

# Eiffel Tower



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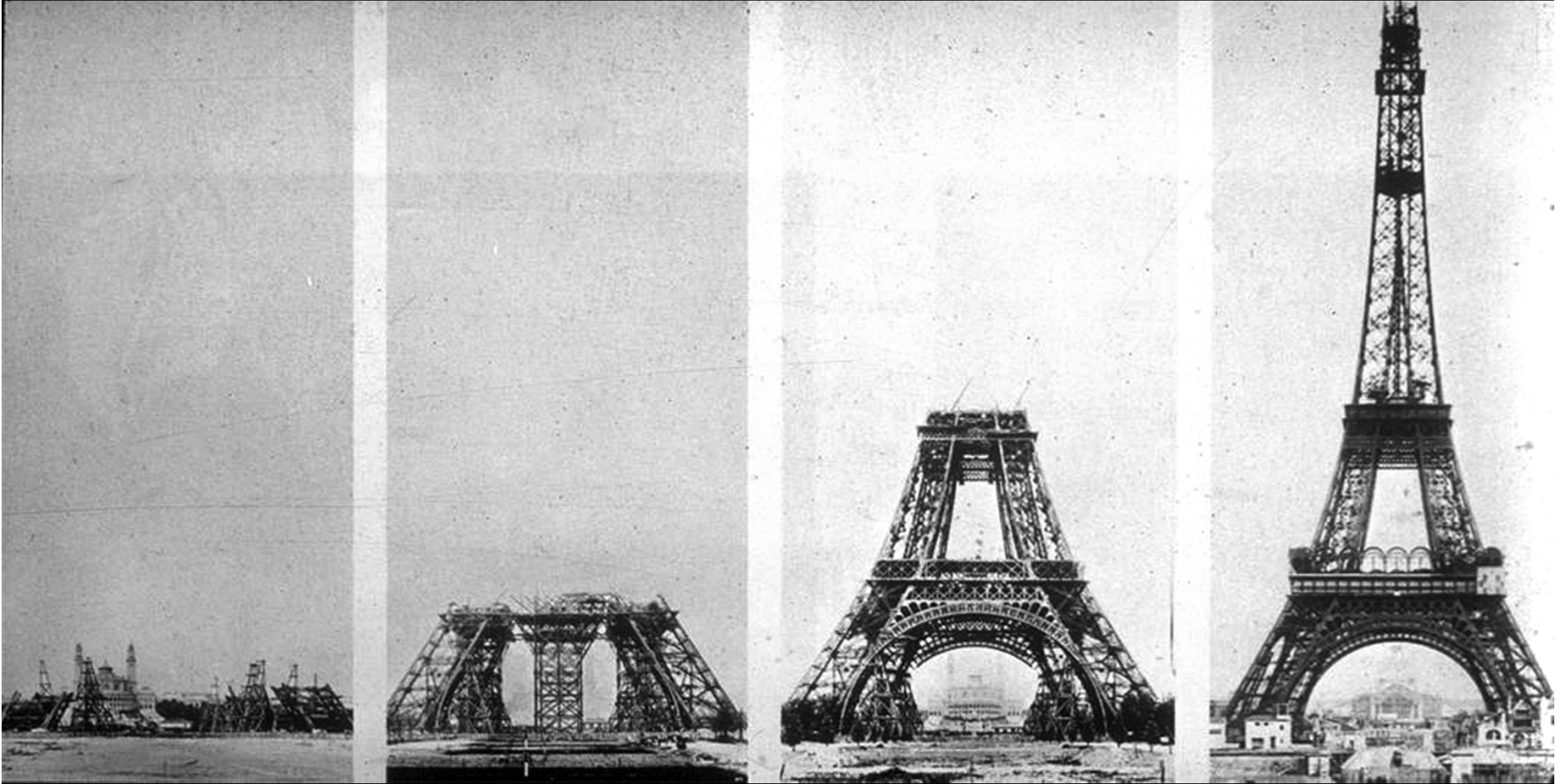


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ARTstor - [www.artonfile.com](http://www.artonfile.com)



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<http://www.eiffel-tower.us/Eiffel-Tower-Images>



