History of Architecture

Gothic Architecture

Sara Khasib

The Middle Ages

- The middle ages were the ages between the ancient civilization and the Renaissance

- Divided into 3 period:

    - **Early middle ages (450-1000)**

    - **High middle ages (1000-1150)**

    - **Late middle ages (1150-1500)**

Early Middle Ages	High Middle Ages	Late Middle Ages
6th-10th century	11th-13th century	14th-15th century

Gothic style

- Gothic style has flourished during the **high and late medieval period** - 12th to 16th century (1150 - 1450)

- Started in **France** about 1140, then spread to the rest of Europe

- The term “Gothic Architecture” describe the culture that was considered barbaric or even related to vandals

Geography & Chronology

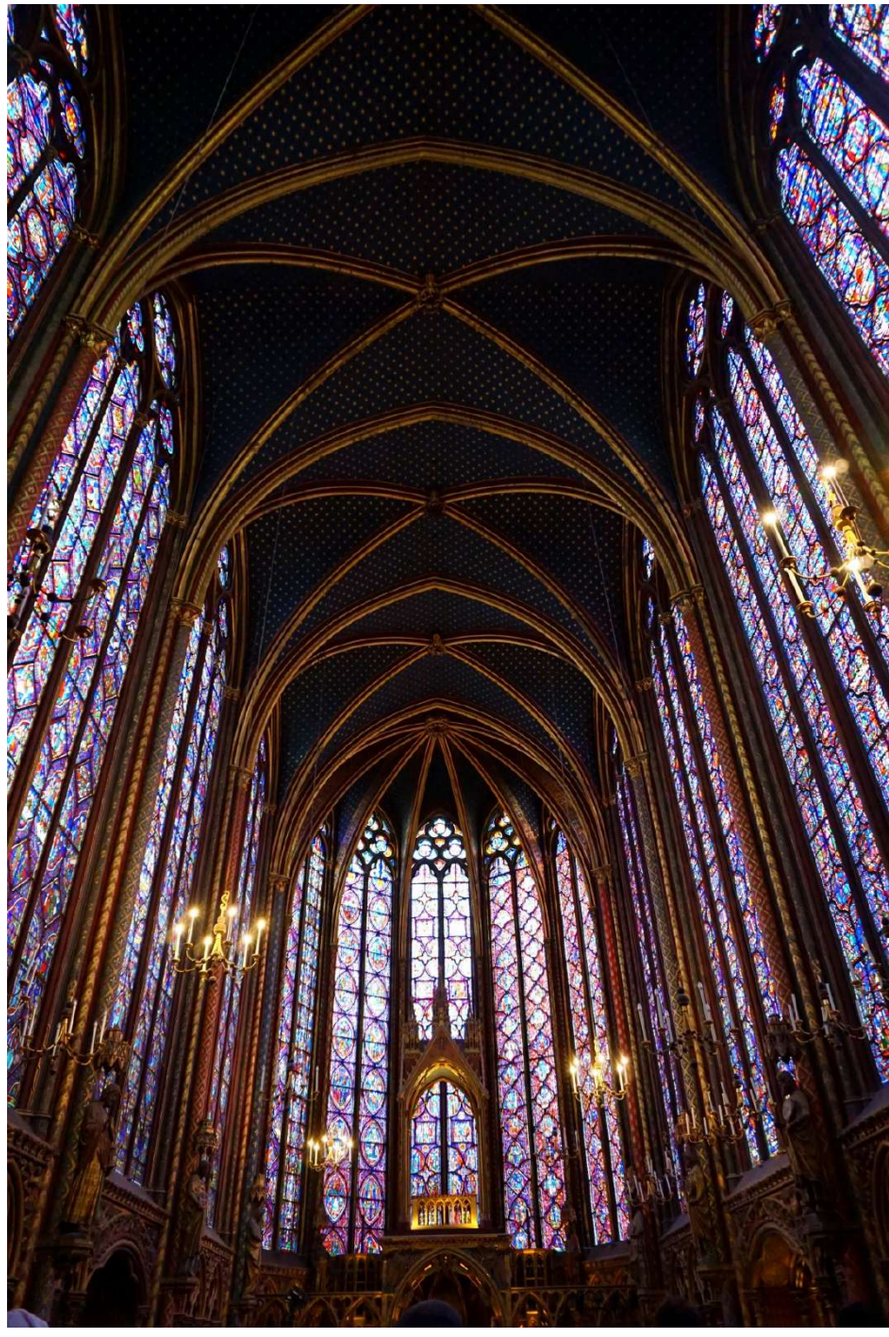
- Each area in Europe developed according to its circumstances and hence there are two timelines for gothic architecture

