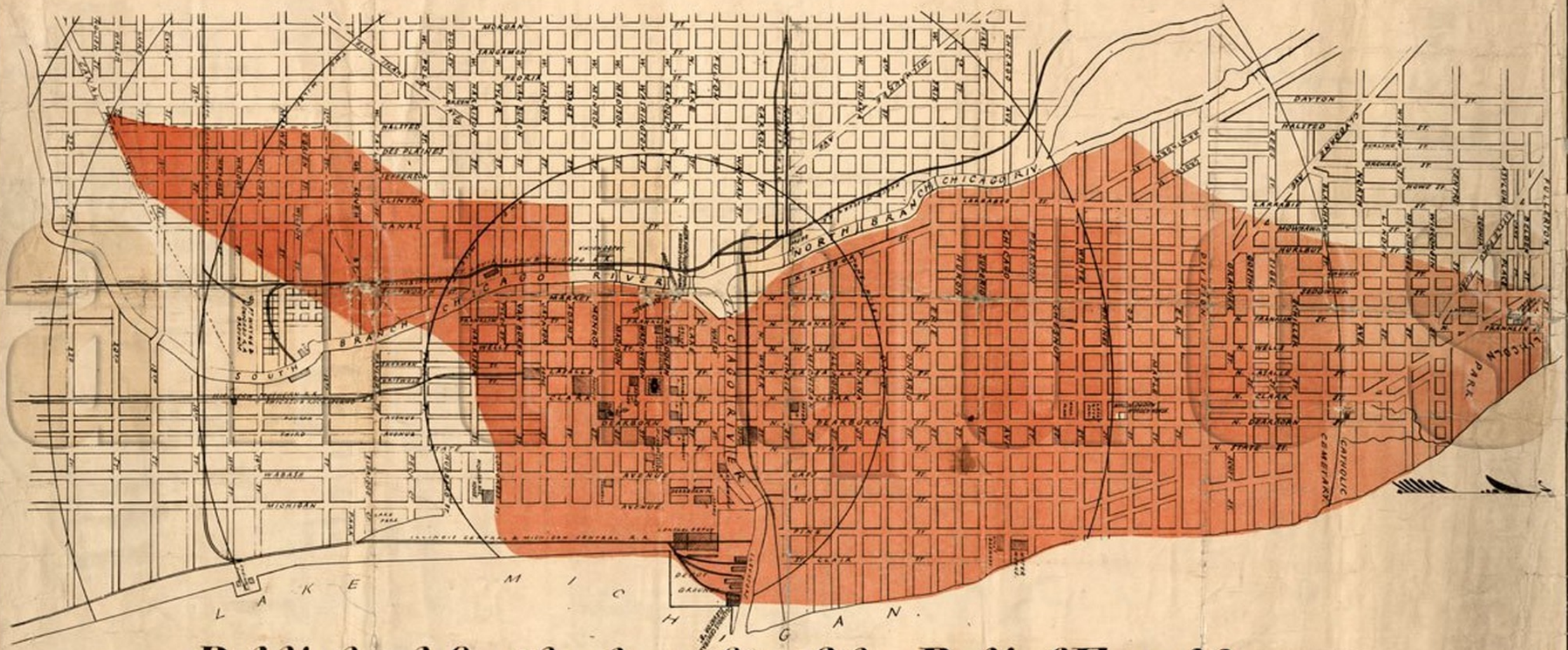


Daniel Burnham, Plan for Chicago, 1909


# BIRD'S-EYE VIEW OF THE BUSINESS DISTRICT OF CHICAGO

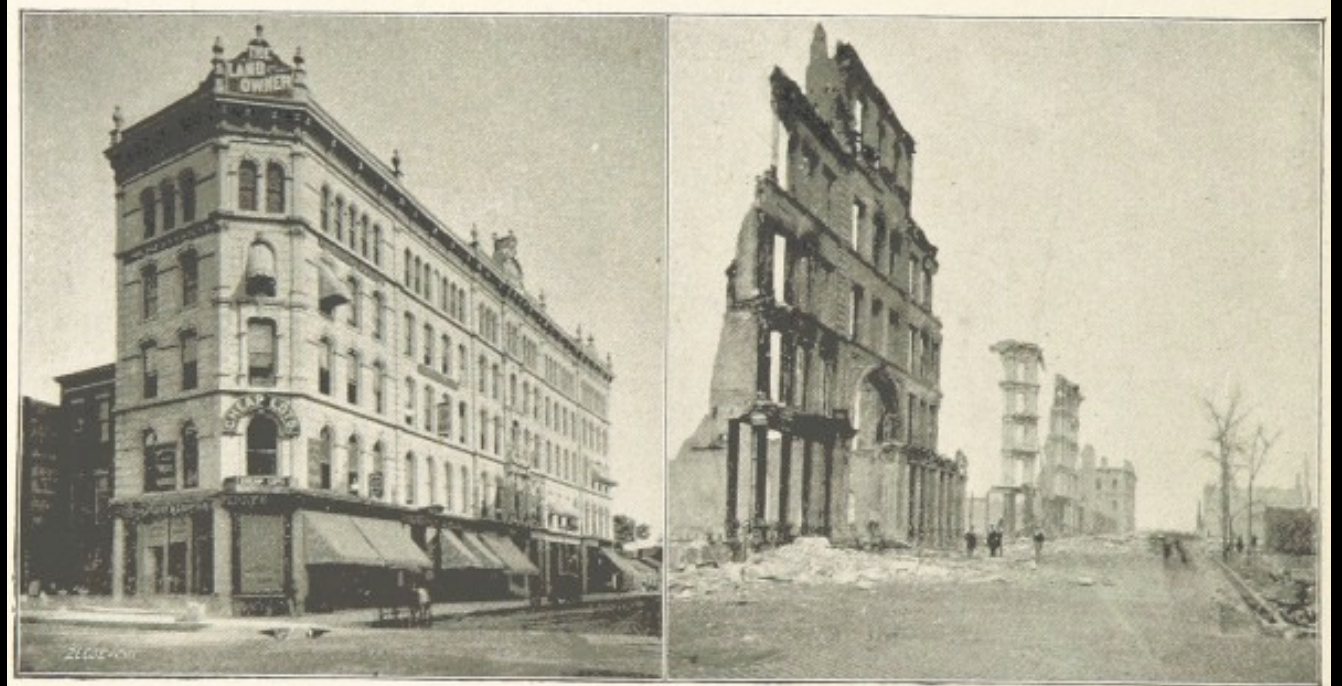
Aftermath of Great Chicago Fire, 1871

# MAP SHOWING THE BURNT DISTRICT IN CHICAGO,



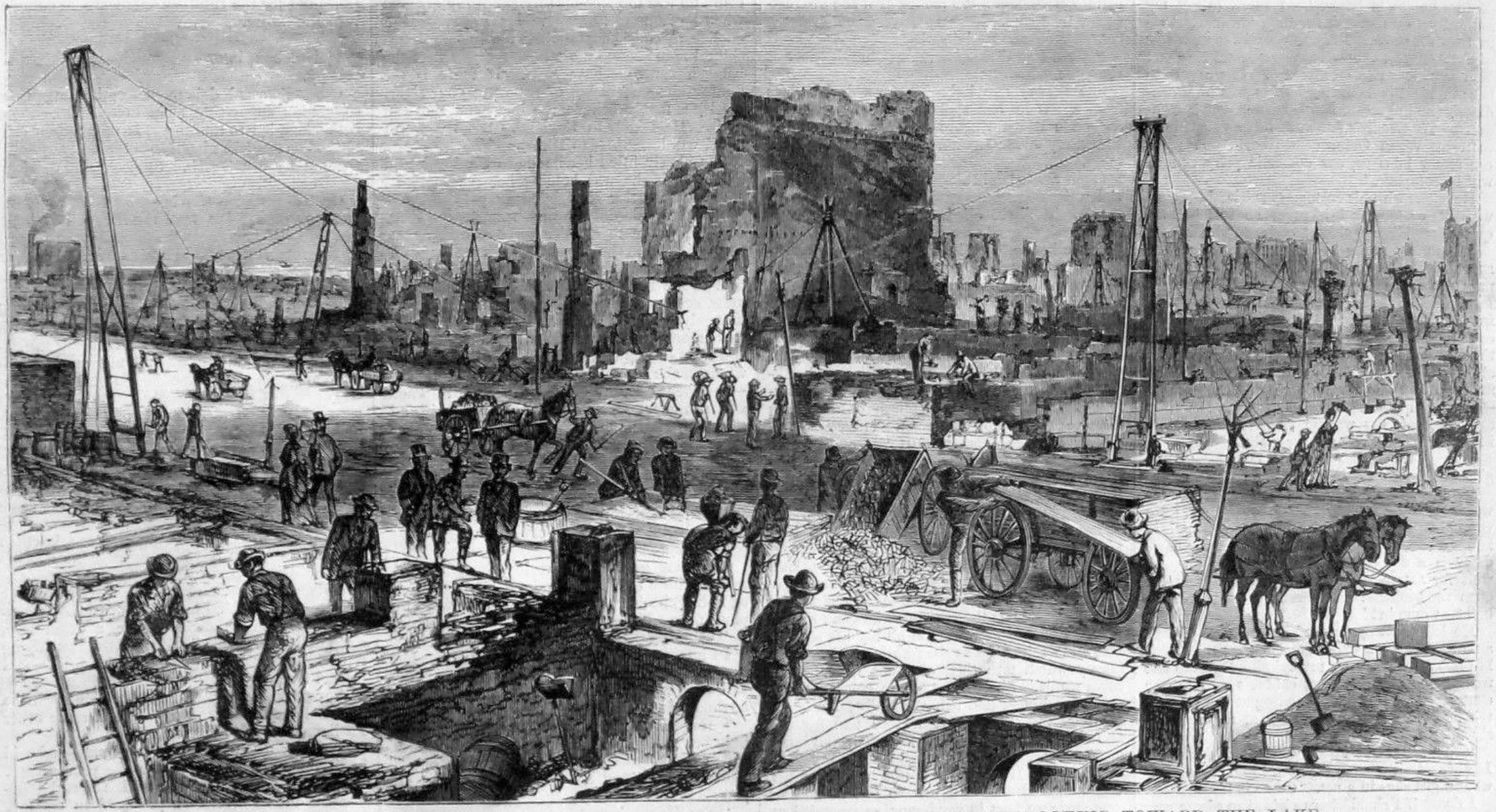

*Published for the benefit of the Relief Fund by*

**3D EDITION. THE R.P. STUDLEY COMPANY, ST. LOUIS.**




SHEPARD'S BUILDING, DEARBORN AND MONROE STS., BEFORE AND AFTER THE FIRE OF 1871.

MICHIGAN AVE. NORTH FROM MADISON ST., BEFORE AND AFTER THE FIRE OF 1871.

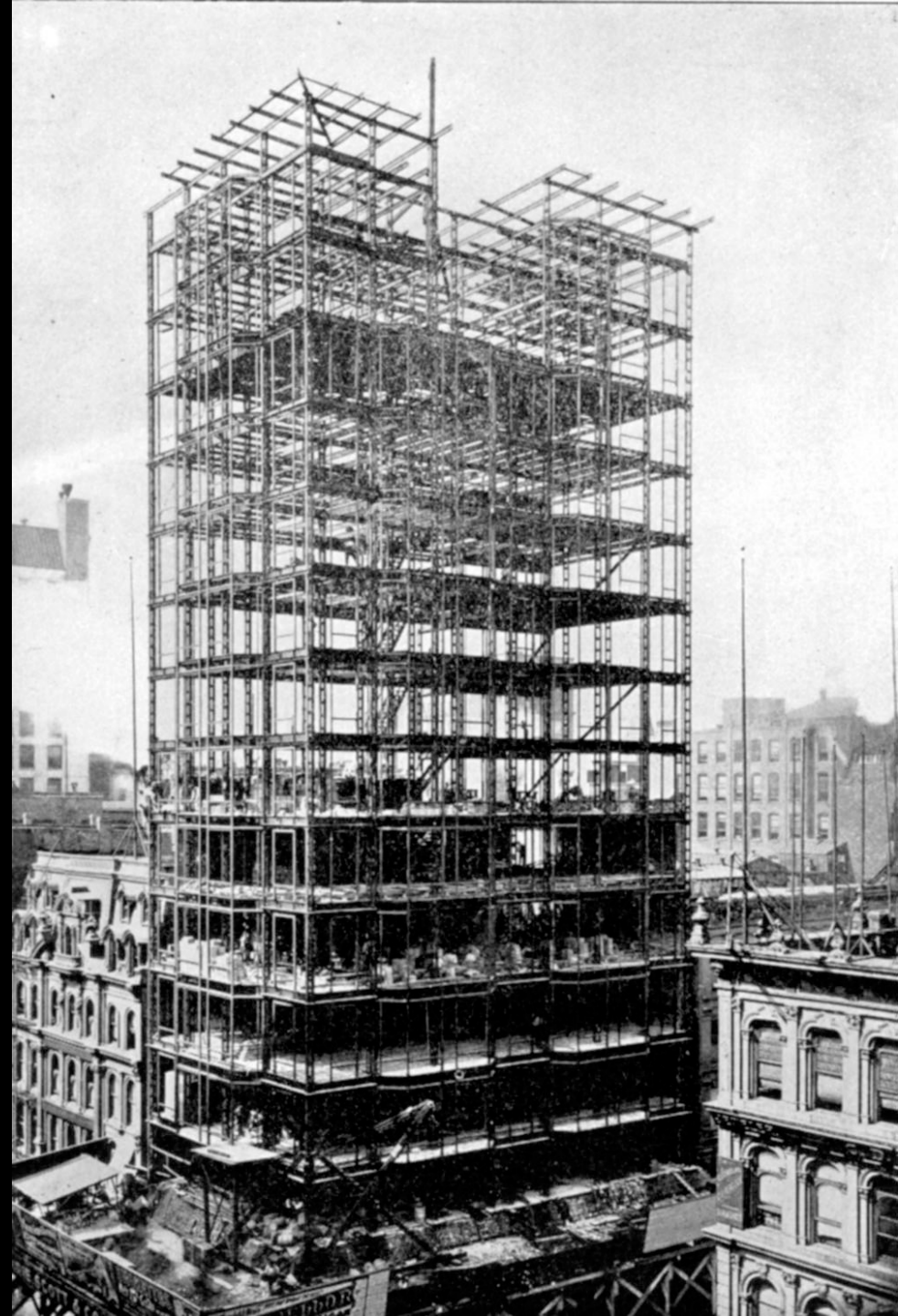


REBUILDING CHICAGO—VIEW AT THE CORNER OF LAKE AND LA SALLE STREETS, LOOKING TOWARD THE LAKE.
FROM A SKETCH BY THEO. R. DAVIS.—[SEE PAGE 1058.]

