

A Tale of Three Houses

Mike Day 22 October 2023



Palais Garnier



Bayreuth Festspielhaus



Sydney Opera House

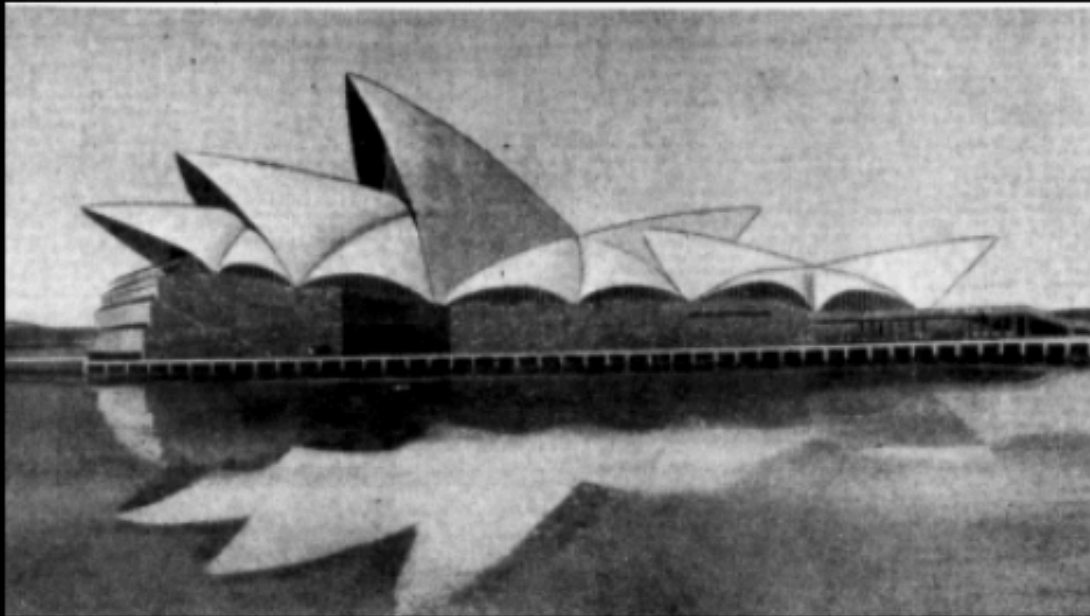


- Introduction
- Comparison of the three buildings
- Paris
- Interval
- Bayreuth
- Sydney
- Conclusions
- Questions

A Tale of Three Houses Introduction

Mike Day

1957 Inspiration



Arthur Baldwinson's perspective of Jørn Utzon's winning SOH design

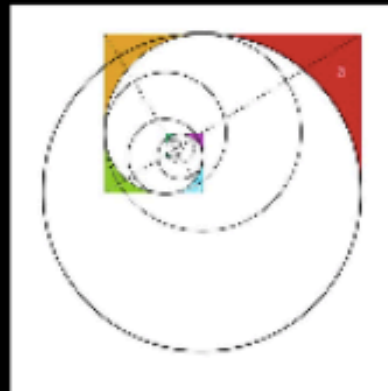


Siegfried, Sieglinde and Hitler



1957 Guggenheim Museum NY

Frank Lloyd Wright Organic Architecture Geometry



Jørn Utzon 1961



1970 Visited Bayreuth

What is good architecture?

Three elements of good architecture

Firmitas, utilitas, venustas Vitruvius 1st century

Firmness - Structurally strong - well constructed - durable

Commodity - good planning – meets user's functional requirements

Delight - appeals to the senses and the intellect - makes you feel elevated

The ideal team for the creation of great architecture

Great client with appropriate budget and clear, preferably unchanging, brief

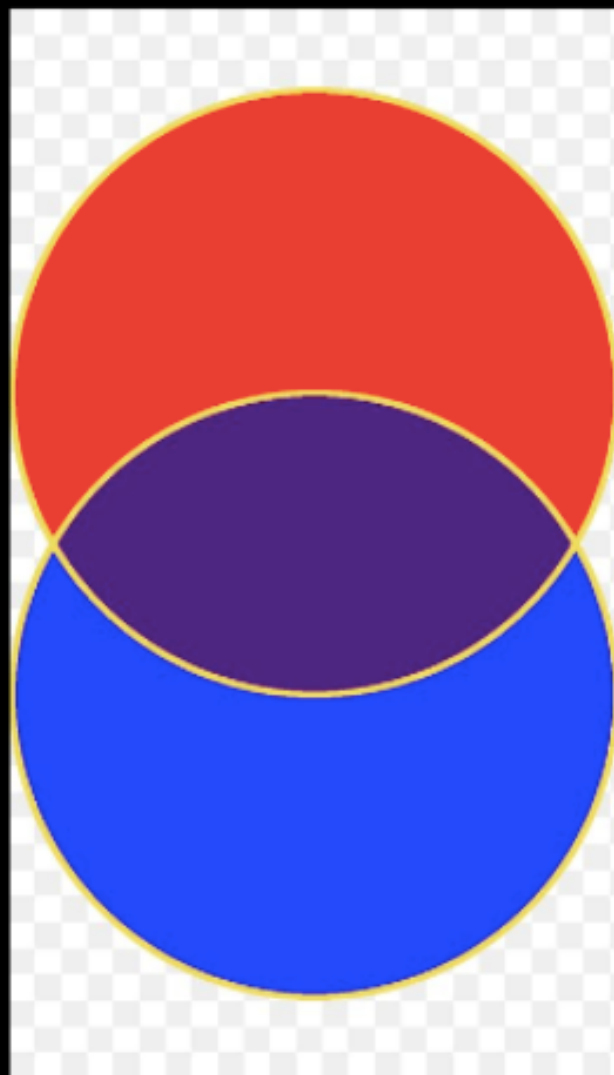
Great architect with vision (and a supportive consulting team)

