

HISTORY OF ARCHITECTURE I
ARC 2313 - SPRING 2022

LECTURE-30
13 APRIL 2022



Reminder: Term #3

Friday, 22 April 2022

(Lectures 22-31)

Reminder: Test #3

Wednesday, 27 April 2022

(Lectures 22-31)

THE GOTHIC CATHEDRALS

(continued)

1920s



1930s



1950s



Carolingian

Romanesque

Gothic

It is sometimes useful to think of design as a series of spatial and formal refinements as well as improvements in technology and building techniques

GOING HIGHER IN GOTHIC CATHEDRALS

The Content *(the idea behind the architecture)*

Achieving the ***heavenly light*** also known ***Lux Nova***

The Form *(how the idea is manifest)*

Technology such as ***innovative vaulting*** to achieve lighter construction, which leads to ***increased fenestration***, this fenestration is expressed as ***stained glass***, and additional support in the form of ***flying buttresses***

Later stages of the ***Gothic*** aim higher and higher and get thinner and thinner in detail and masonry

The working metaphor is that these cathedrals are evoking heavenly light

Technological and design innovations make this possible

Master Builders of Cathedrals transfer their building knowledge to other countries

Gothic began as the ***National Style of France*** —
now becomes an ***International Style***



Completed 1260

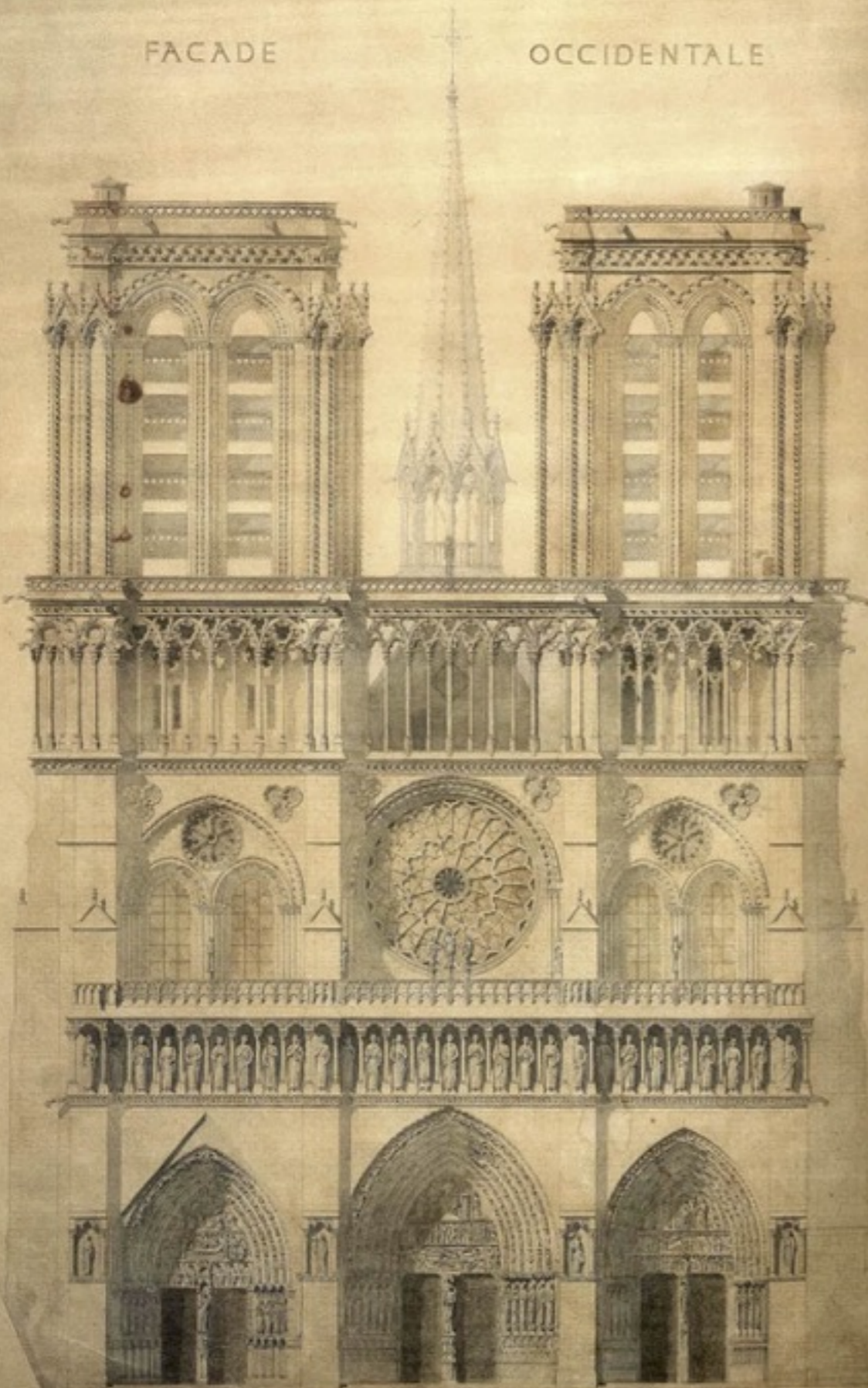
*A national
preservation
movement* arose
in the 1840s due
to deep interest
in Notre Dame
sparked by Hugo's
book

NOTRE DAME OF PARIS

NOTRE · DAME

FACADE

OCCIDENTALE



Notre Dame of Paris

Viollet le Duc's
restoration drawing
(1840s)

We will discuss
Viollet le Duc
in great detail
next semester!