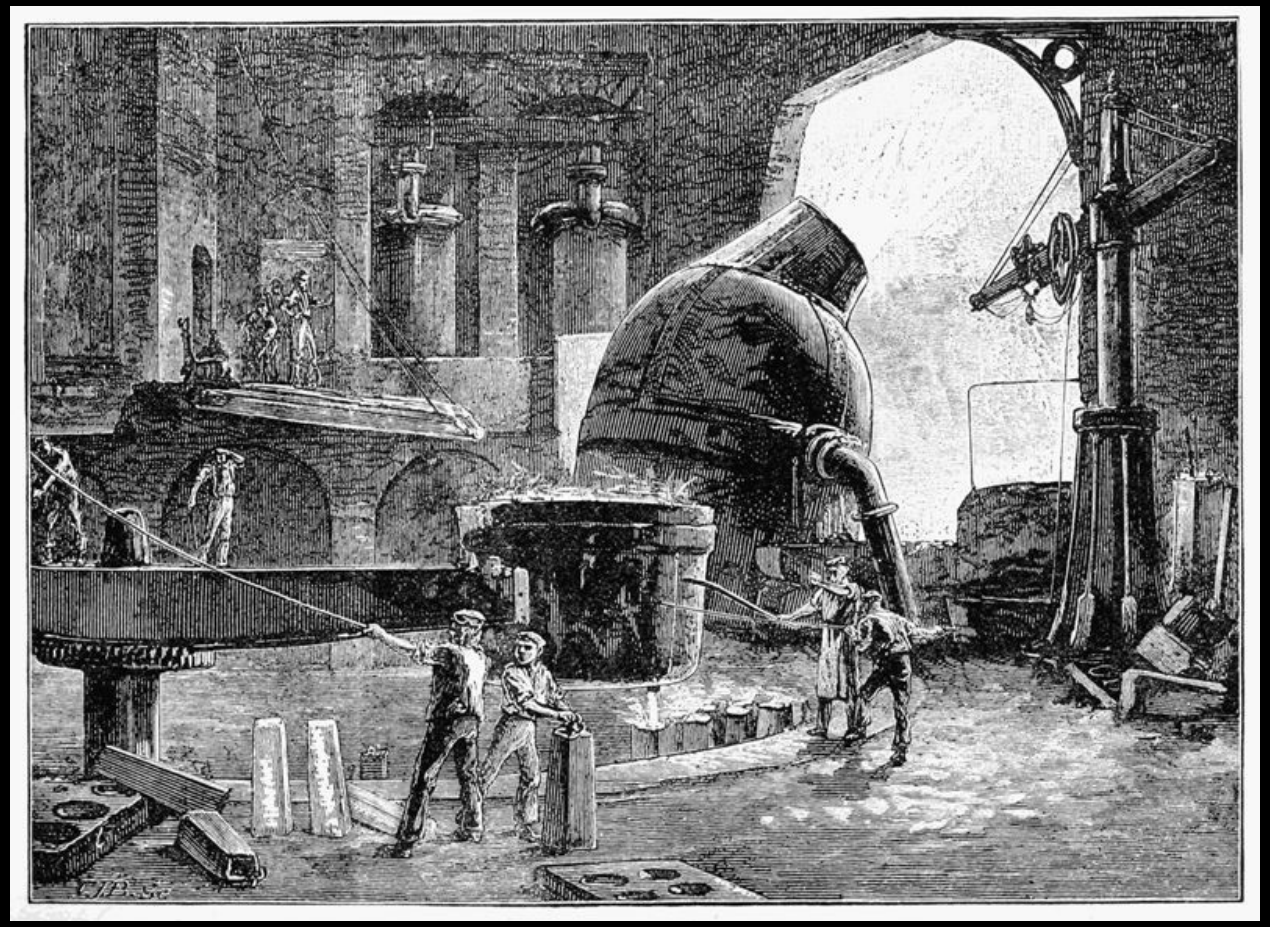
# CHICAGO FRAME/CHICAGO SKELETON

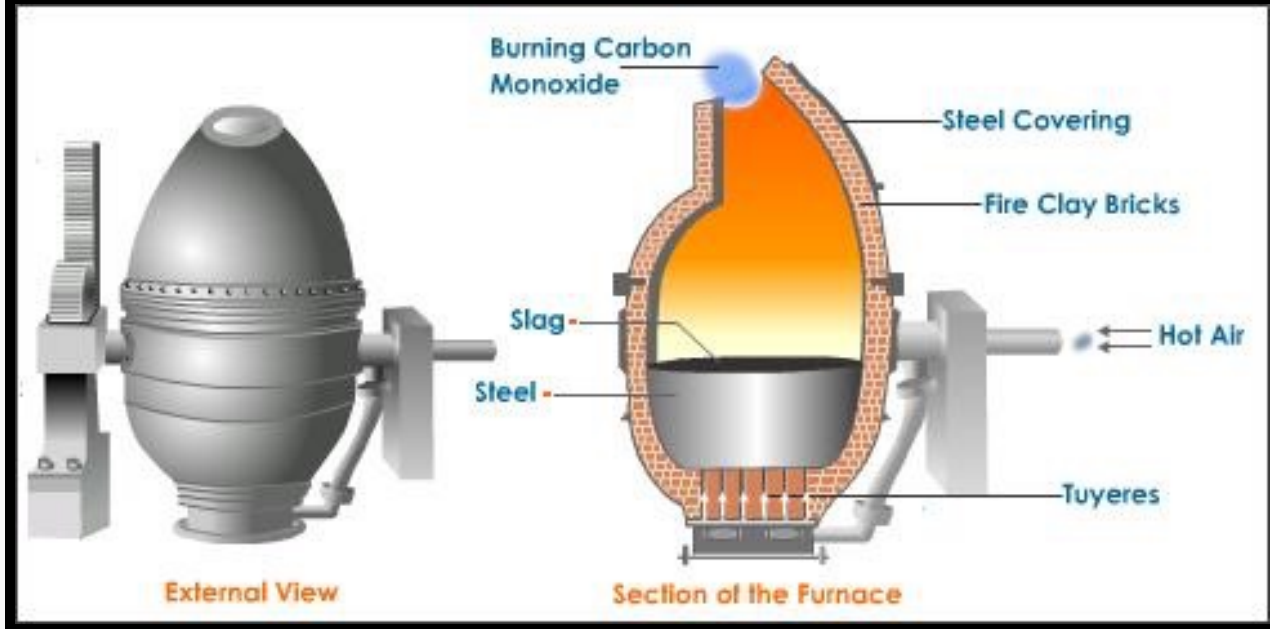

SKY-SCRAPER DISTRICT OF CHICAGO.

E. C. KROPP, PUBL. MILWAUKEE, NO. 1414



William le Baron Jenney, Home Insurance Building, Chicago, 1885






The Bessemer steel process is named for Sir Henry Bessemer of England. Invented / discovered in the 1850s, this process was the first inexpensive industrial process for the mass-production of steel from molten pig iron before the development of the open hearth furnace. Key to this process is the removal of impurities from the iron by oxidation with air being blown through the molten iron.

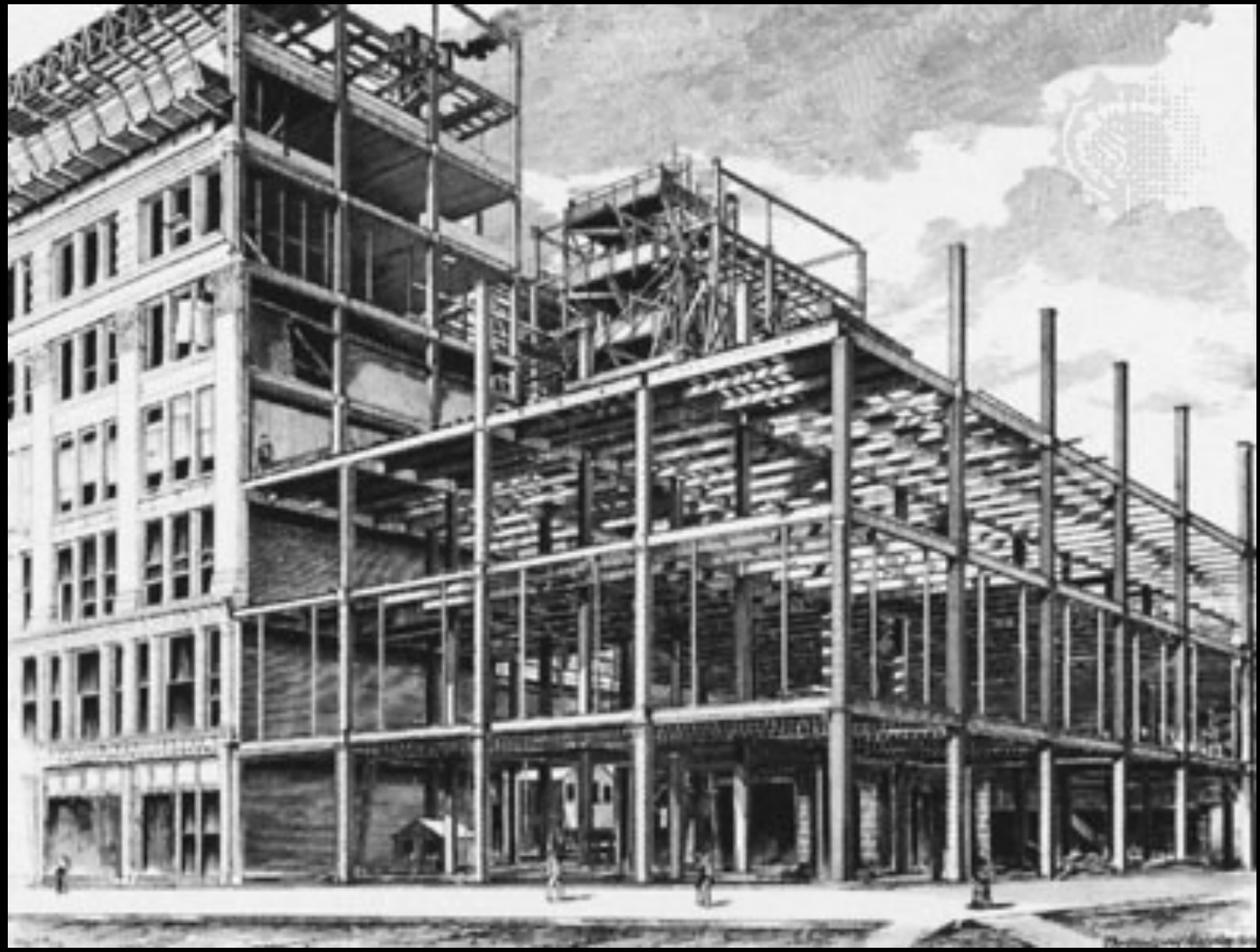

Essential Characteristics:

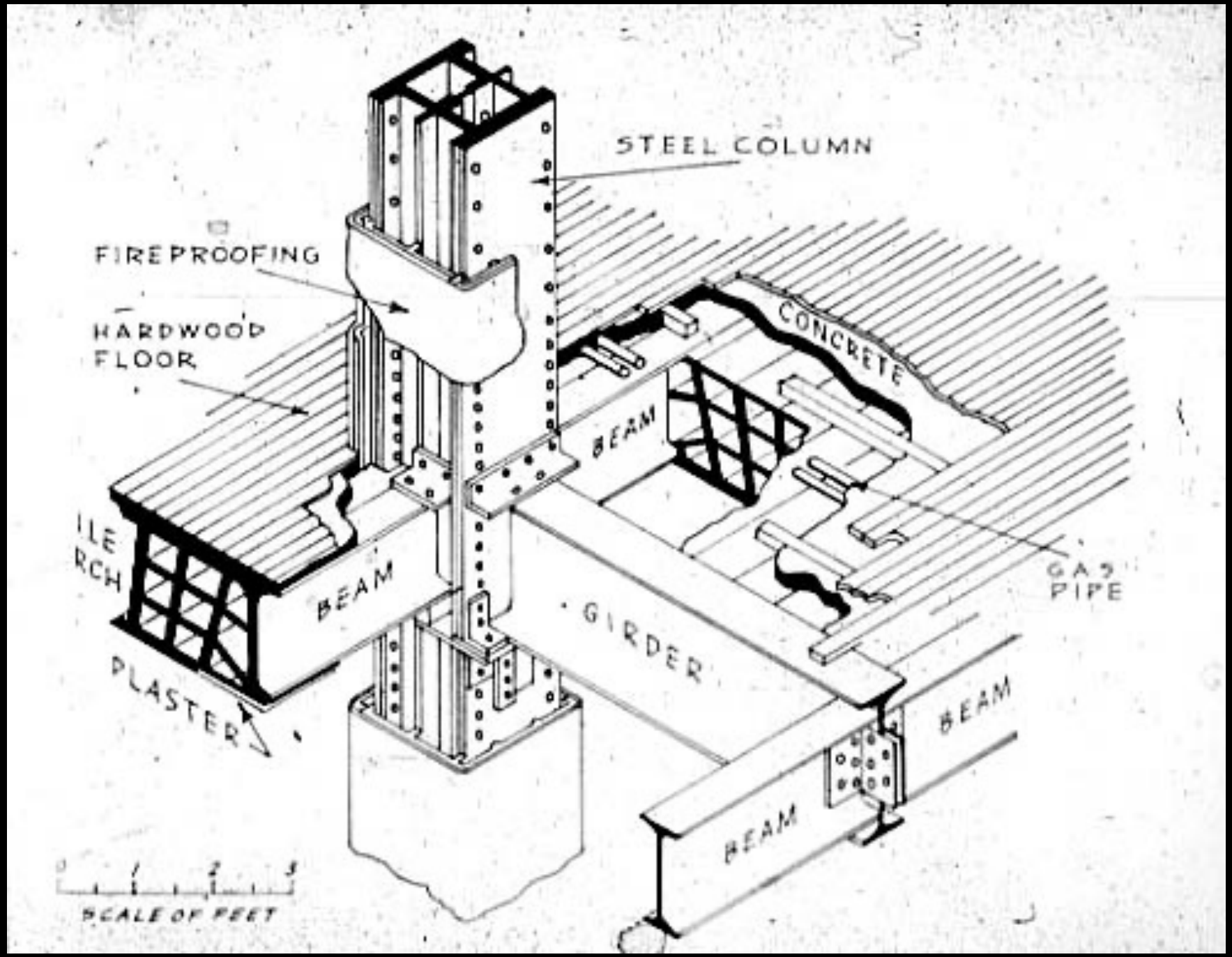
1. Great height
- Arrangement in stories
- Utmost space and light in each story

2. Necessary means
- Structural system – skeletal construction
- Materials necessary to system, above all steel (iron, reinforced concrete), fireproofing, heat-resisting material
- Passenger elevators

3. Favoring conditions
- Economic – such as high value of land; availability of labor and capital
- Social – such as living in large groups [density]; enterprise; organization of work; publicity
- Technological – such as suitable tools, processes, and sources of power, development of plumbing, heating; growth of engineering; development of craft of building to a certain point
- Psychological – desires (conscious and unconscious) which a tall form can express
- Aesthetic – liking for height; preference for the effect of towers related to lower buildings