Great builder with appropriate experience, prepared to innovate

Client expectations - Project Variables

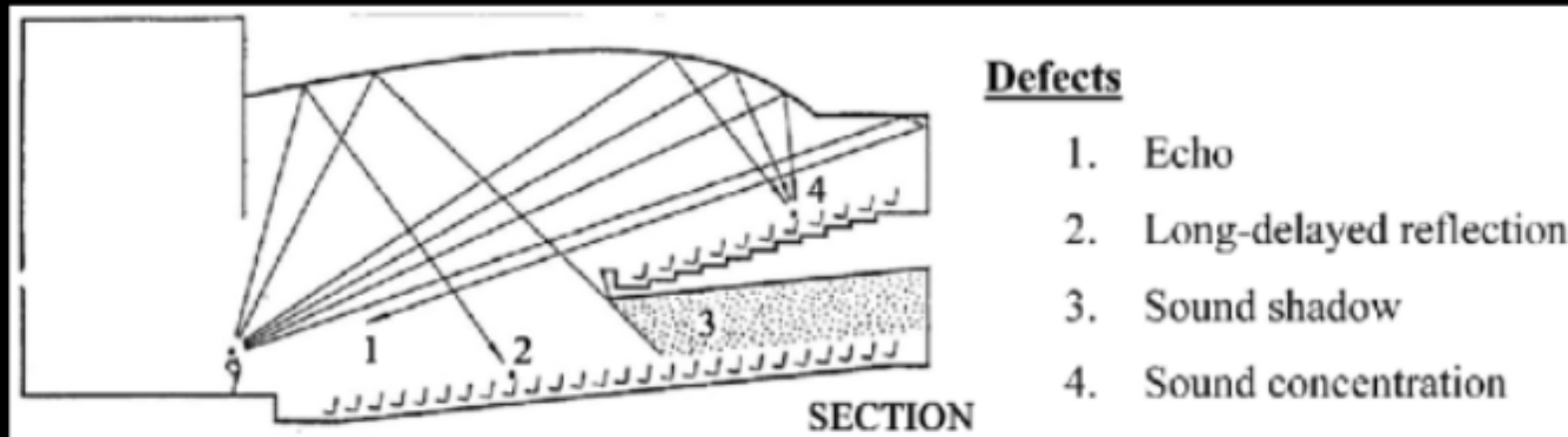


The performance space Traditional proscenium theatre



- **Backstage** – actors' facilities, technical support, scenery preparation, storage.....
- **Stage** – setting – the world of the story; context, time, place, era, atmosphere
- **Forestage** – space of **interaction** between actor and audience (Vesica pisces)
- **Auditorium** – should be comfortable with good atmosphere, **sightlines**, **acoustics**
- **Front of house** – prepares audience for unique experience; audience facilities

A Tale of Three Houses Introduction
The performance space Acoustics



Reverberation time

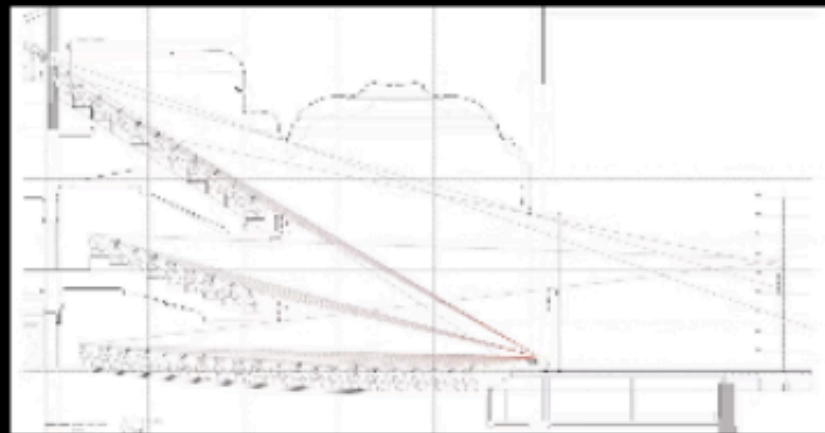
- Speech 1 – 1.2 secs
- Mozart 1.2 – 1.5 secs
- Wagner 1.5 – 1.7 secs
- Romantic 1.7 – 2.1 secs