[http://en.wikipedia.org/wiki/File:Eiffel\\_tower\\_from\\_the\\_neighborhood.jpg](http://en.wikipedia.org/wiki/File:Eiffel_tower_from_the_neighborhood.jpg)

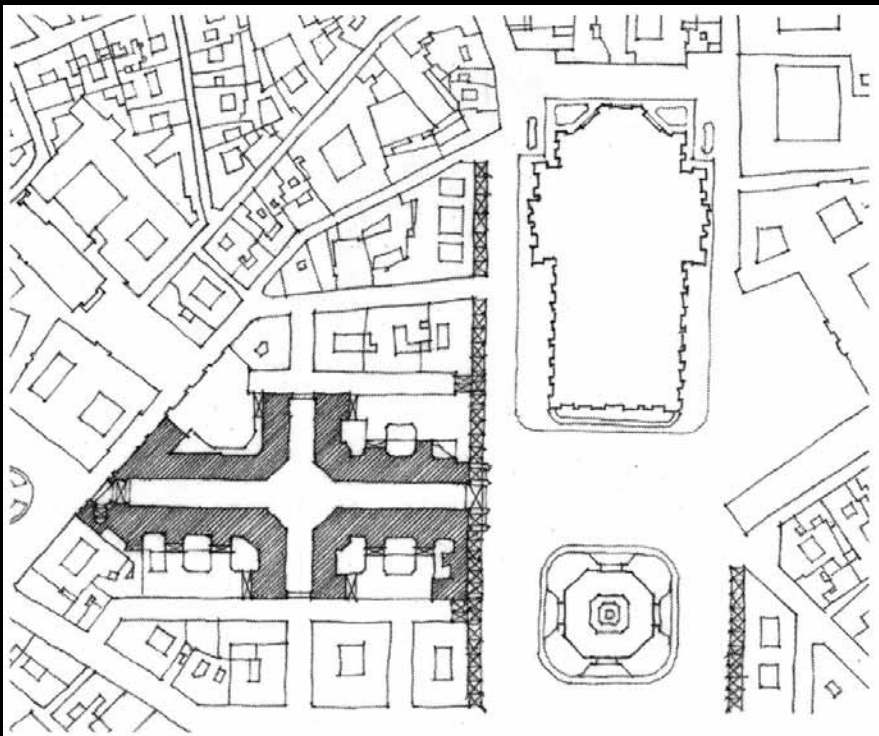
# Galleria Vittorio Emanuele

Milan, Italy: 1865-1877

Giuseppe Mengoni

Cruciform plan with a large octagonal dome over the crossing

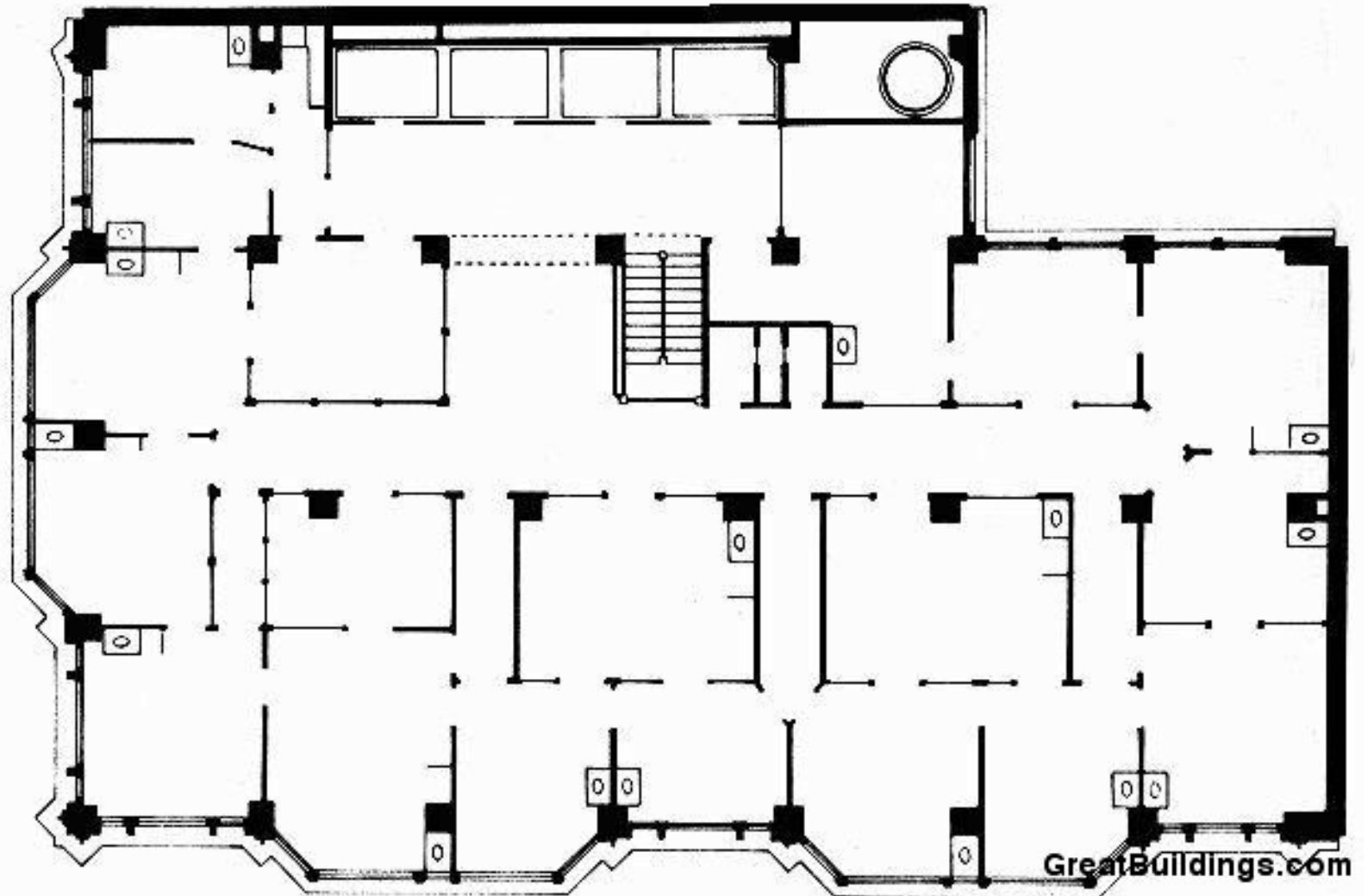
Vast arcade that covered shops and cafes.



# The Reliance Building, Chicago, Illinois: 1890

Daniel H. Burnham and John W. Root

Ancestor of the Modern Skyscraper



# The Reliance Building, Chicago, Illinois: 1890





# The Reliance Building

Four-story structure was completed in 1890

Extended to 13 floors in 1894



# The Reliance Building, Chicago, Illinois: 1890

Designed based on proportions

Steel frame faced with terracotta



# The World's Columbian Exposition: 1893, Chicago on the 400th anniversary of Columbus's arrival in the New World



Shepp's World's Fair Photographed, Chicago and Philadelphia, 1893, and from Glimpses of the World's Fair Through a Camera, Chicago, 1893.