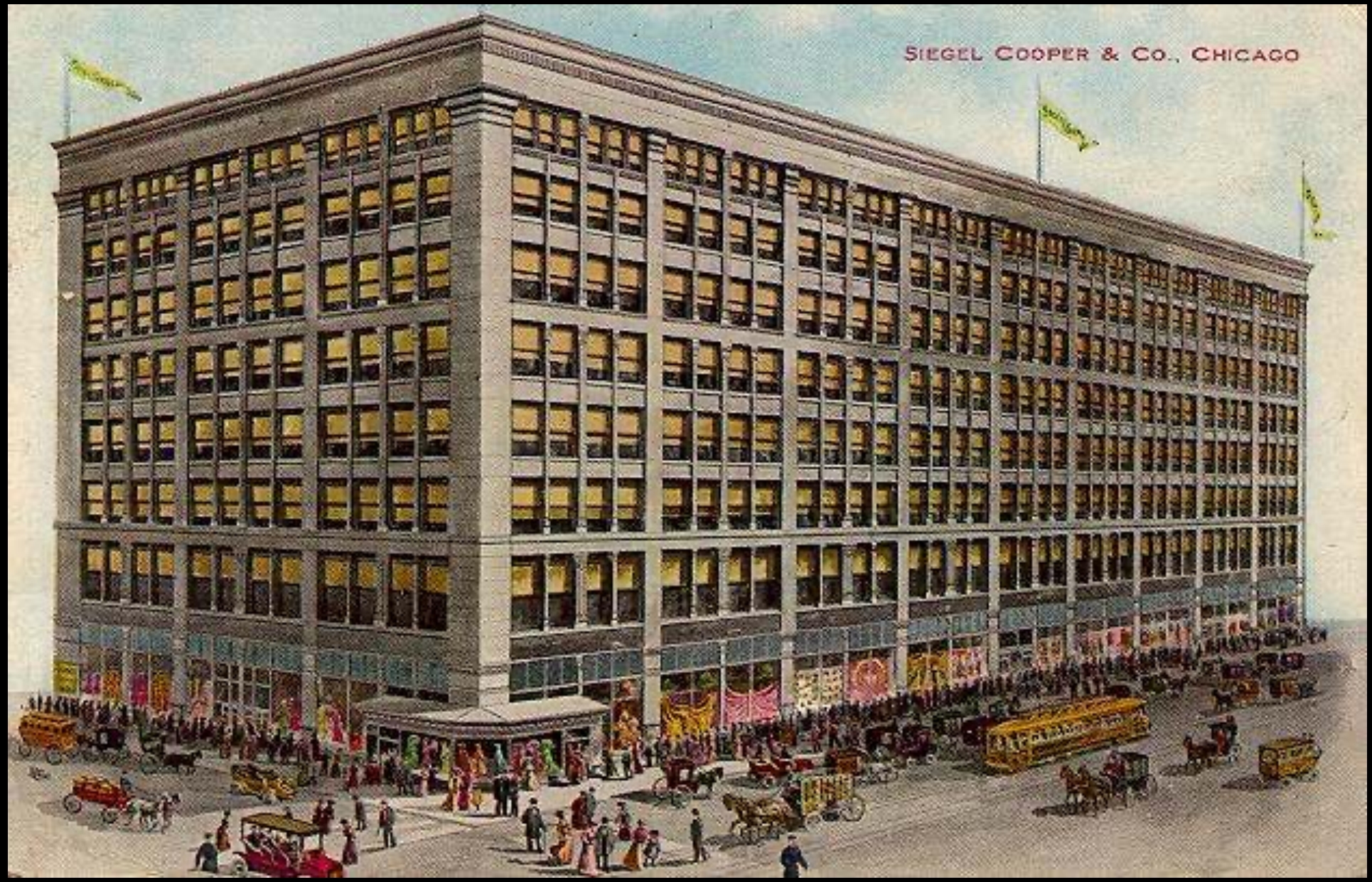

William le Baron Jenney, Fair Store, 1890-91




STEEL COLUMN
FIREPROOFING
HARDWOOD FLOOR
CONCRETE
BEAM
GAS PIPE
BEAM
GIRDER
PLASTER
BEAM
BEAM
SCALE OF FEET

William le Baron Jenney, First Leiter Building, 1879

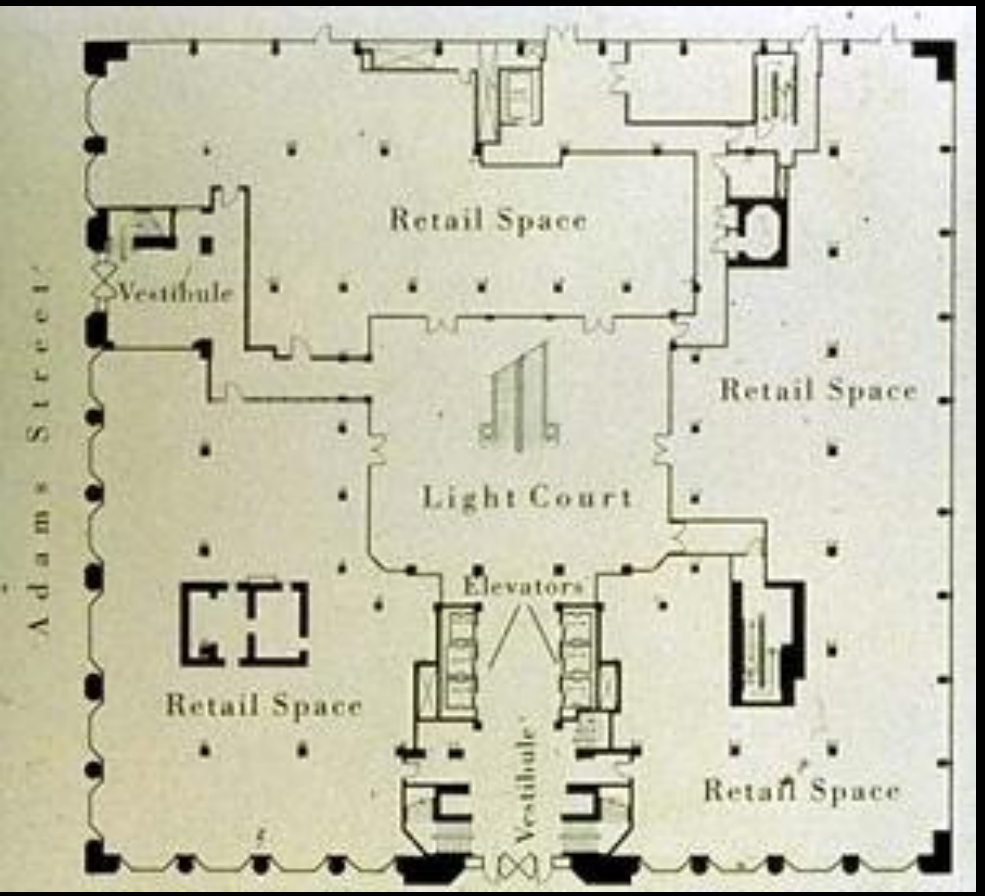
William le Baron Jenney, Second Leiter Building, 1890



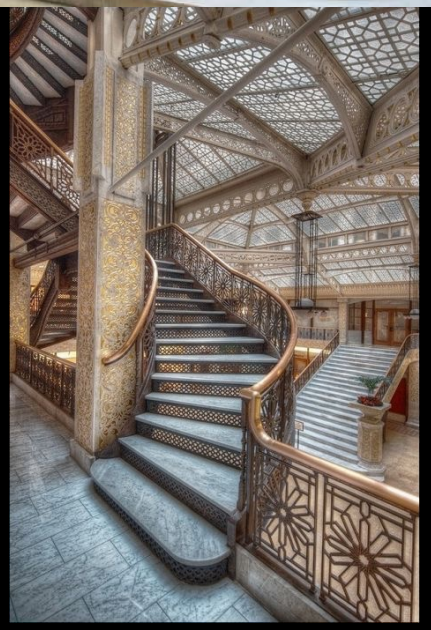

Second Leiter Building

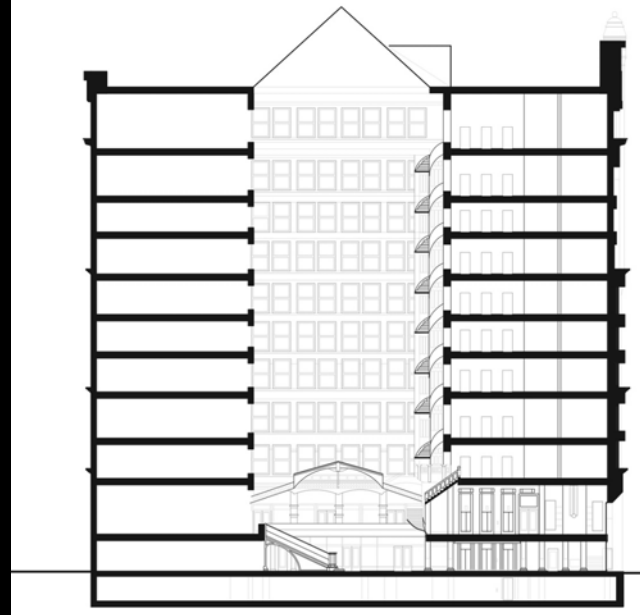
Burnham & Root, Rookery, 1886

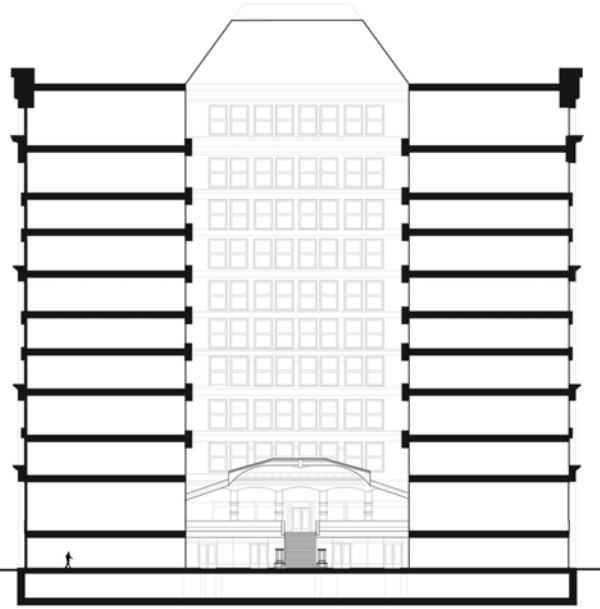
Frank Lloyd Wright, Remodeled Lobby of Rookery, 1905

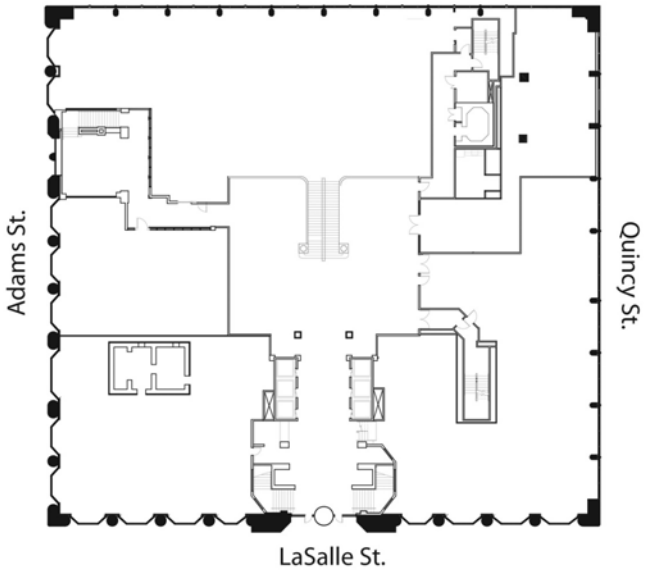

Adams Street
Retail Space
Vestibule
Retail Space
Light Court
Elevators
Retail Space
Vestibule
Retail Space