Can be modified with reflective and absorptive finishes

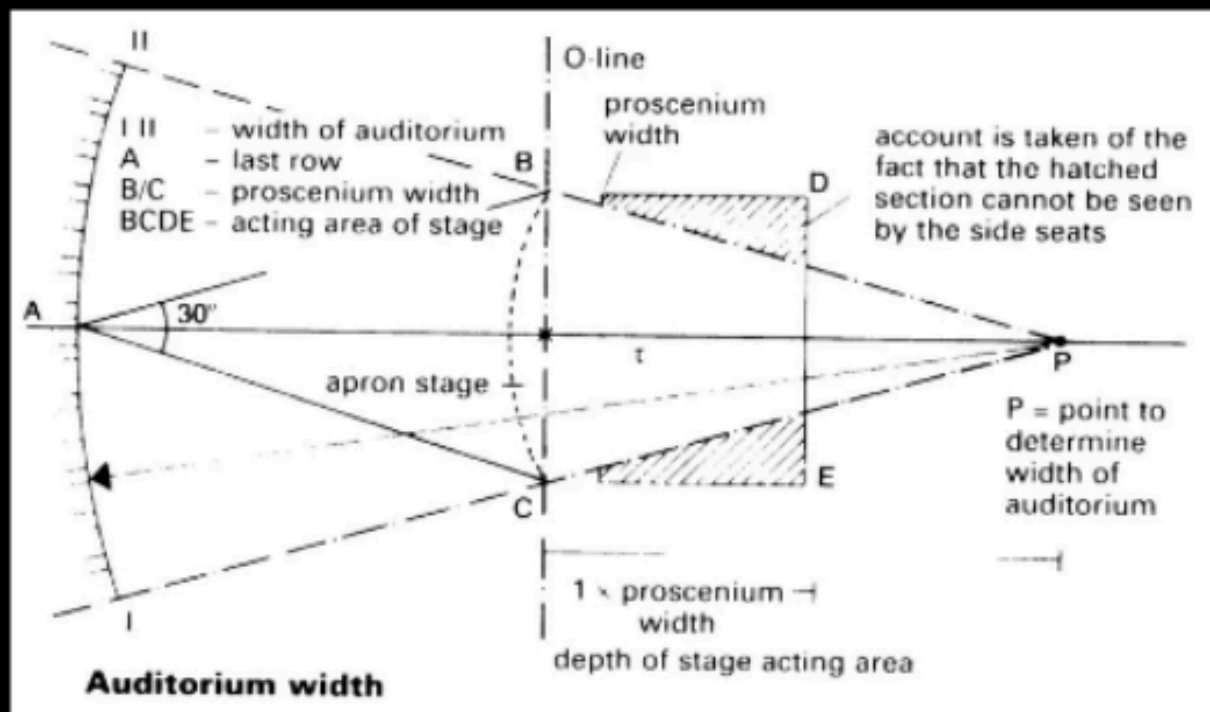


Musikverein, Vienna 1870

The performance space Sight lines



Section



Plan

A Tale of Three Houses Comparisons

Construction start, opening date, construction period

Palais Garnier



August **1861**
5 January **1875**
14 years

Bayreuth Festspielhaus



22 May **1872**
13 August **1876**
4 years

Sydney Opera House



2 March **1959**
20 October **1973**
14 years

A Tale of Three Houses

Social context

Paris 1850/60's

Period of great social change
& modernization

Emperor Napoleon III (1852 –
1870)

1853 Baron Hausmann starts
demolishing Paris

1870 Siege of Paris. Bismark
defeats France

1870 Formation of Third
Republic

1871 Paris Commune

1873 Napoleon III dies

Meyerbeer, Offenbach,
Verdi, Gounod

Flaubert

Courbet, Monet

Start of impressionism

Comparisons

Bayreuth 1860/70's

King Ludwig II of Bavaria
reigned 1864 – 86

1871 Bismark unifies
Germany and forms the
German Empire under
Wilhelm I

Parliament continues in
Reichstag

Brahms, Liszt

Art – realism - Menzel

Sydney 1950/60's

1955 – 75 Vietnam war

Sir Robert Menzies Prime
Minister 1949 – 66

Large increase in European
migrants

New awareness of local culture
End of the 'cultural cringe'

Malcolm Williamson, Peter
Sculthorpe, Larry Sitsky

Joan Sutherland

Robert Helpmann

Patrick White

Boyd, Nolan, Tucker, Olsen

A Tale of Three Houses Comparisons

Finance

Palais Garnier



Emperor Napoleon III
+ Government taxes

Final Cost

35m francs 28m marks

Bayreuth Festspielhaus



Ludwig II loan, Share certificates
Subscriptions

Final cost uncertain 2m thaler 428K marks

Sydney Opera House



State Lottery

A\$102m

A\$7m original estimate

A Tale of Three Houses Comparisons

Architects' age when they were commissioned

Palais Garnier



Charles Garnier 36
1825 – 1898
Born and died in Paris

Bayreuth Festspielhaus



Otto Brückwald, 31
1841 – 1904
Born and died in Leipzig

Sydney Opera House



Jørn Utzon 38
1918 – 2008
Born and died in Copenhagen

A Tale of Three Houses Comparisons
Architectural style

Palais Garnier



"Napoleon III style"
Beaux Arts / Neo-Baroque

Bayreuth Festspielhaus



Traditional regional style
"For the folk"