# The World's Columbian Exposition: 1893, Chicago on the 400th anniversary of Columbus's arrival in the New World



# The Paris Opera House, Paris, France: 1874

Won by competition – Charles Garnier

Tight Site – Carriage Ramp, Approach Steps

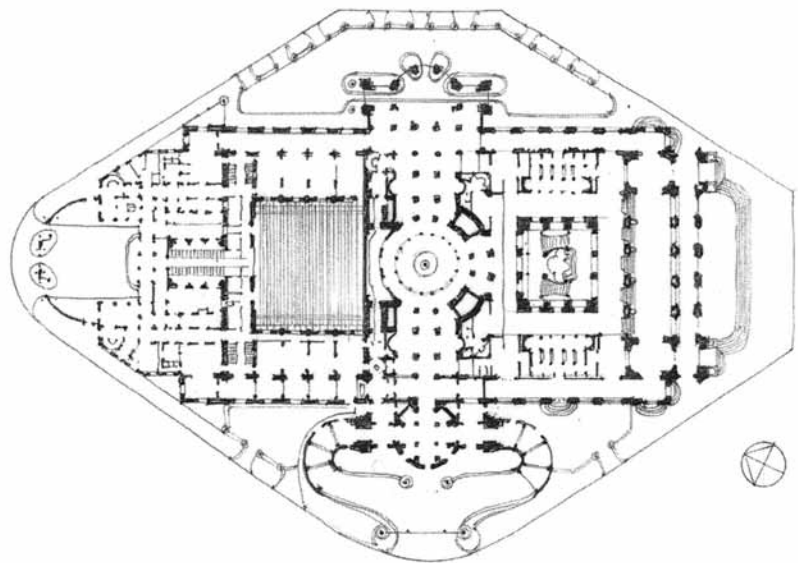
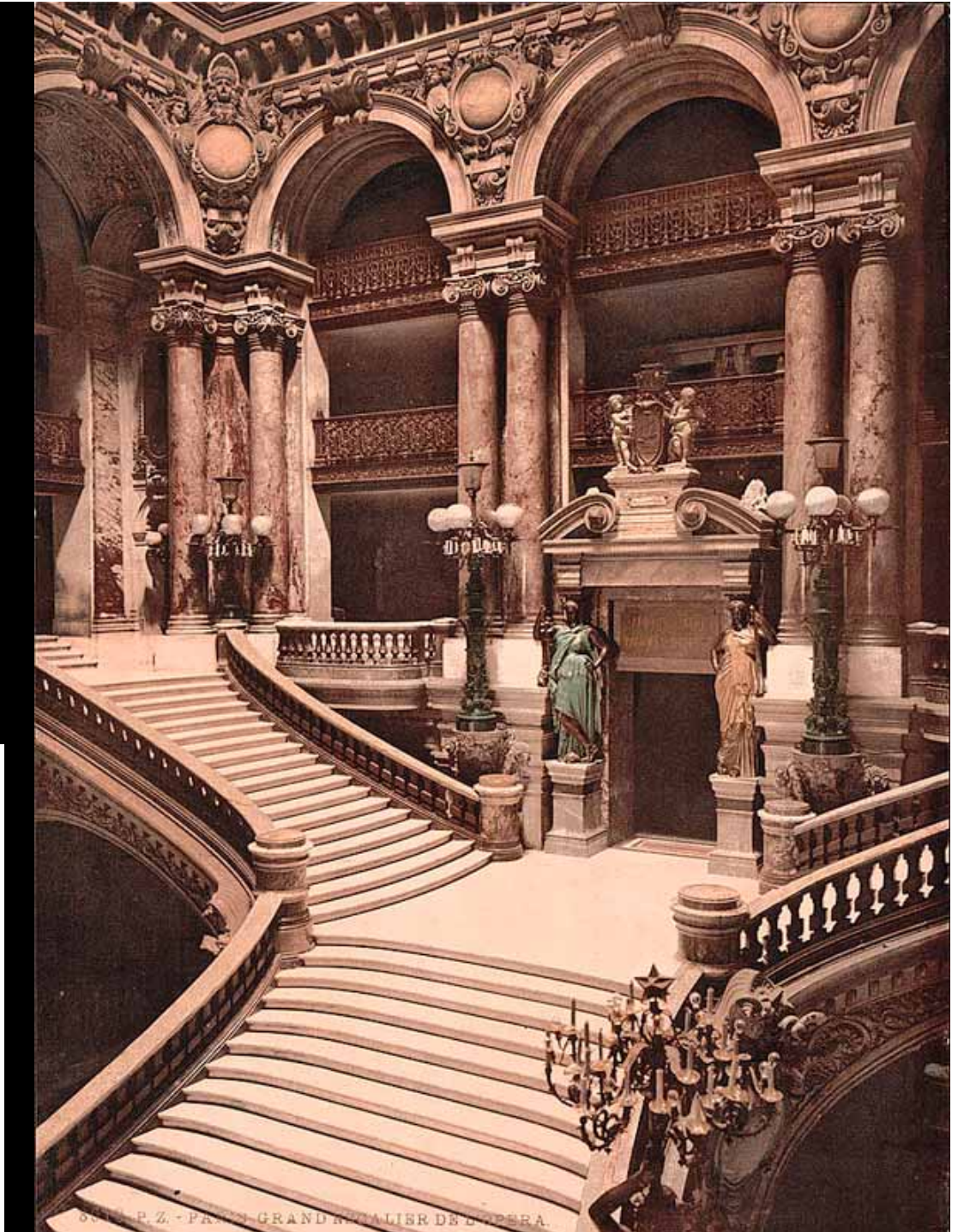