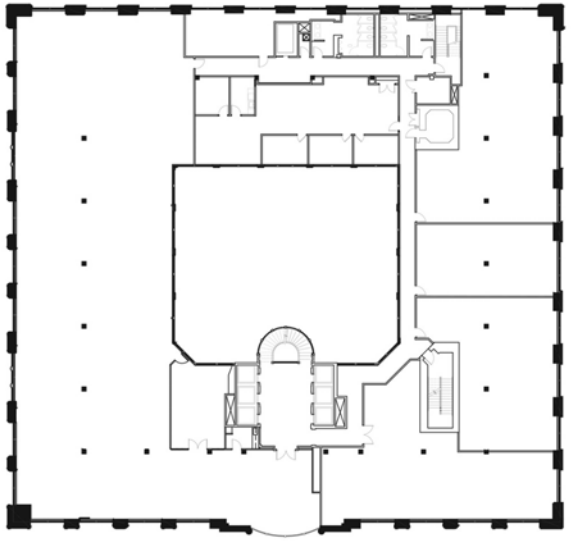

bank
DEAN

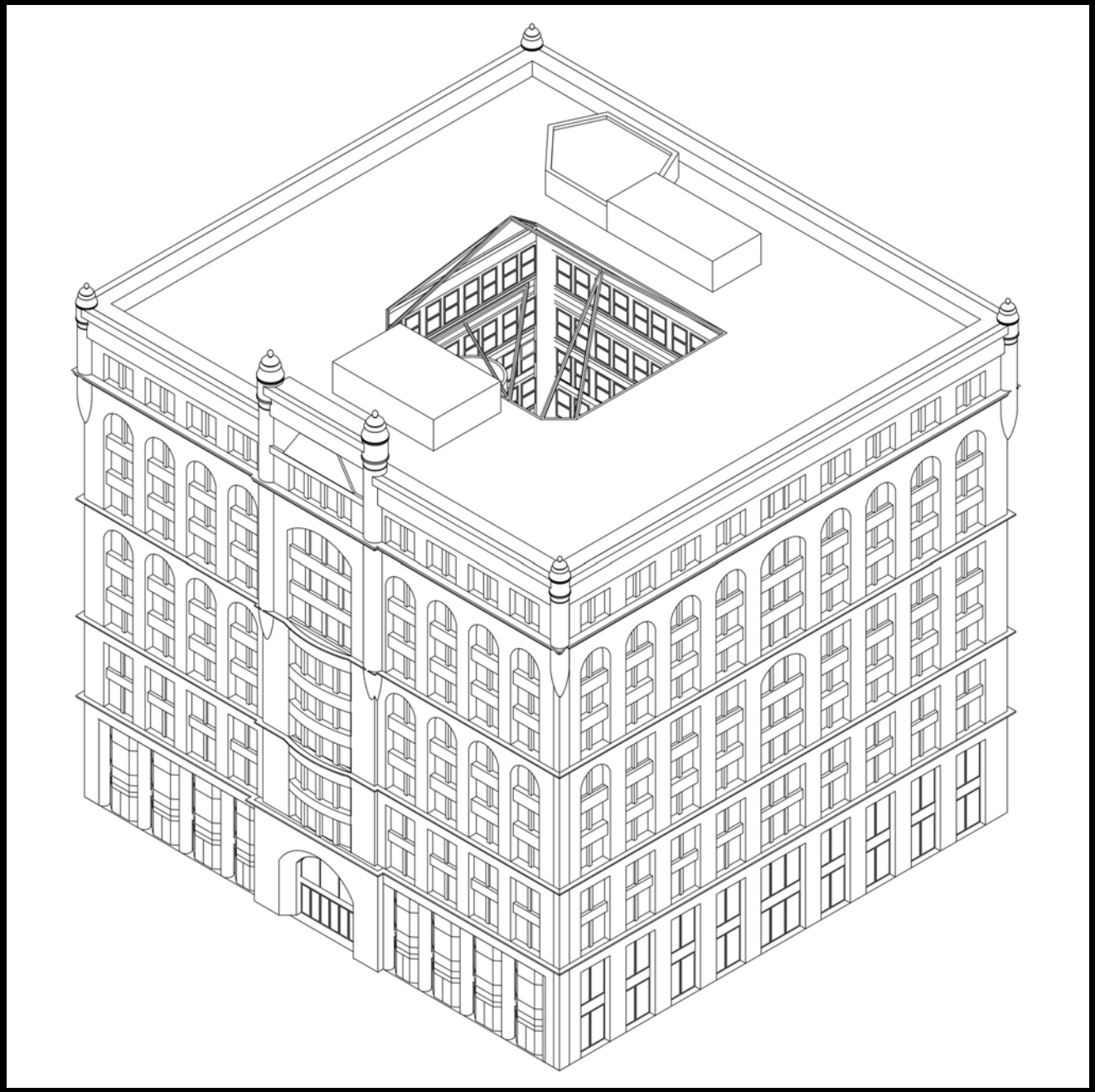


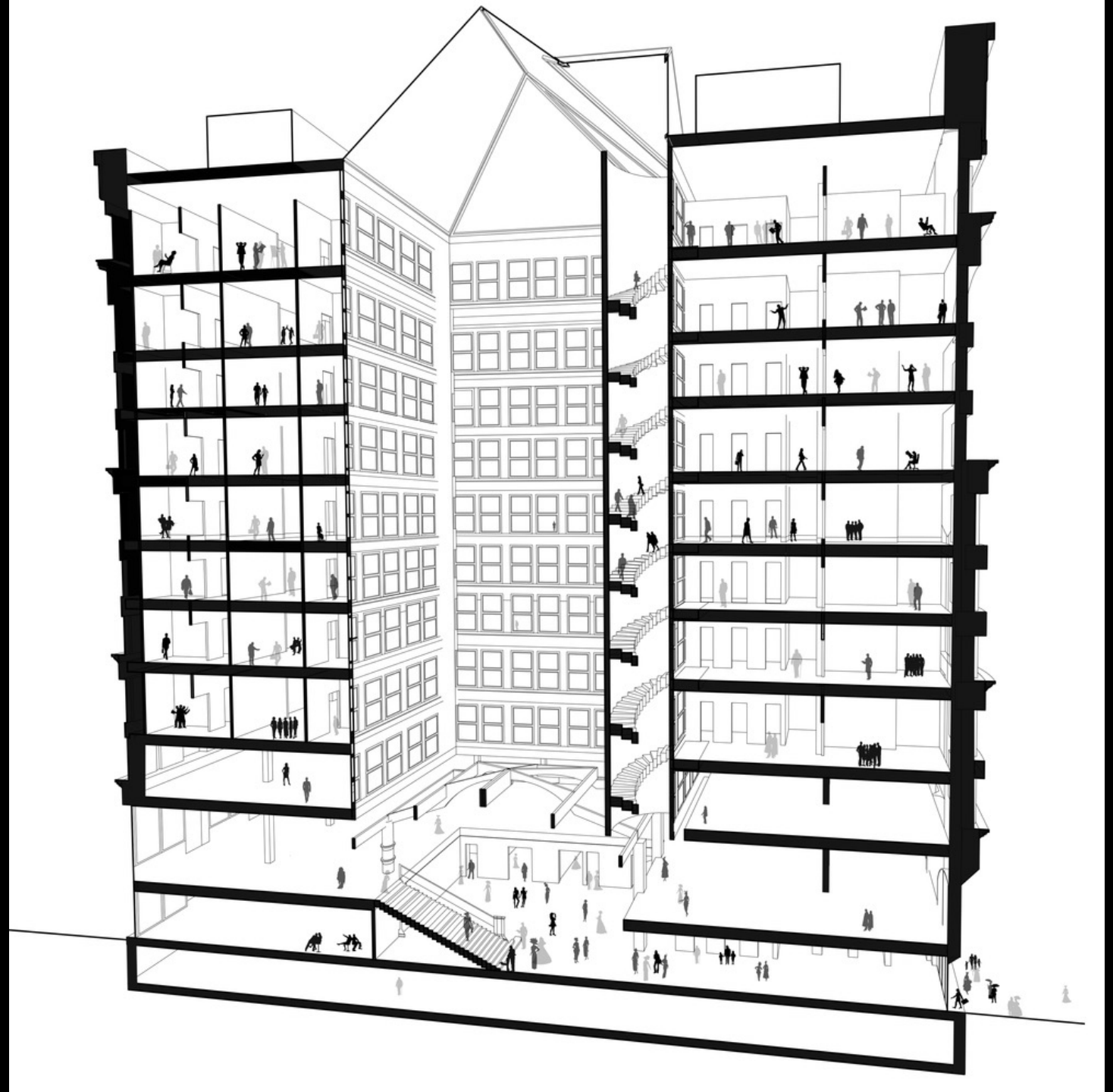





Adams St.
Quincy St.
LaSalle St.

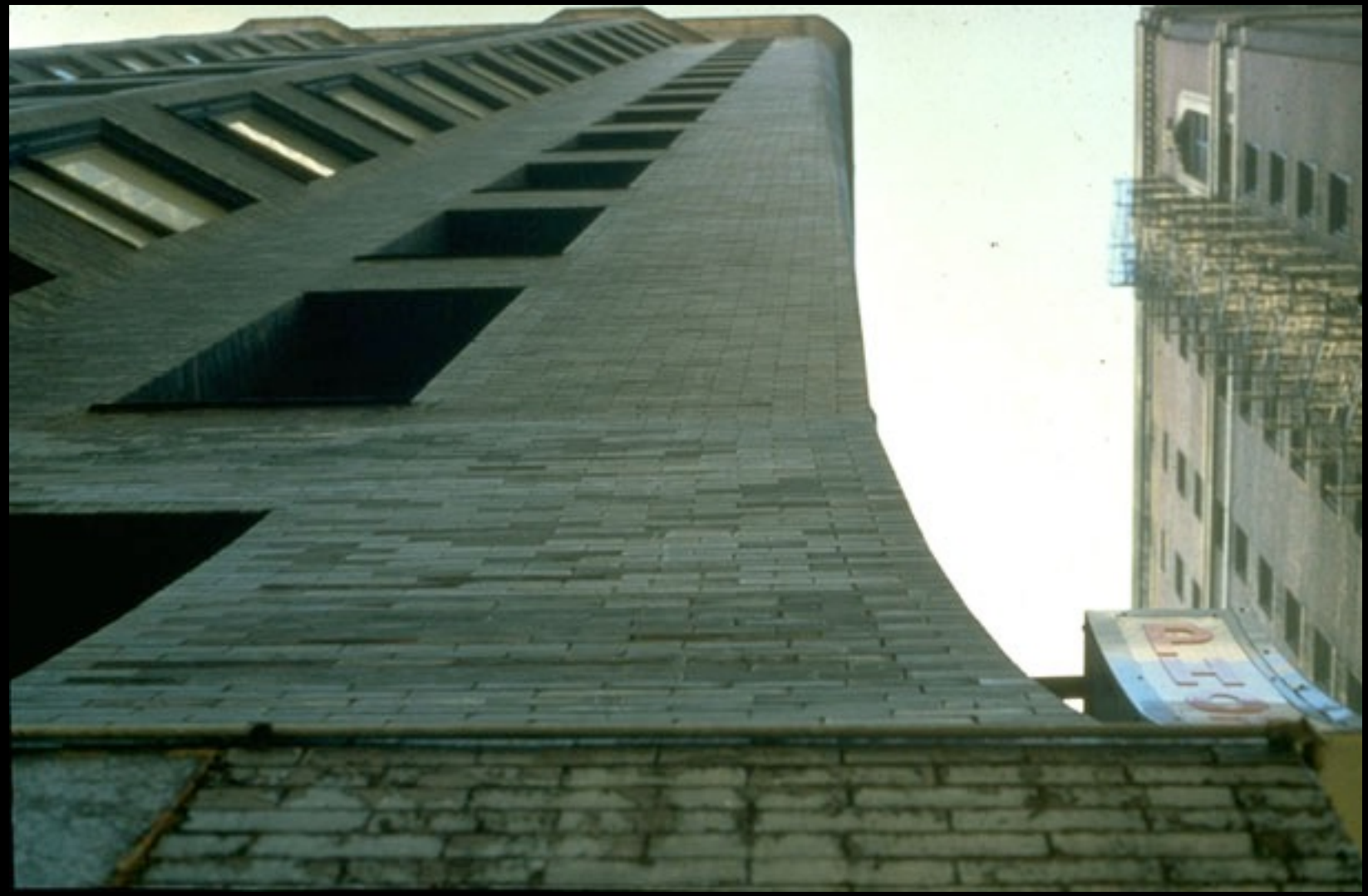




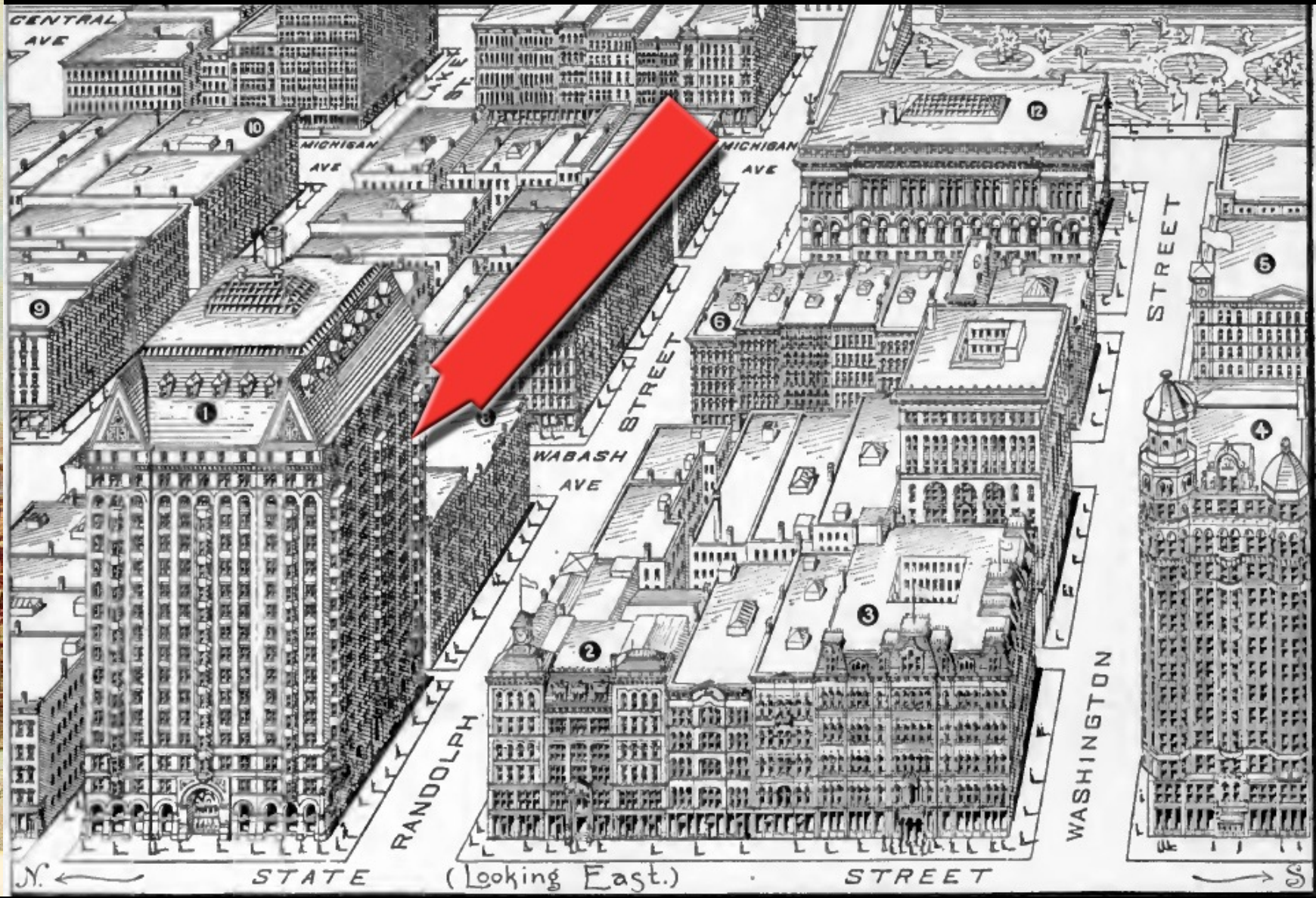


Burnham & Root, Monadnock, 1891


JACKSON ST.
PLYMOUTH
JACKSON ST.
CUSTOM HOUSE
STREET
QUINCY ST.
DEARBORN
ADAMS
(Looking South)
STREET
1
2
3
4
5
6
7
8
9
10




Burnham and Root, Masonic Temple, 1892




Masonic Temple Rand, McNally & Co.'s Bird's-eye Views and Guide to Chicago 1893


The Masonic Temple Building 1892-1939

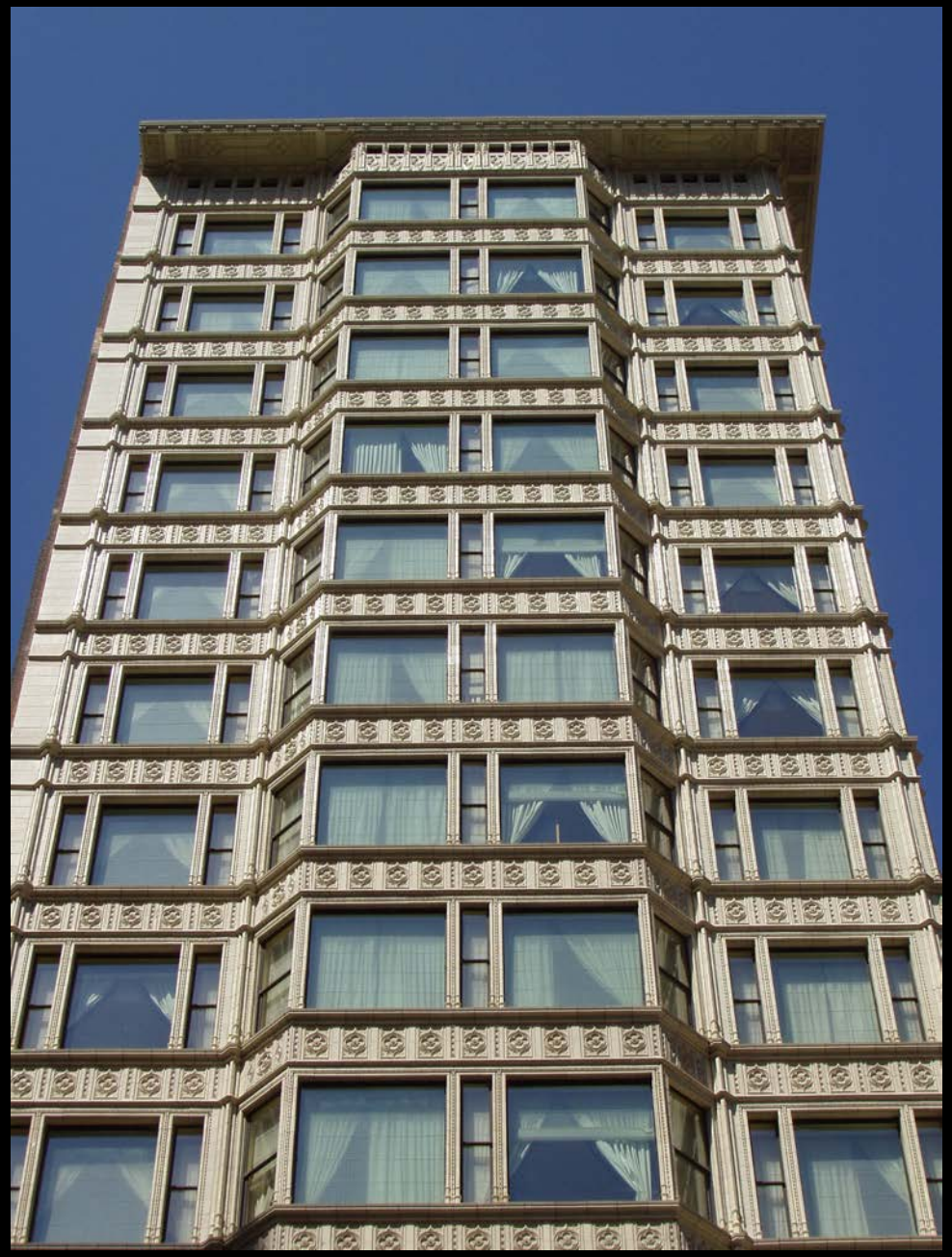
Stairways and Galleries of the Masonic Temple, 1892