Sydney Opera House



Expressionist modernism
Additive architecture

A Tale of Three Houses

Comparisons

Site context

Palais Garnier



Bayreuth Festspielhaus



Sydney Opera House



Urban

Rue du Capuchine , 9 arr
Buildings demolished and streets
widened to create site

Parkland

'Green Hill' given to Wagner by
townsfolk

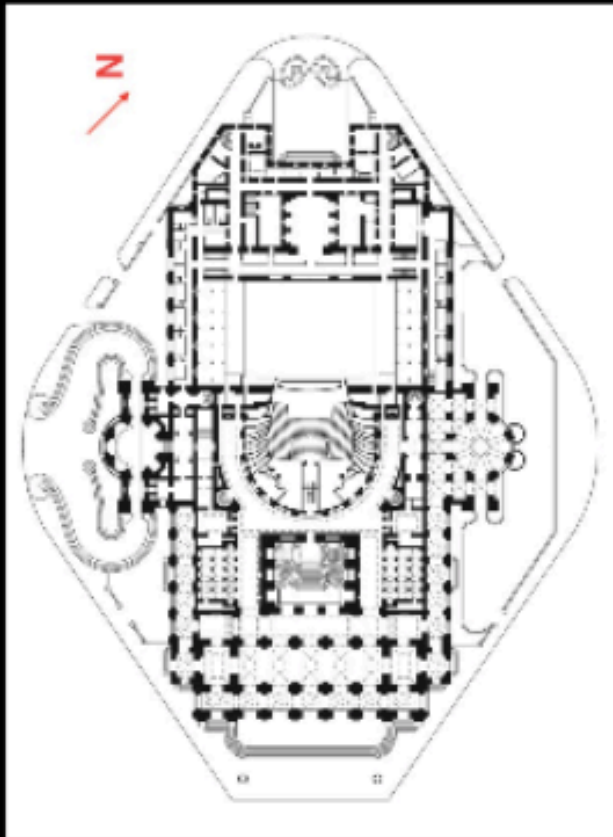
Harbourside

Bennelong Point. Tram shed
demolished

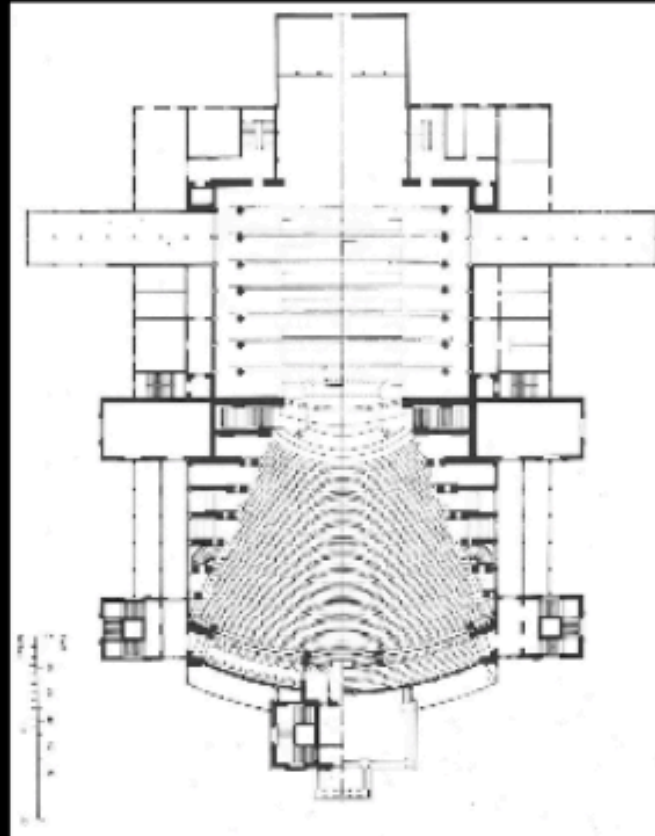
A Tale of Three Houses
Basic plan types

Comparisons

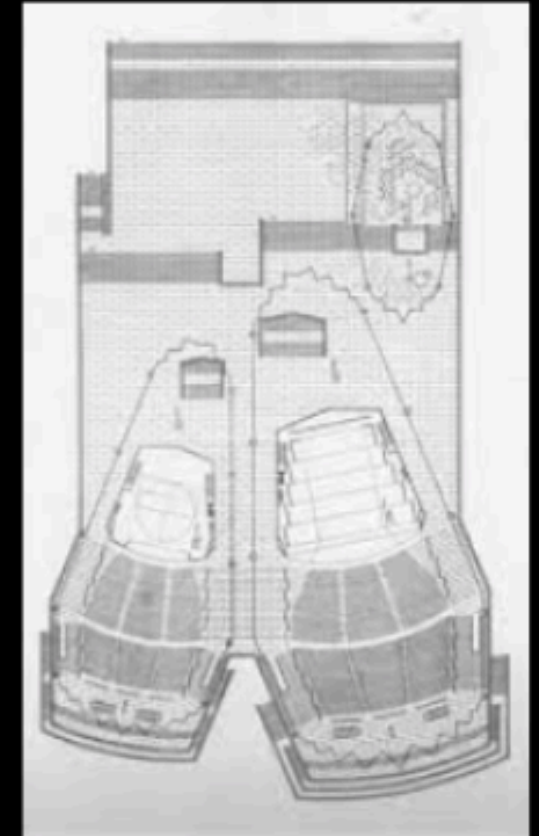
Palais Garnier



Bayreuth Festspielhaus



Sydney Opera House



Modified Italian horseshoe
Balconies, not private boxes

Greek amphitheatre

Greek Amphitheatre
(modified with balconies)
Parallel halls

A Tale of Three Houses Comparisons

Proscenium arches & seating

Paris



Picture frame
16m wide 10m high

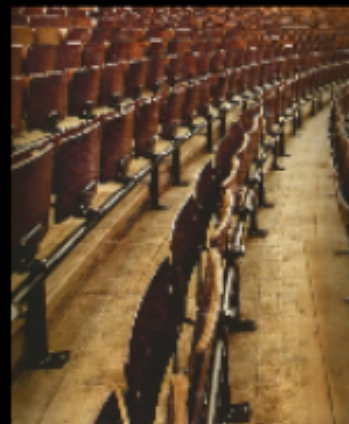


1979 seats
comfortable
200 restricted or no view of stage

Bayreuth



Double proscenium
13m wide 11.8m high



1925 seats
torture
near - perfect sight lines

Sydney



Adjustable opening
11 - 14 m wide 7m high



1507 seats
comfortable
98 restricted view

A Tale of Three Houses Comparisons
Construction methods

Paris



Iron, stone cladding

Bayreuth



Timber and brick

Sydney



Reinforced/precast concrete



Paris



Camille Pissarro Avenue de l'Opera 1898

Note: no trees to obstruct the view

The clients



Emperor Napoleon III
b 1808 d 1873



Empress Eugenie
b 1826 d 1920

Great client?