1. According to French Gothic:

- Early Gothic (1140-1194)
- High Gothic (1194-1300)
- Late Gothic (1300-1500)

2. According to English Gothic:

- Early English Gothic Style (1200-1300)
- Decorated Gothic Style (1300-1400)
- Perpendicular Gothic Style (1400-1500)



Geography and Chronology

Politics & Social

- Growing awareness of the **nation - states** by a common culture and language

- Emergence of strong central monarchies in England and France

- Europe transformed during the late Middle Ages by two forces that reinforced each other:

  - **The emergence of cities**
  - **The growth of trade**

Louis VI, France

Politics & Social

- Major cities such as Florence, Venice, Paris, and London had population about 100,000

- 95% of Europe was rural but the 5% which were cities dominated the life and culture of Europe

- The word **Bourgeois** was created to allude to those who lived in the city and usually someone who operated a business

Religious Scholasticism

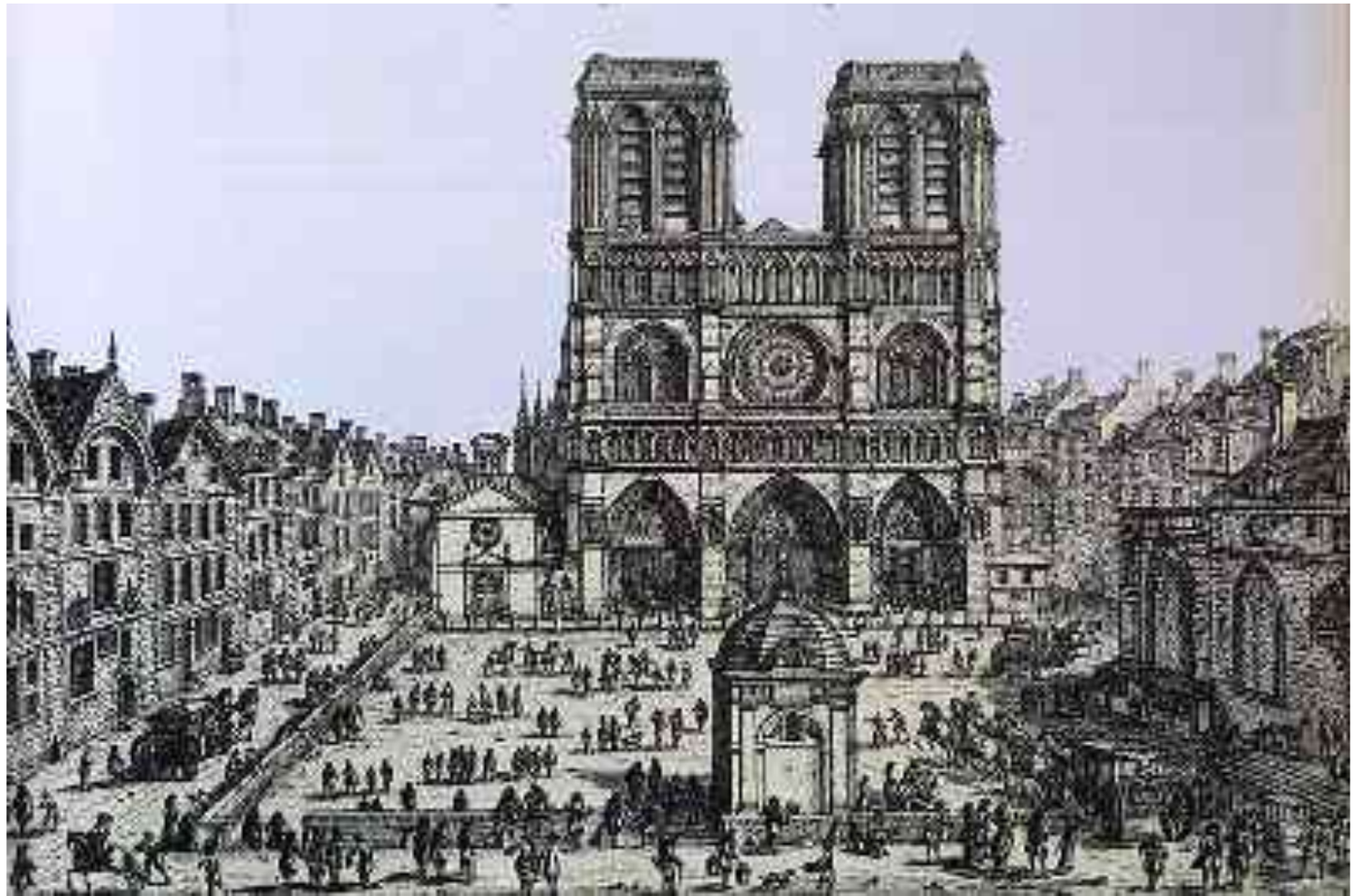
- The **establishment of universities** which were branches of the church and their faculty members were clerics