# The Paris Opera House 1874

Paris, France

Monumental and much ornament – multicolored marble and elaborate statuary

A place to be seen – large staircase and balconies

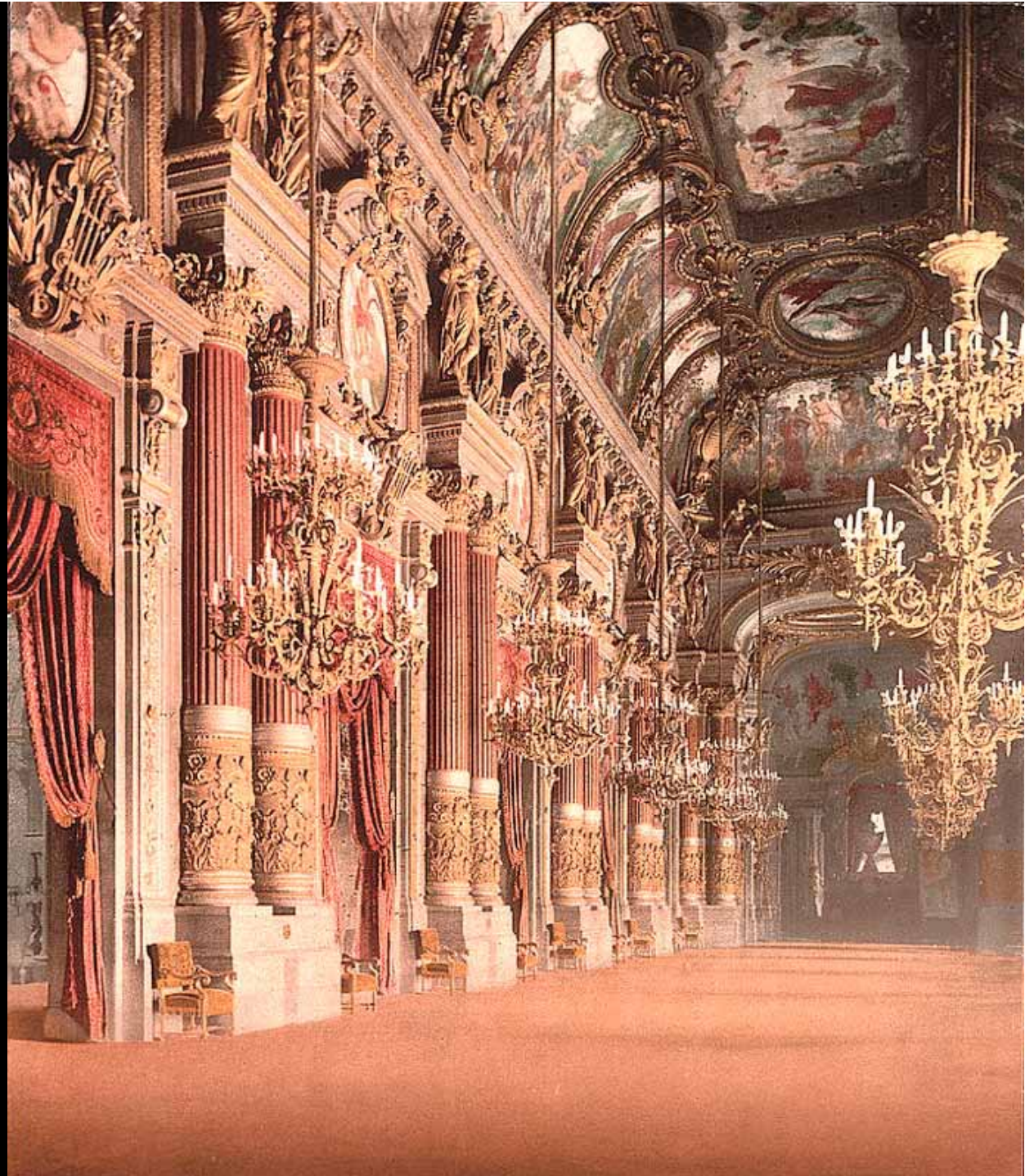


# The Paris Opera House

1874

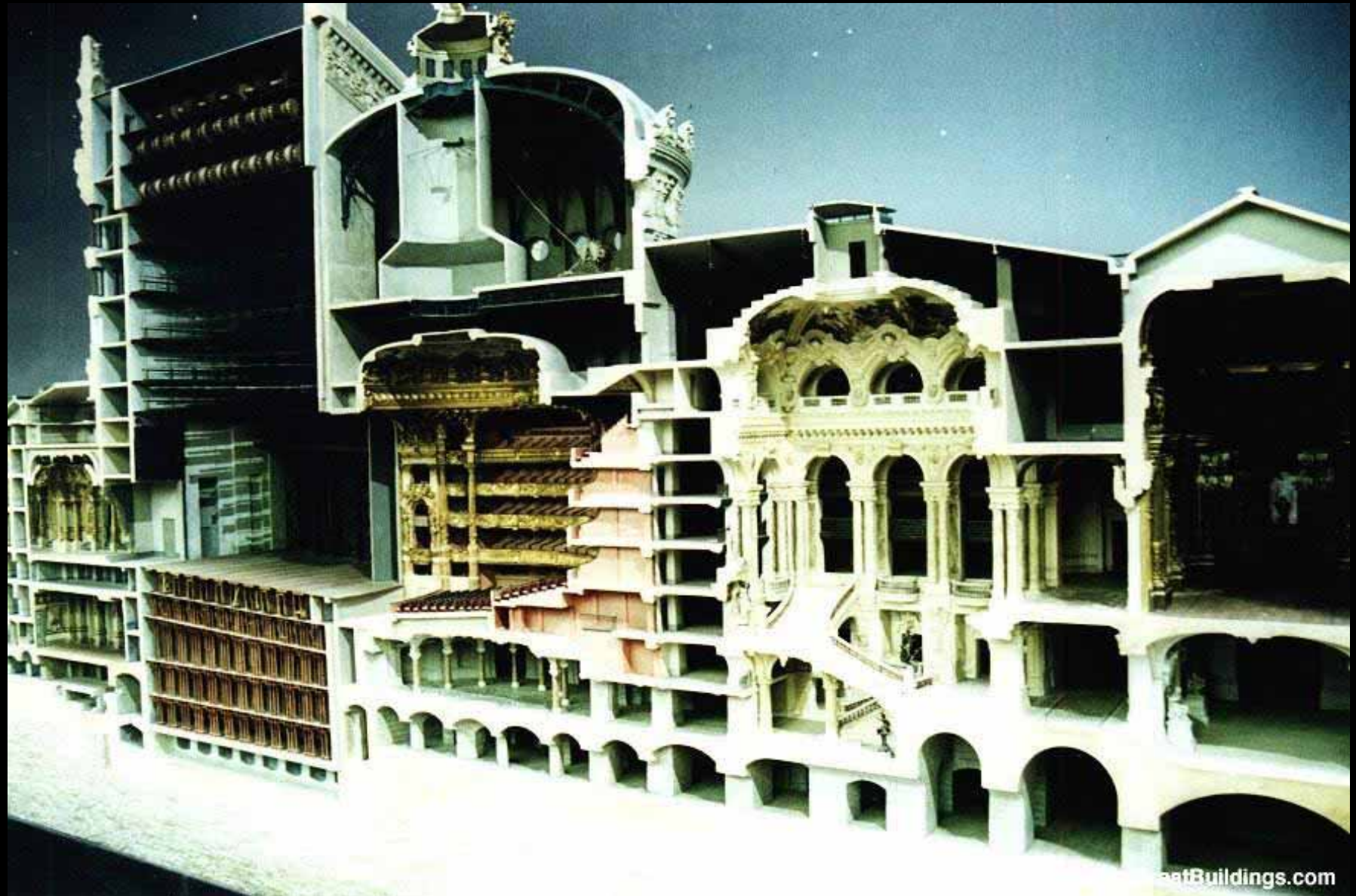
Paris, France

The marble ornament was not structural, but hung from a steel frame



# The Paris Opera House, Paris, France: 1874

Arranged around a central horseshoe auditorium





# The Paris Opera House, Paris, France: 1874



# 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