Baron Haussmann
b 1809 d 1891
"The demolisher"
Proposed 2 stage competition



The New Opera House site



Alternative sites



Highly populated surroundings

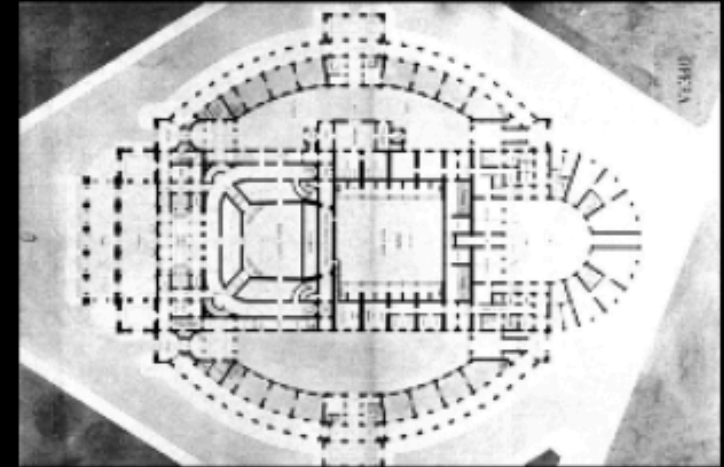


Demolition of existing neighbourhoods

Architects favoured before the competition

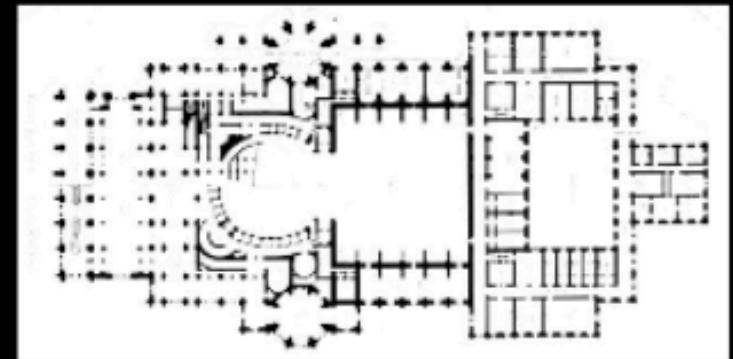


Charles Rohault-de-Fleury official Govt Architect
Helped prepare the brief.



Eugene Viollet-le-Duc Submitted for first stage but not invited to second stage (Empress's favourite)

Competition Stage 1 **only 1 month**
7 designs selected for stage 2
Stage 2 1 month. 170 entries
Jury decision 29 May 1861



The competition winner Charles Garnier

Great architect?