Light well/Light court

One of the many interior meeting rooms

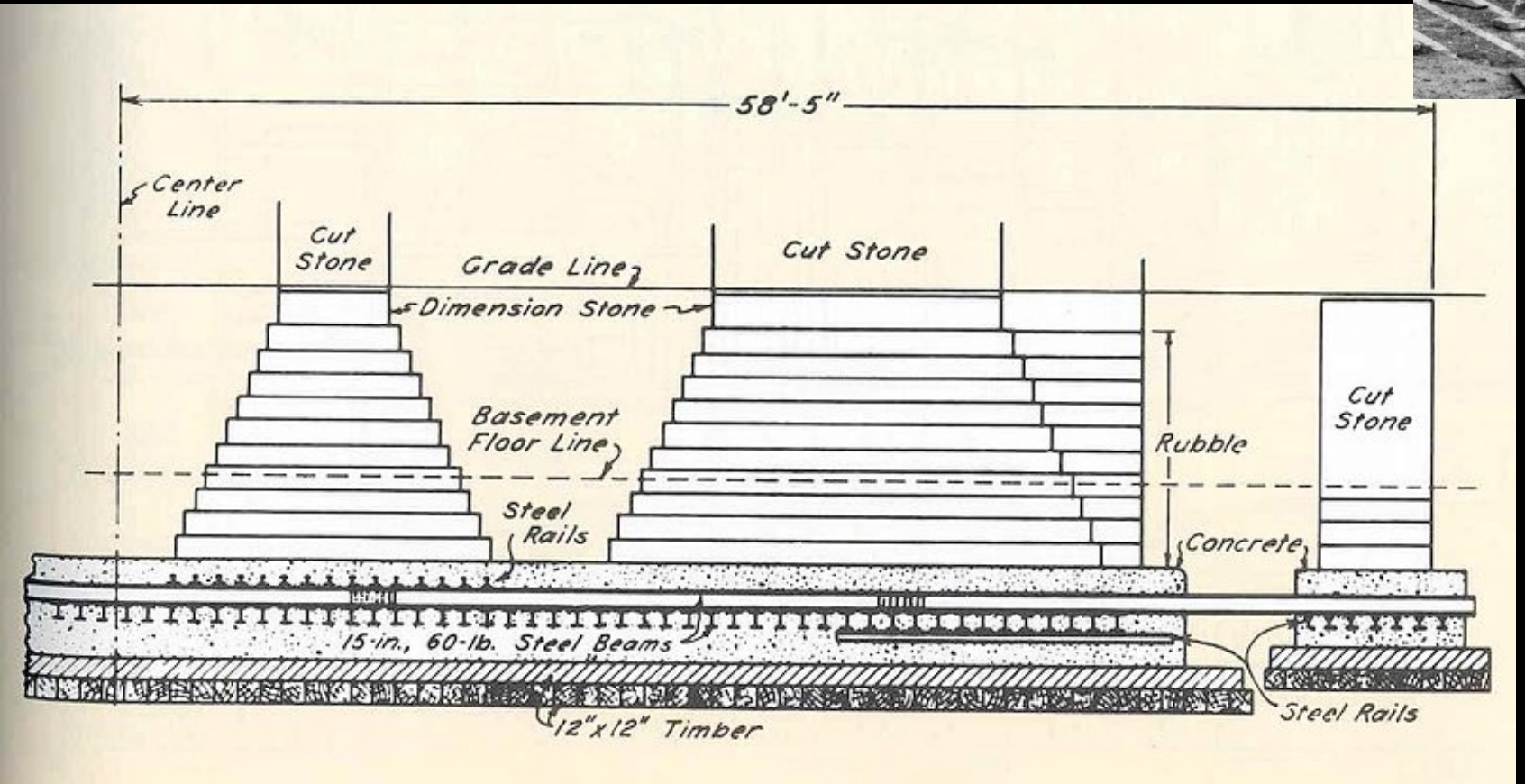
View of Randolph and State from the roof


Burnham & Root, Reliance Building, 1890-95

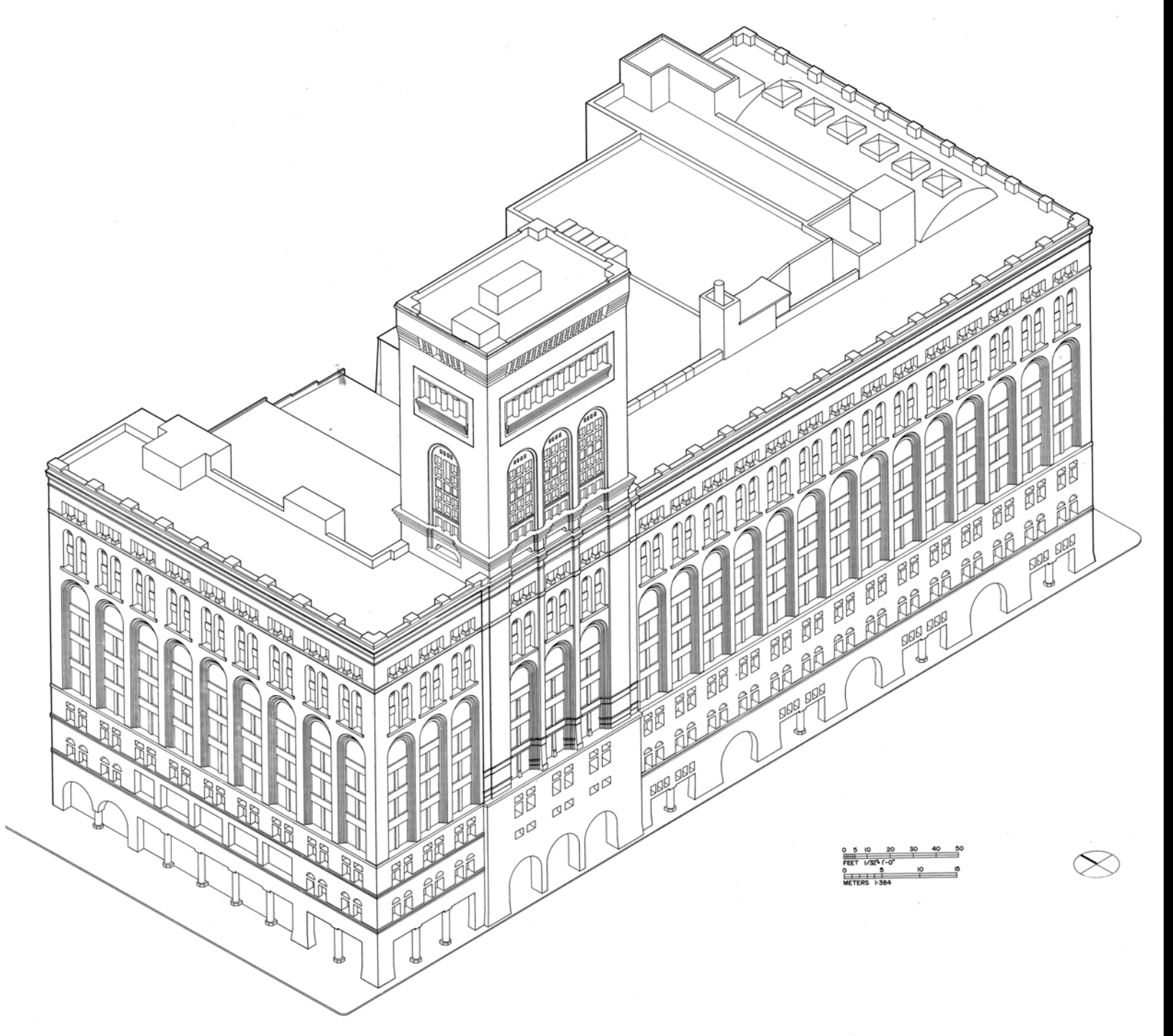


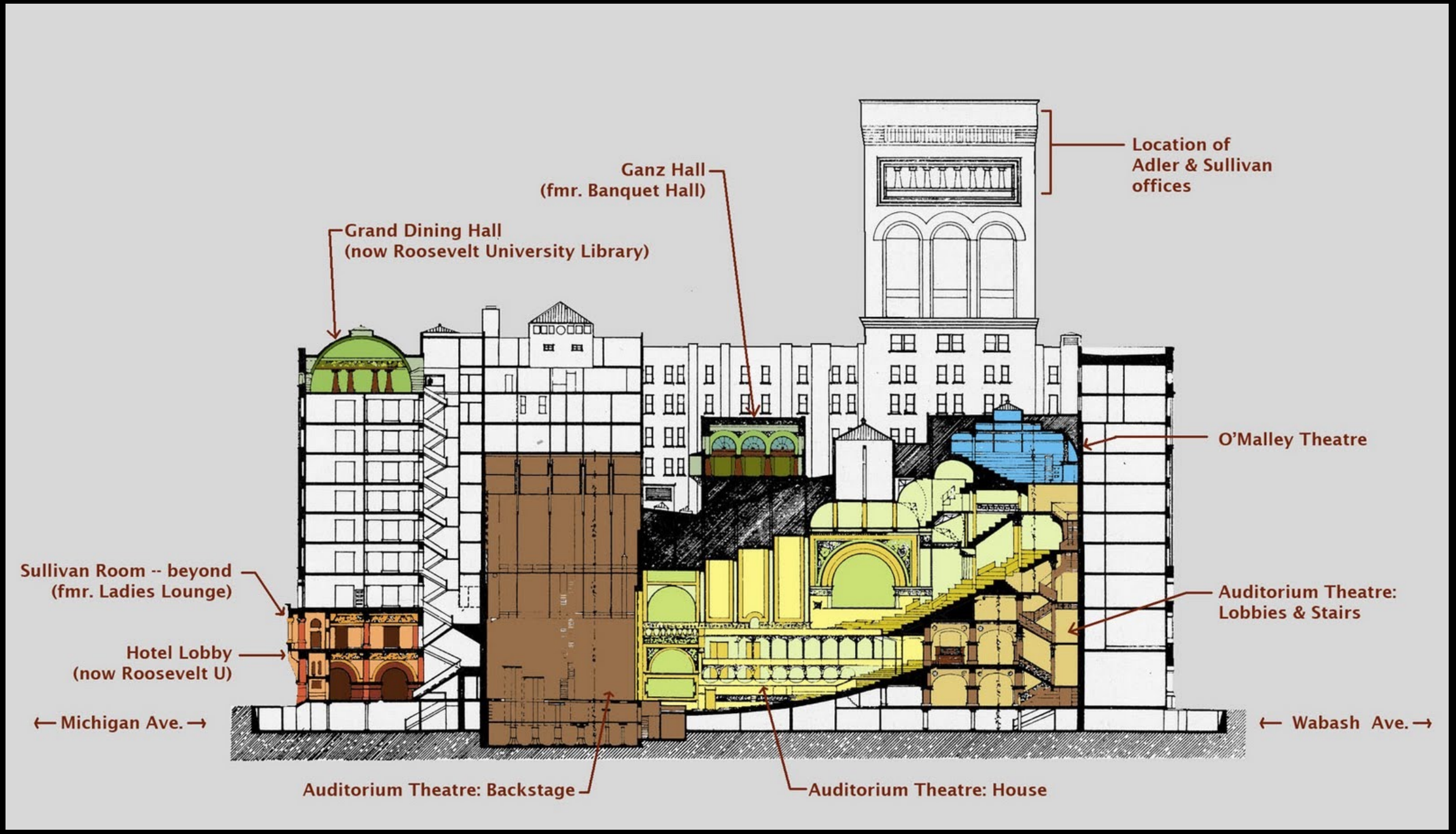

Dankmar Adler and Louis Sullivan, Auditorium Building, 1889

Auditorium Building Foundations

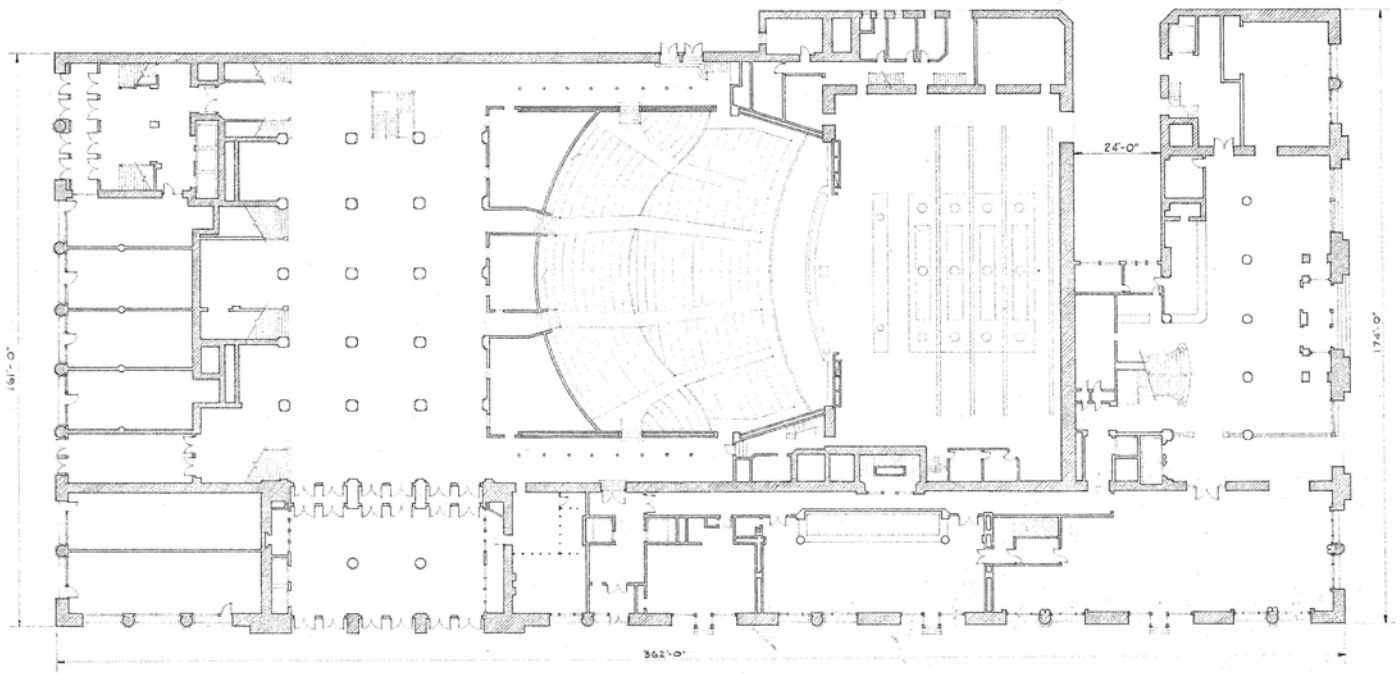



www.GreatBuildings.com


0 5 10 20 30 40 50
FEET 1/32"=1'-0"
0 5 10 15
METERS 1:384


Location of
Adler & Sullivan
offices
Ganz Hall
(fmr. Banquet Hall)
Grand Dining Hall
(now Roosevelt University Library)
O'Malley Theatre
Sullivan Room -- beyond
(fmr. Ladies Lounge)
Auditorium Theatre:
Lobbies & Stairs
Hotel Lobby
(now Roosevelt U)
← Michigan Ave. →
← Wabash Ave. →
Auditorium Theatre: Backstage
Auditorium Theatre: House

TRIM LINE




RESTORED PLAN BASED ON EARLY DRAWINGS AND PHOTOGRAPHS. PRINCIPAL ALTERATIONS INCLUDE AN OPEN ARCADE, 20 FEET DEEP, ALONG THE ENTIRE SOUTH SIDE, REMODELLED SHOPS ON WEST SIDE, TEMPORARY PARTITIONS ADDED IN EAST LOBBY.