Chartres Cathedral *near Paris*

Completed **1220**

The westworks

mismatched towers due to
different time periods

CHARTRES CATHEDRAL



Sainte Chapelle

(1248)

Sainte Chapelle is on the same island in the middle of Paris as is *Notre Dame*

The two churches are only a few hundred yards apart

SAINTE CHAPELLE IN PARIS



Louis IX
Saint Louis

Sainte Chapelle
(**1248**) was built
by Louis IX to
house his special
collection of
relics from the
Holy Land



Sainte Chapelle in Paris (1248)

exhibits the ~ ***rayonnant*** ~ style



What is *rayonnant*?

A late Gothic style (sub-style) which has several definitions or meanings such as:

literally it means :: *radiating*

it's much more *two-dimensional* and *vertical*
creating more lightness and openness

thinner radiating *tracery bars* of the
wheel window help to achieve this effect



Sainte Chapelle
rayonnant

verticality - lightness - subdivided bar tracery

NOTRE DAME WHEEL WINDOW



RAYONNANT

SAINTE CHAPELLE WHEEL WINDOW

FLAMBOYANT



Gothic becomes an *international style*



Cologne Cathedral

Begun 1248
work stopped 1473

Began again 1840s
completed 1880

COLOGNE CATHEDRAL



COLOGNE CATHEDRAL



Cologne along the Rhine



Cologne interior - *rayonnant*

Lincoln Cathedral (England) 1185-1311



LINCOLN CATHEDRAL

"I have always held... that the cathedral of Lincoln is out and out the most precious piece of architecture in the British Isles and roughly speaking worth any two other cathedrals we have."

John Ruskin

Lincoln
originally has
spires. Tallest
building in the
world 1311-1548





Flying buttresses at Lincoln



Ribbed vaulting in the nave



Lincoln Cathedral

Tierceron vaulting
inventive Y-shaped

helped to distribute
structural forces
more broadly



Lincoln Cathedral carving detail

SIENA CATHEDRAL (ITALY)

(1196-1348)



note lack of westworks towers —
it has a *campanile* instead

vocabulary

rayonnant

flamboyant

triforium

tribune

tracery

flyers

flying buttresses

ribbed groin vault

crockets

gargoyle

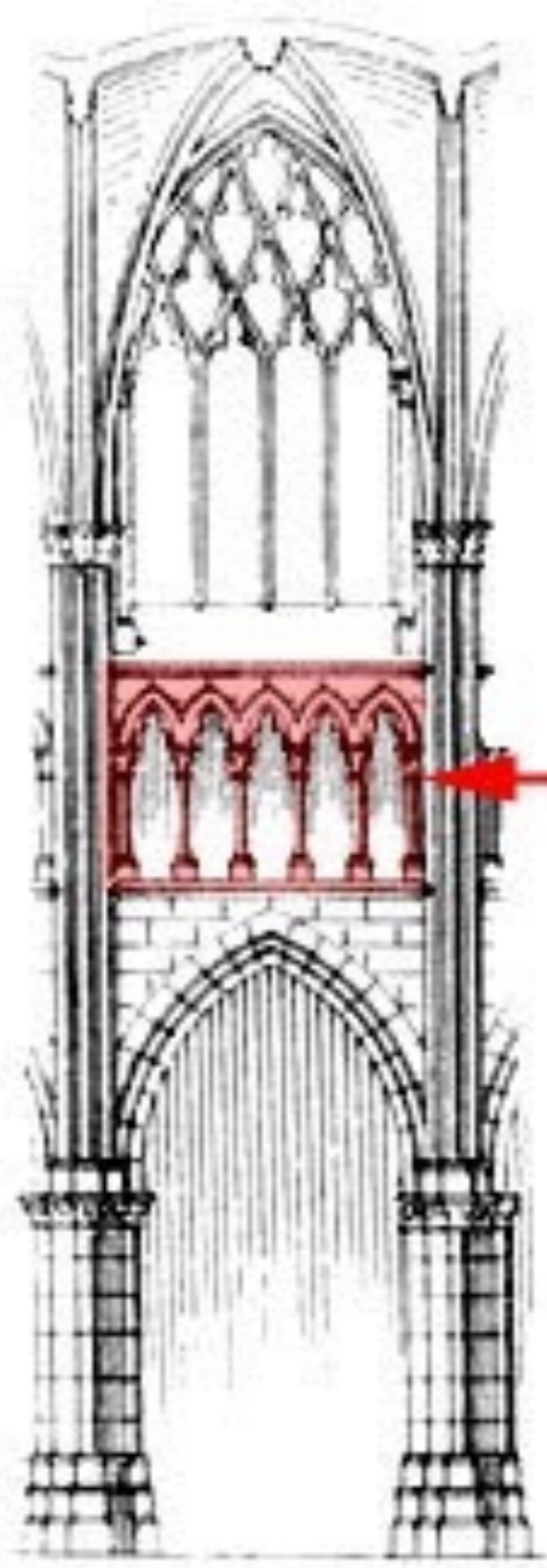
chimera



crockets



crockets



triforium



*triforium
level*



Exemplary for its
tracery and delicate
carving

SAINT-URBAIN DE TROYES

tracery





gargoyles



gargoyle



gargoyle





chimeras



chimera

chimera





chimera

MASTER BUILDERS

Who were the great geniuses who built the Gothic Cathedrals?

~ *Architect*

~ *Master Mason*

~ *Structural Engineer*

~ *Building Contractor*

Villard de Honnecourt
1220



Honnecourt's sketchbooks





Master Builder William of Sens

Master Builders

were seen as *heroes* — bringing order and substance to the chaotic universe of the middle ages — Christianity was a response to that reality and cathedrals were the manifestation of that profound idea.

end