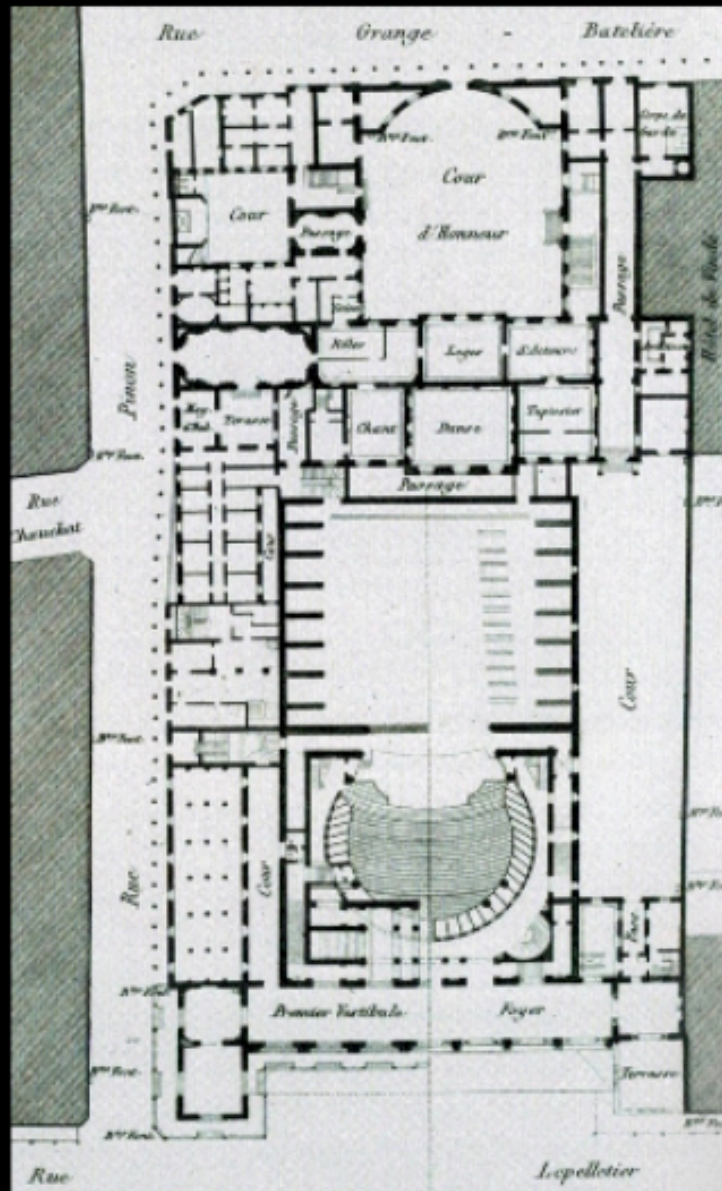
Competition drawing of front elevation



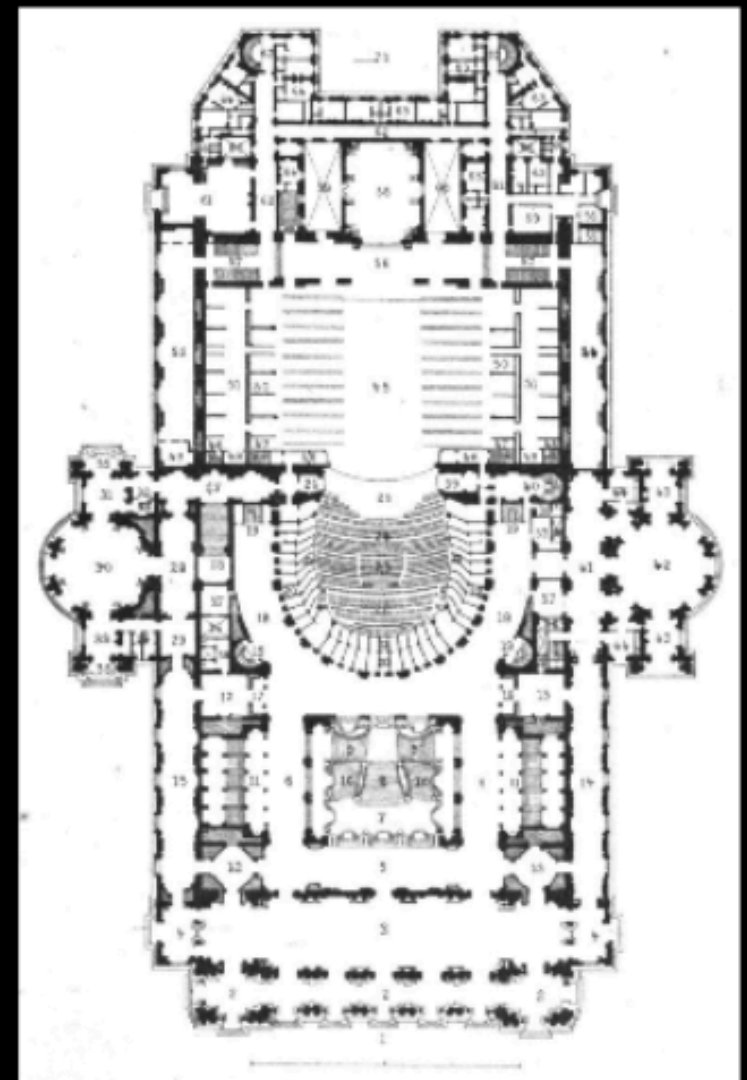
Garnier with his staff (students from Ecole de Beaux-Arts) produced 15,600 drawings



Main floor plan comparison with previous Paris Opera House



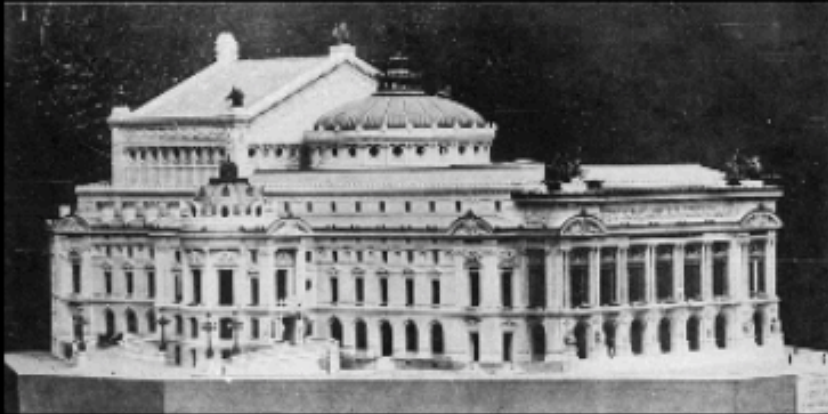
Salle le Peletier Burnt down 1873



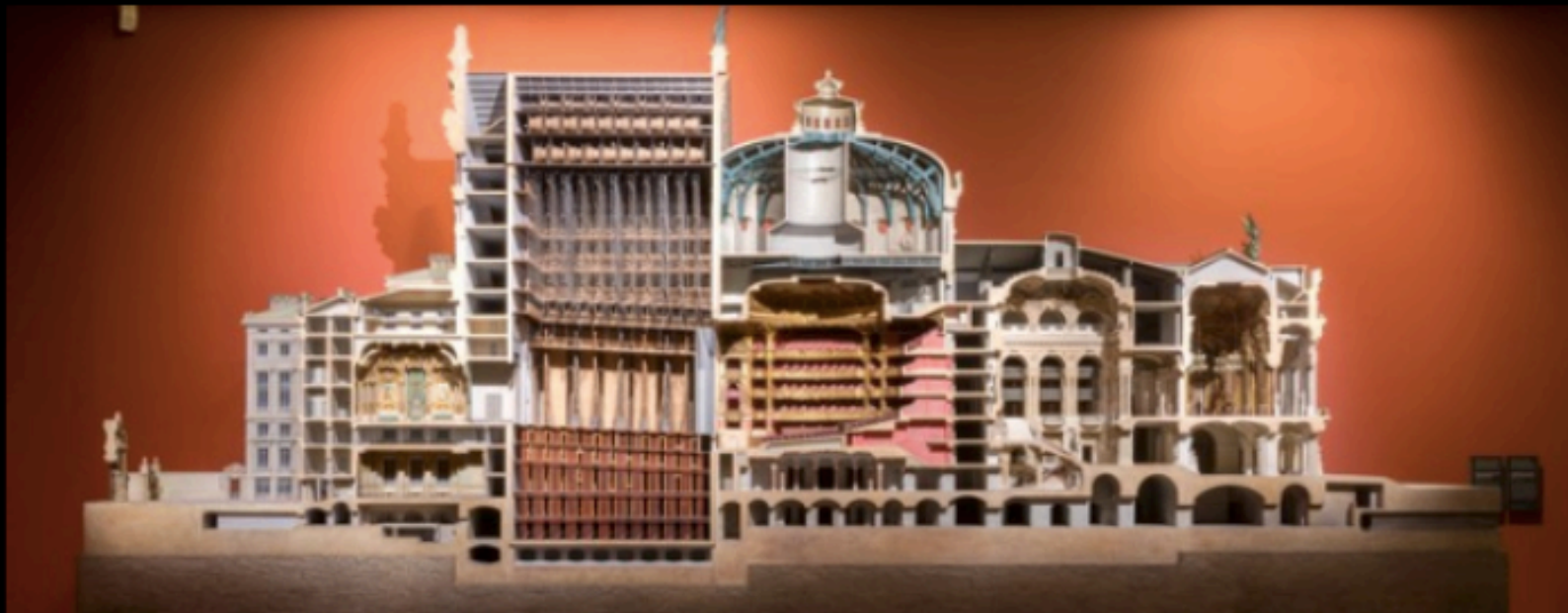
Académie (Imperiale) Nationale de Musique