# MAIN FLOOR PLAN

SCALE 3/64"=1'-0"

0 10 20 30 40
FEET SCALE 3/64"=1'-0"

ROBERT C. GIEBNER, DEL.

H.A.B.S. CHICAGO PROJECT 1963
UNDER DIRECTION OF UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE, BRANCH OF PLANS AND DESIGN

NAME OF STRUCTURE
AUDITORIUM BUILDING
N.W. CORNER MICHIGAN AVE. & CONGRESS ST. (EXTENDING THROUGH TO WABASH ST.), CHICAGO, COOK COUNTY, ILLINOIS

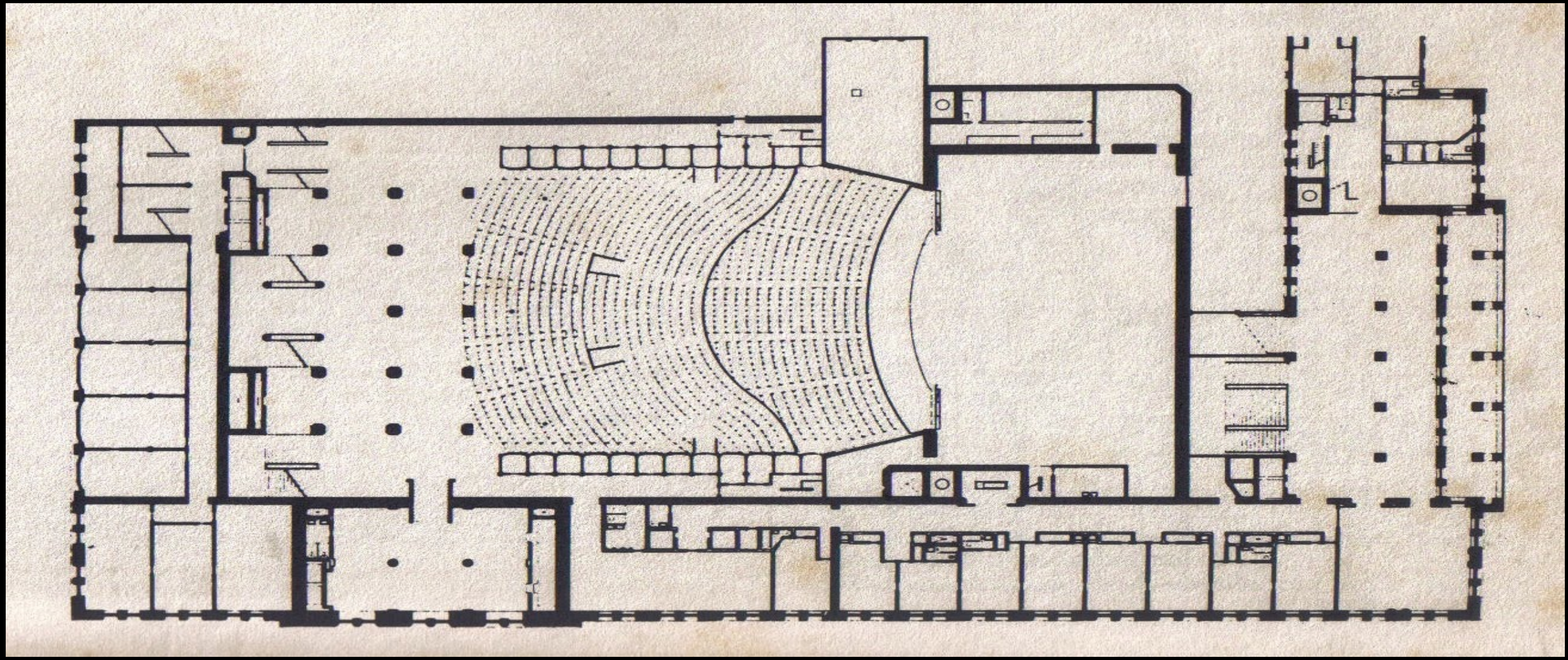
SURVEY NO. ILL 1007

HISTORIC AMERICAN BUILDINGS SURVEY
SHEET 2 OF 7 SHEETS

LIBRARY OF CONGRESS INDEX NUMBER

TRIM LINE

LC-HSZA1-1674

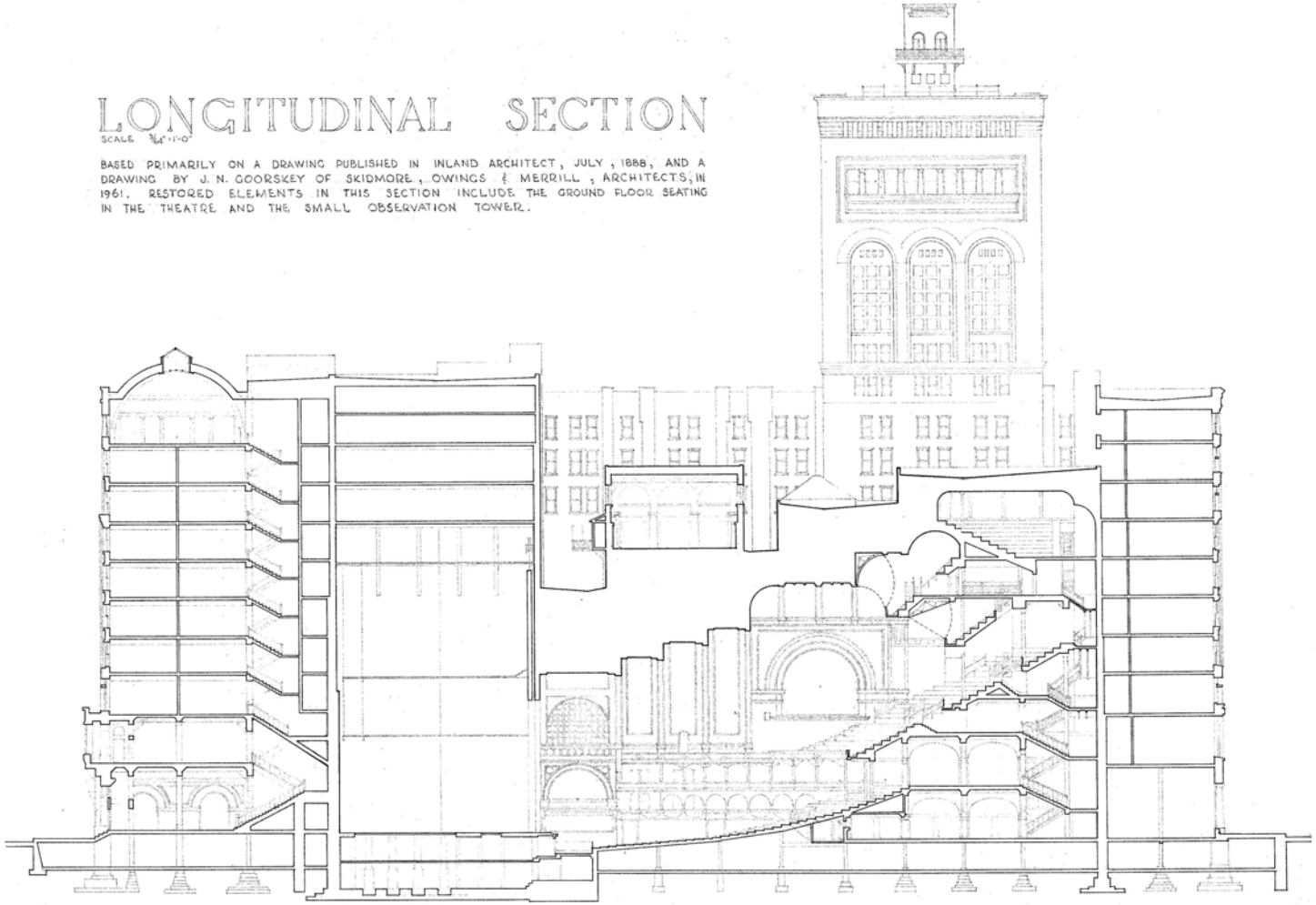


TRIM LINE

# LONGITUDINAL SECTION

SCALE 1/64"-1'-0"

BASED PRIMARILY ON A DRAWING PUBLISHED IN INLAND ARCHITECT, JULY, 1888, AND A DRAWING BY J. N. GOORSKEY OF SKIDMORE, OWINGS & MERRILL, ARCHITECTS, IN 1961. RESTORED ELEMENTS IN THIS SECTION INCLUDE THE GROUND FLOOR SEATING IN THE THEATRE AND THE SMALL OBSERVATION TOWER.



2 4 6 8 10 20 30 40
FEET SCALE 1/64"-1'-0"

ROBERT C. GIEBNER, DEL.

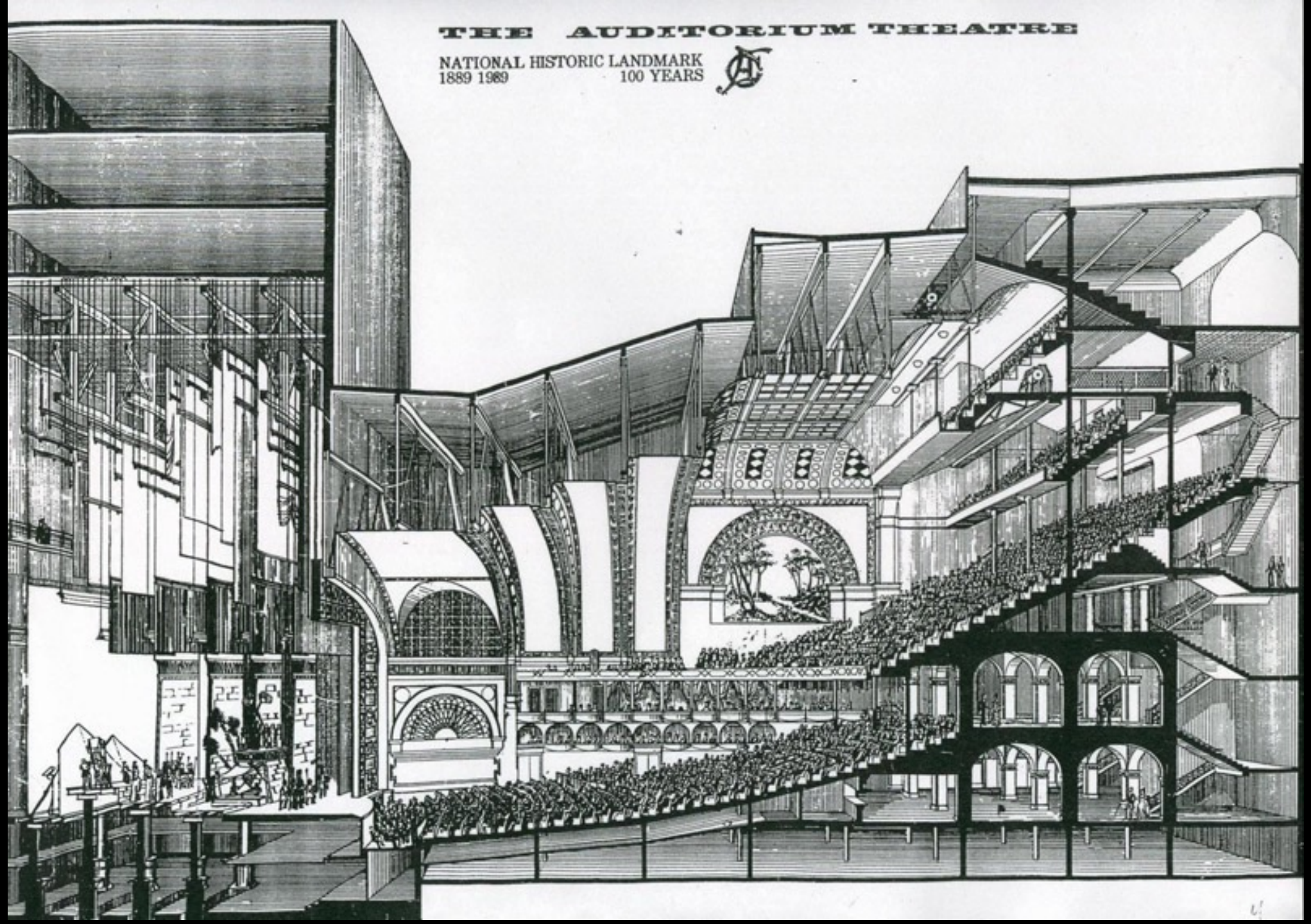
| | | | | |
|---|---|---|---|---|
| HABS. CHICAGO PROJECT, 1963<br>UNDER DIRECTION OF UNITED STATES DEPARTMENT OF THE INTERIOR<br>NATIONAL PARK SERVICE, BRANCH OF PLANS AND DESIGN | NAME OF STRUCTURE<br>AUDITORIUM BUILDING<br>N.W. CORNER MICHIGAN AVE. & CONGRESS ST. (EXTENDING THROUGH TO WABASH ST.), CHICAGO, COOK COUNTY, ILLINOIS | SURVEY NO.<br>ILL<br>1007 | HISTORIC AMERICAN BUILDINGS SURVEY<br>SHEET 4 OF 7 SHEETS | LIBRARY OF CONGRESS INDEX NUMBER |