Models



1863



Sectional model displayed at Gare d'Orsay 1984

Construction

Great builder?



Napoleon III visiting the site



Iron structure



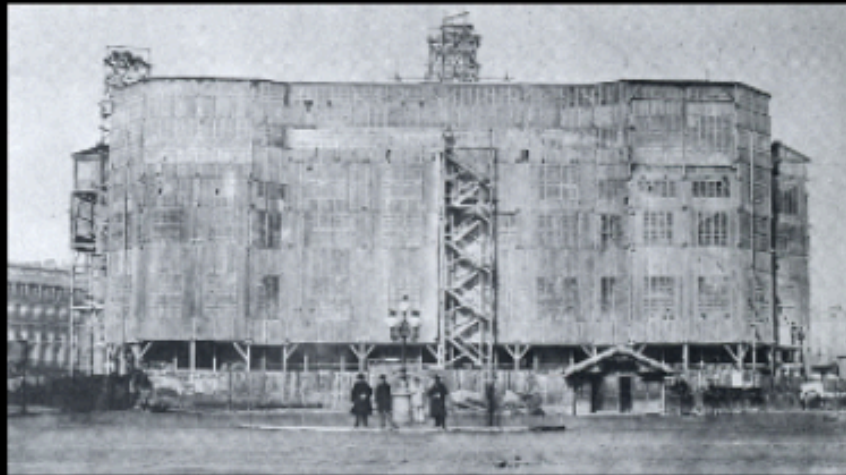
Garnier with construction crew



Underground lake



Progress



1863



1867

Time line

- Jan 1858 attempted assassination of Napoleon III at Salle le Peletier
- Sep 1860 site announced
- May 1861 architect appointed
- Jan 1862 foundations started. Progress delayed due to underground lake
- Apr 1867 Paris Exposition
- Sep 1867 front unveiled
- mid 1869 building envelope complete
- Sep 1870 work stops due to Siege.
Interior used as a warehouse/barracks
- 14 Sept 1870 Emperor deposed and the Third republic established
- March – May 71 Paris Commune
- Sep 71 Work restarts
- 29 Oct 1873 Salle Peletier burns down
- Oct 74 Work complete
- Jan 75 opening
- 1881 Building fully electrified



Inauguration 5 January 1875

Garnier not invited by new Republic



The grand staircase by Antoine Detaille 1875



8 January 1875 opening concert
Assorted music incl *La Juive* (Halevy)



Grand staircase

'I want to inspire an excited audience which observes and knows itself observed'.
Garnier