TRIM LINE

LC-USZA1-1545 AND LC-USZA1-132

# THE AUDITORIUM THEATRE

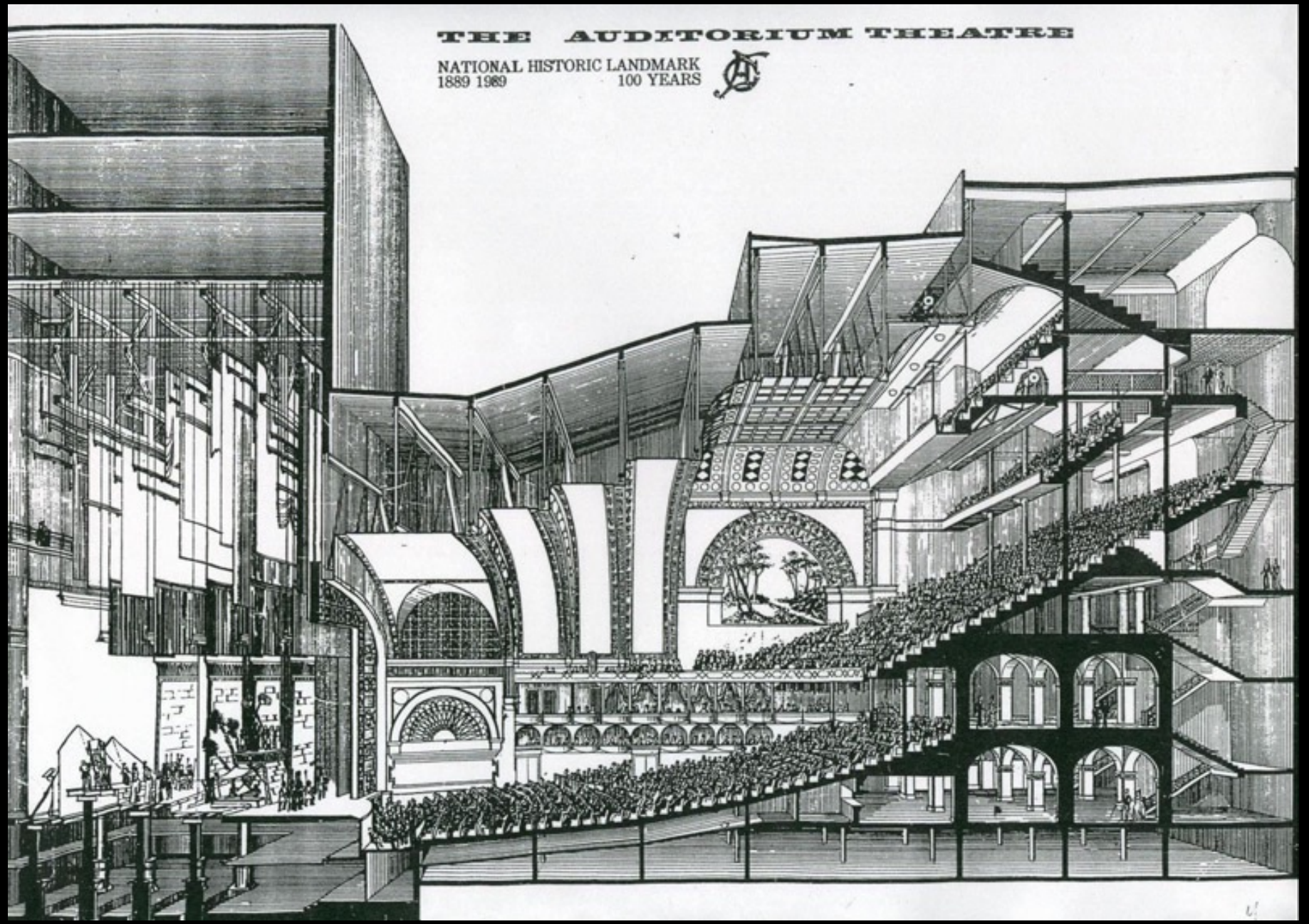
NATIONAL HISTORIC LANDMARK
1889 1989 100 YEARS



Adler & Sullivan, Transportation Building, Columbian Exposition, 1893

# THE AUDITORIUM THEATRE

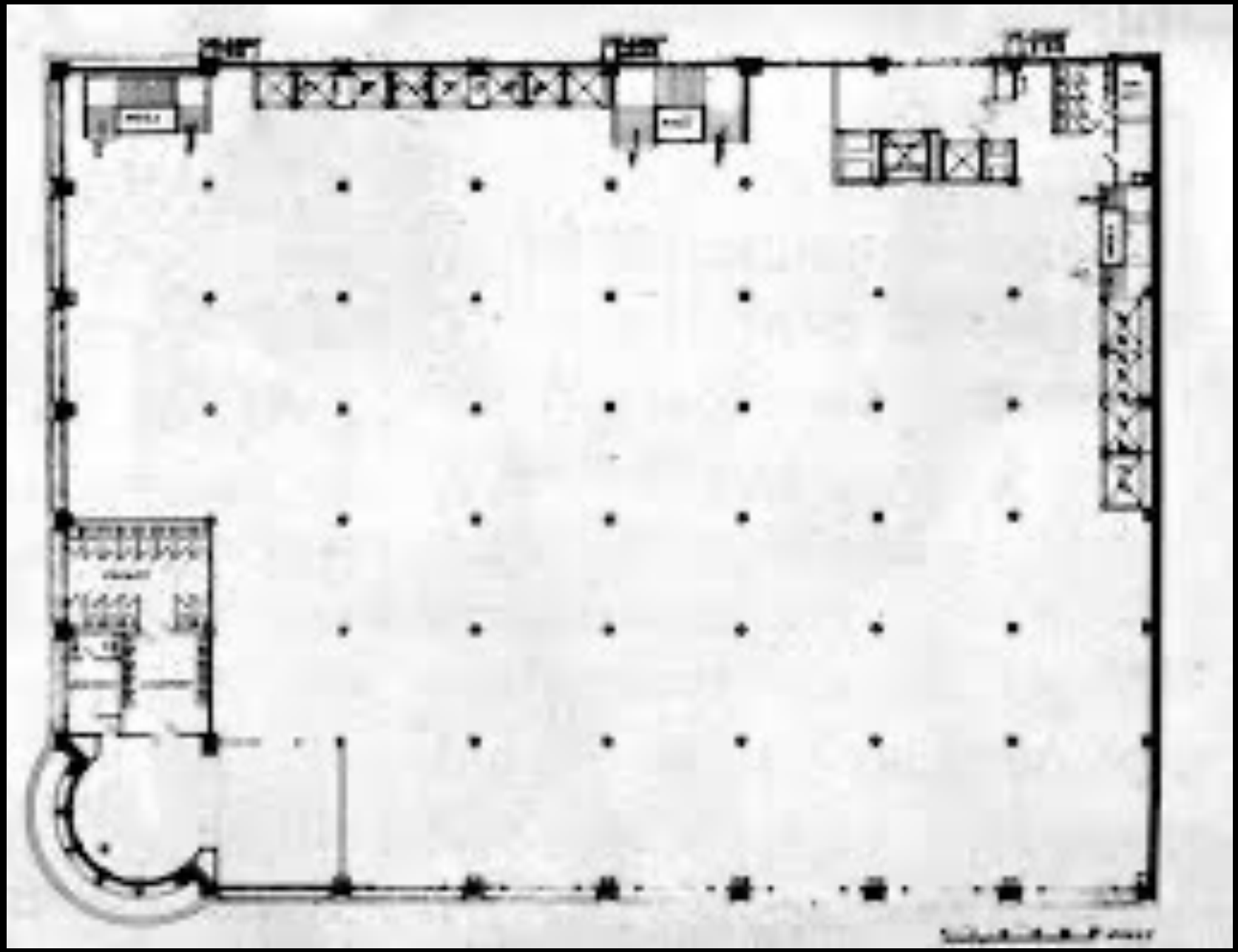
NATIONAL HISTORIC LANDMARK
1889 1989 100 YEARS




“Form follows function.” Louis Sullivan

Louis Sullivan, Carson, Pirie, Scott & Co., 1899-1904


Carson
Pirie
Scott

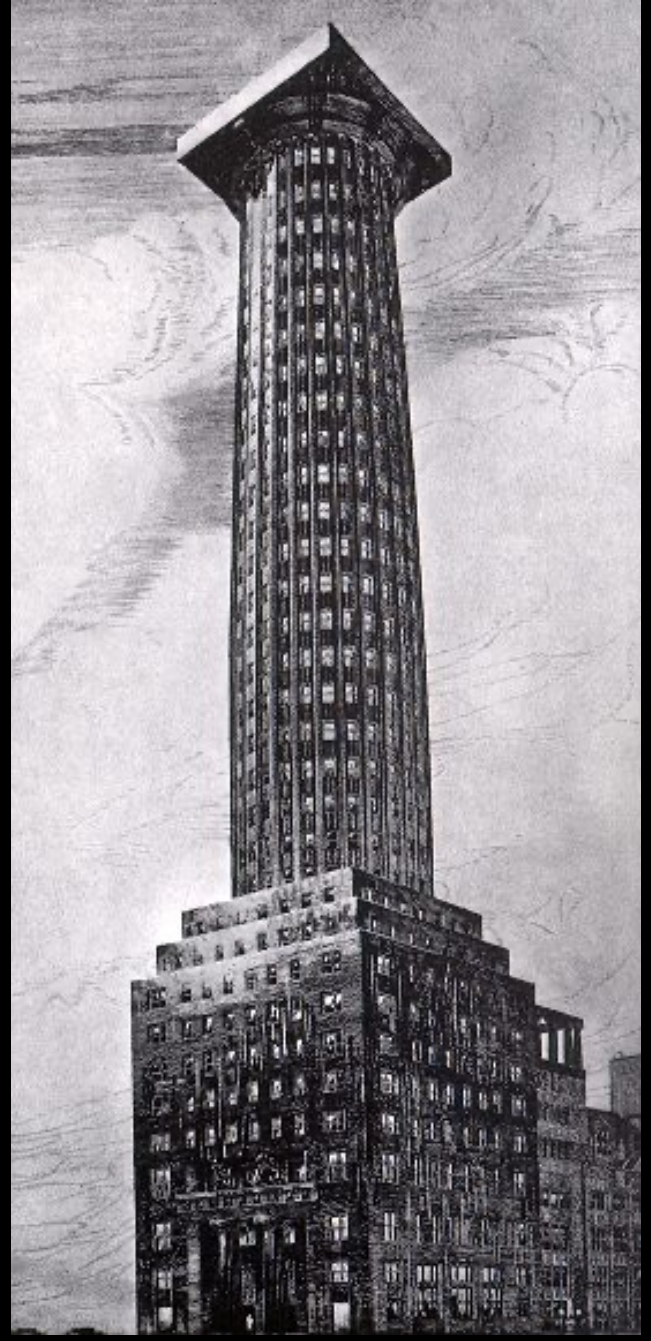


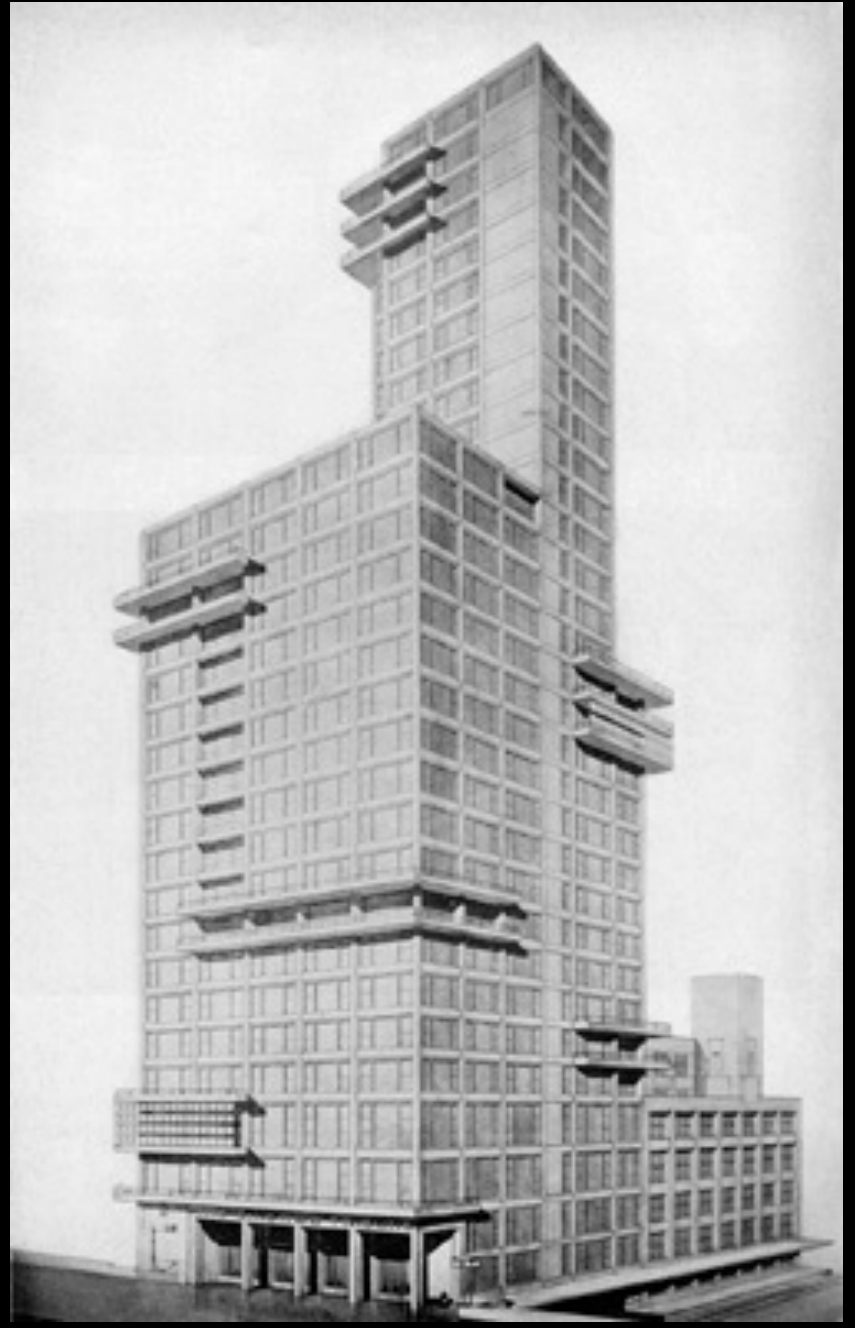

SUNNIES
IN THE SUN
SUNNIES
IN THE SUN

# What was Louis Sullivan’s position on architectural ornament?

I should say that it would be greatly for our aesthetic good if we should refrain entirely from the use of ornament for a period of years in order that our thought might concentrate acutely upon the production of buildings well formed and comely in the nude. We should thus perforce eschew many undesirable things, and learn by contrast how effective it is to think in a natural, favorous and wholesome way…We shall have learned, however, that ornament is mentally a luxury, not a necessity, for we shall have discerned the limitations as well as the great value of unadorned masses. We have in us romanticism, and feel a craving to express it. We feel intuitively that our strong, athletic, and simple forms will carry with natural ease the raiment of which we dream, and that our buildings thus clad in a garment of poetic imagery, half hid as it were in choice products of loom and mine, will appeal with redoubled power, like a sonorous melody overlaid with harmonious voices.