Circulation/reception salons



Grand foyer
Dance



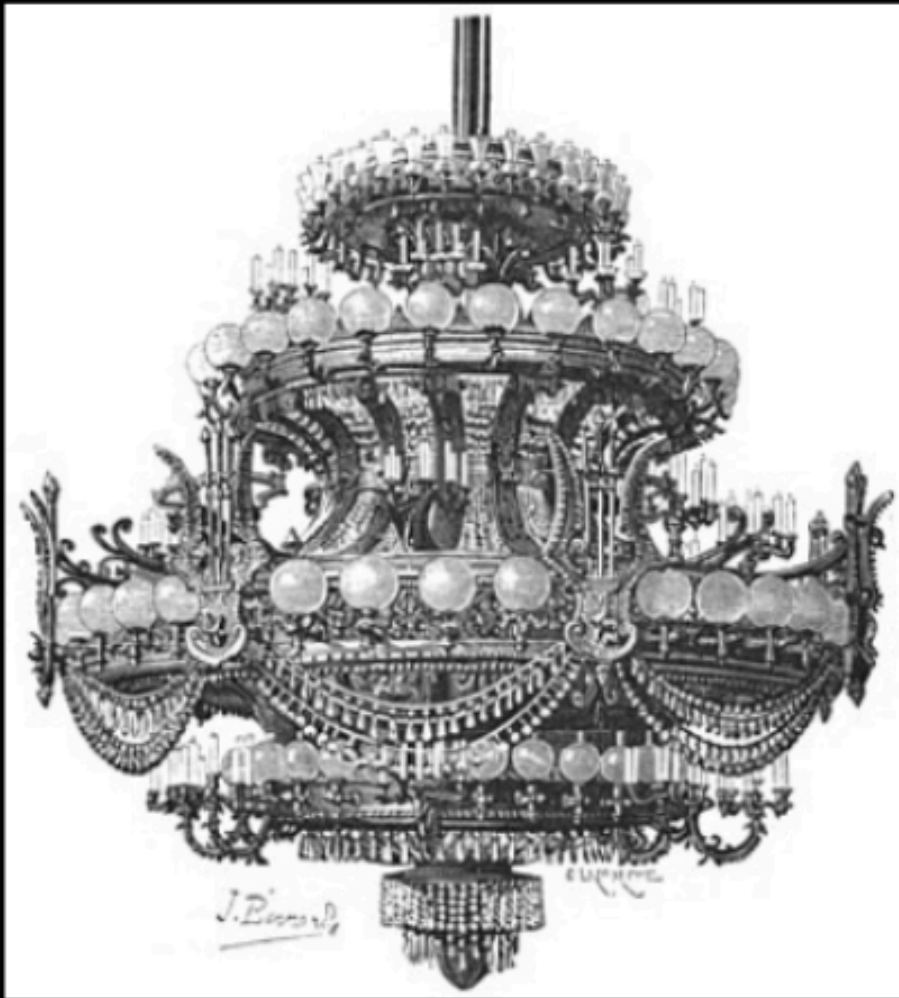
Foyer de la



The Auditorium



Ceiling



Garnier's chandelier



Marc Chagall ceiling 1964



Original ceiling by Jules-Eugene Lenepveu



Myth

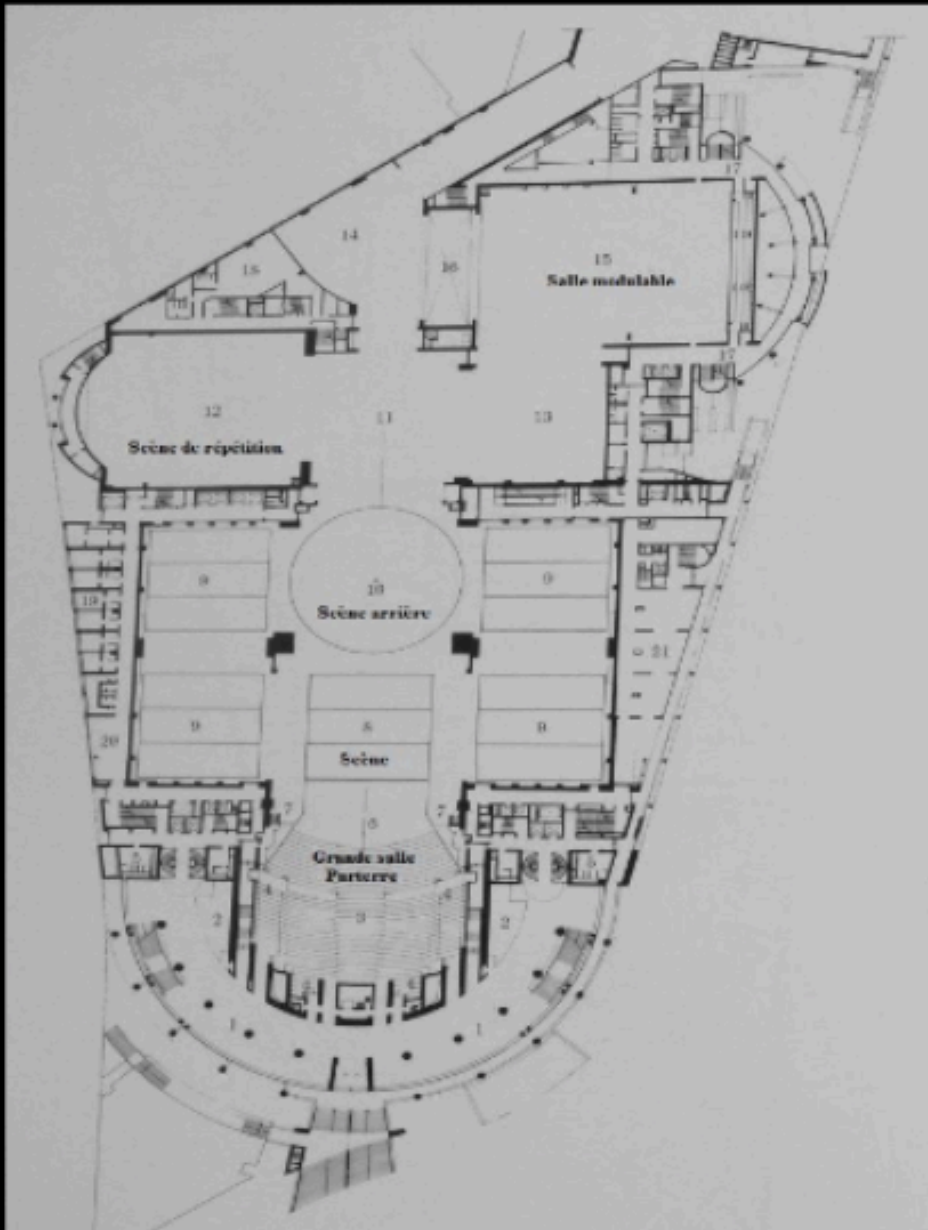


Decorations

'A harmonious integration of architecture, sculpture and painting'
Garnier



The move to Bastille 1989



Opéra Bastille Carlos Ott
1982