Louis Sullivan, *Ornament in Architecture*, 1892

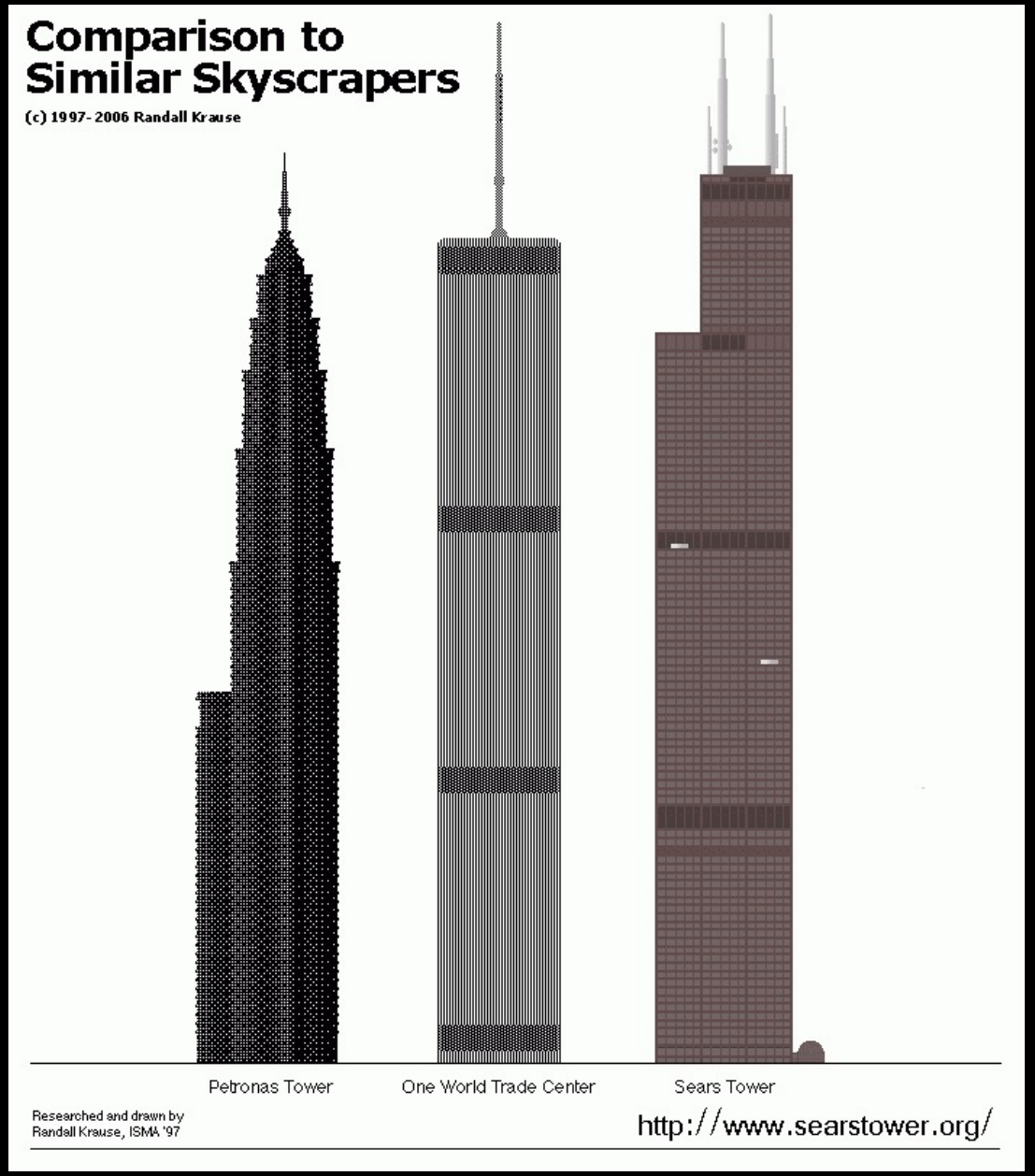




Adolf Loos, Tribune Tower Competition, 1922  Walter Gropius, Tribune Tower Competition, 1922


Raymond Hood and John M. Howells,
Tribune Tower, 1924

Skidmore, Owings and Merrill, Fazlur Kahn and Bruce Graham, Willis Tower, formerly named Sears Tower, 1973



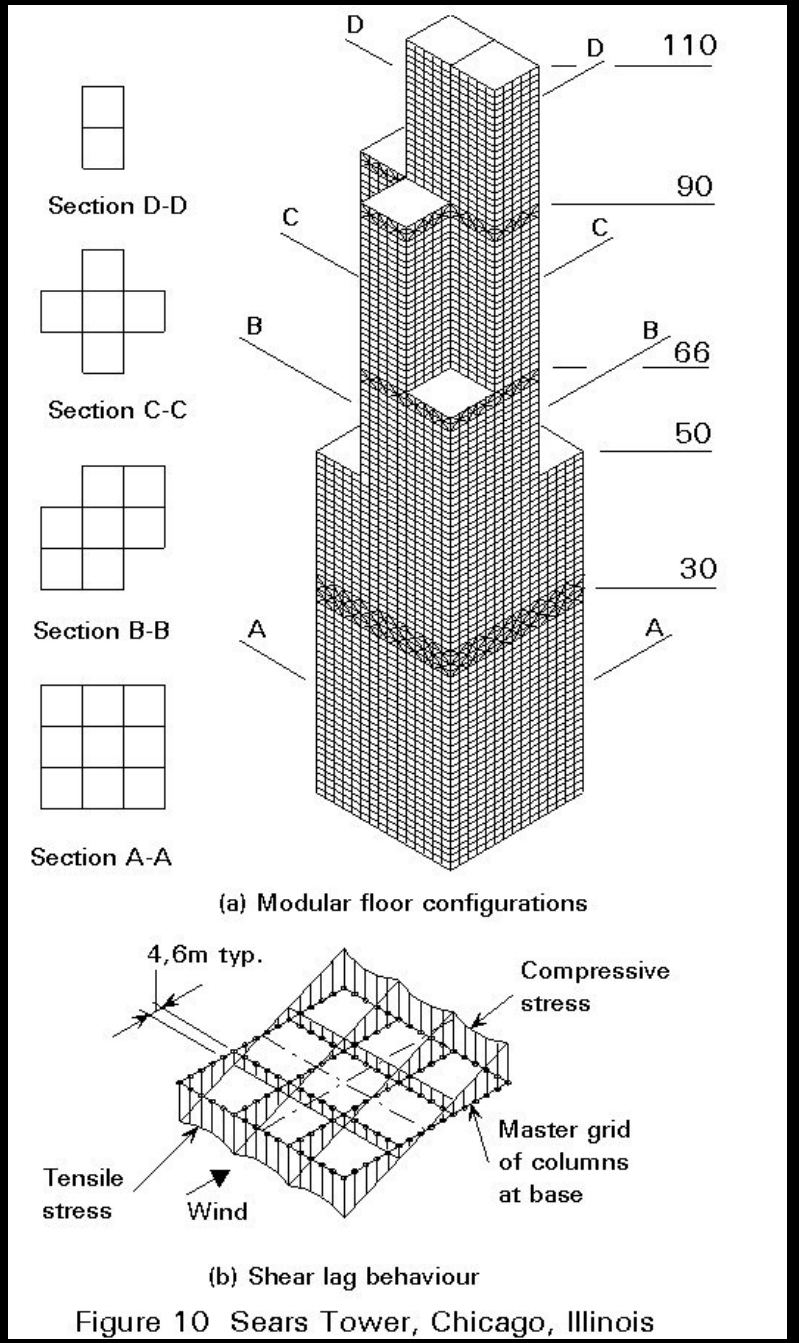




Figure 10 Sears Tower, Chicago, Illinois

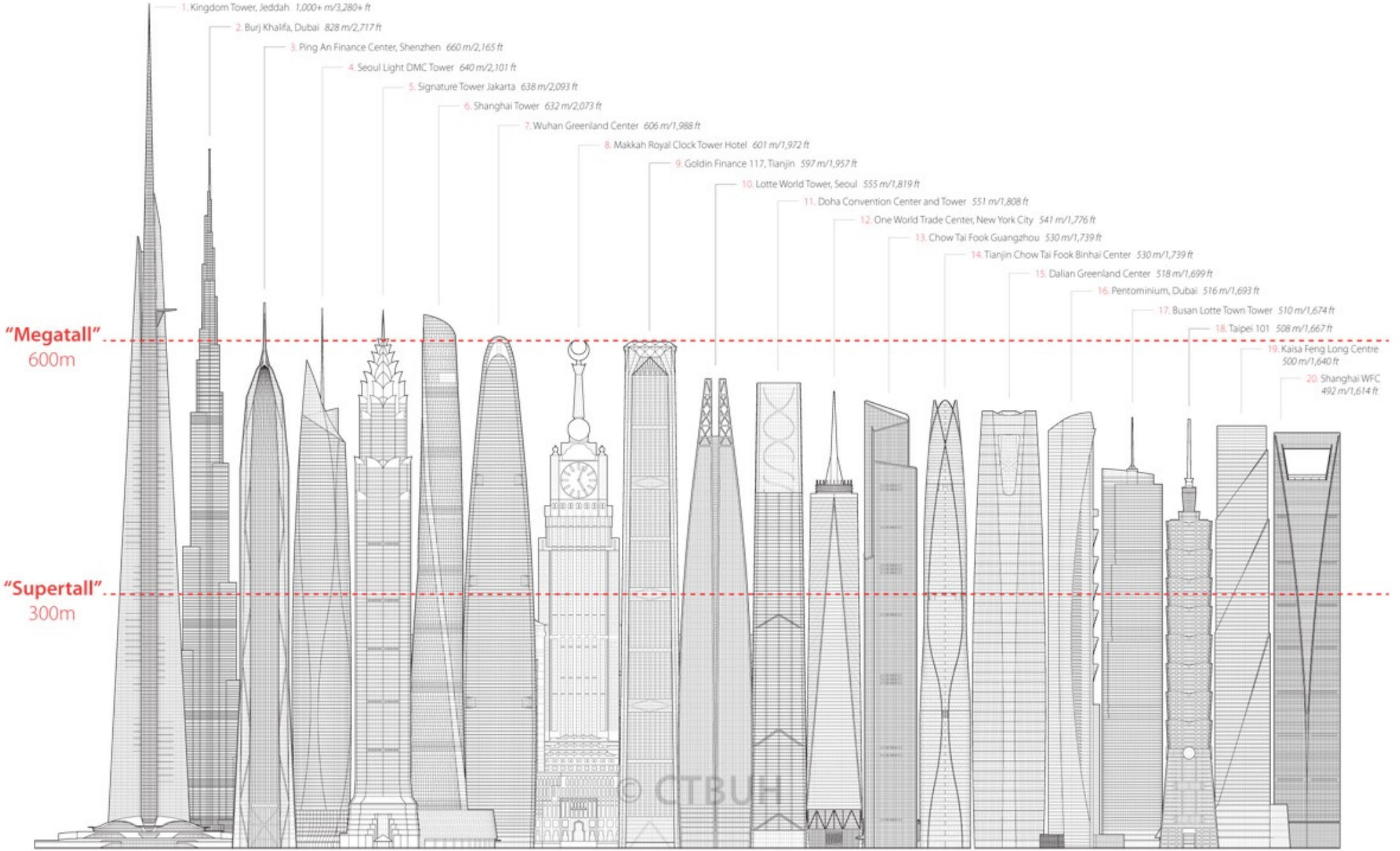
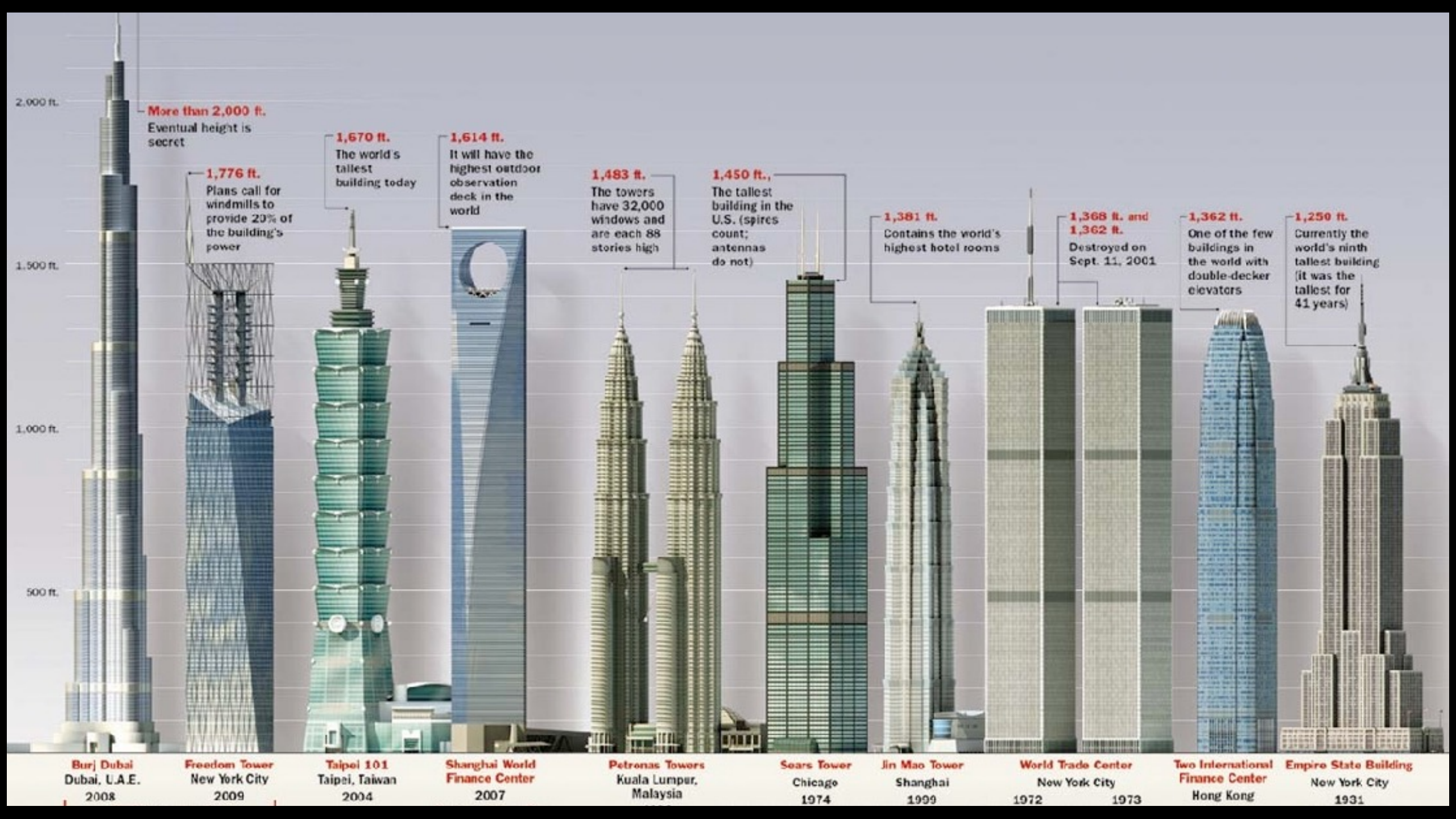



**Diagram of the World's 20 Tallest in 2020 (estimated as of Dec 2011) © CTBUH**


2,000 ft.
1,500 ft.
1,000 ft.
500 ft.
More than 2,000 ft.
Eventual height is secret
1,776 ft.
Plans call for windmills to provide 20% of the building's power
1,670 ft.
The world's tallest building today
1,614 ft.
It will have the highest outdoor observation deck in the world
1,483 ft.
The towers have 32,000 windows and are each 88 stories high
1,450 ft.,
The tallest building in the U.S. (spires count; antennas do not)
1,381 ft.
Contains the world's highest hotel rooms
1,368 ft. and 1,362 ft.
Destroyed on Sept. 11, 2001
1,362 ft.
One of the few buildings in the world with double-decker elevators
1,250 ft.
Currently the world's ninth tallest building (it was the tallest for 41 years)
Burj Dubai
Dubai, U.A.E.
2008
Freedom Tower
New York City
2009
Taipei 101
Taipei, Taiwan
2004
Shanghai World Finance Center
2007
Petronas Towers
Kuala Lumpur, Malaysia
Sears Tower
Chicago
1974
Jin Mao Tower
Shanghai
1999
World Trade Center
New York City
1972
1973
Two International Finance Center
Hong Kong
Empire State Building
New York City
1931