Architecture

- The gothic architecture was largely an **urban architecture**

- Unlike the isolated monasteries and pilgrimage churches of the Romanesque, the gothic architecture were **urban cathedral**

- The cathedral's dedication was mostly to **Virgin Mary** (Notre - Dame) rather than to local saints

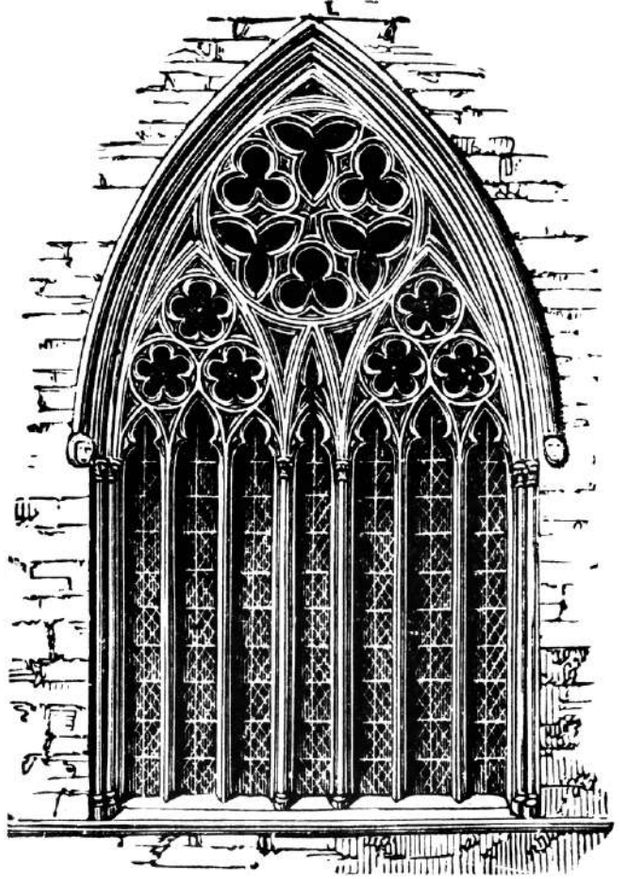


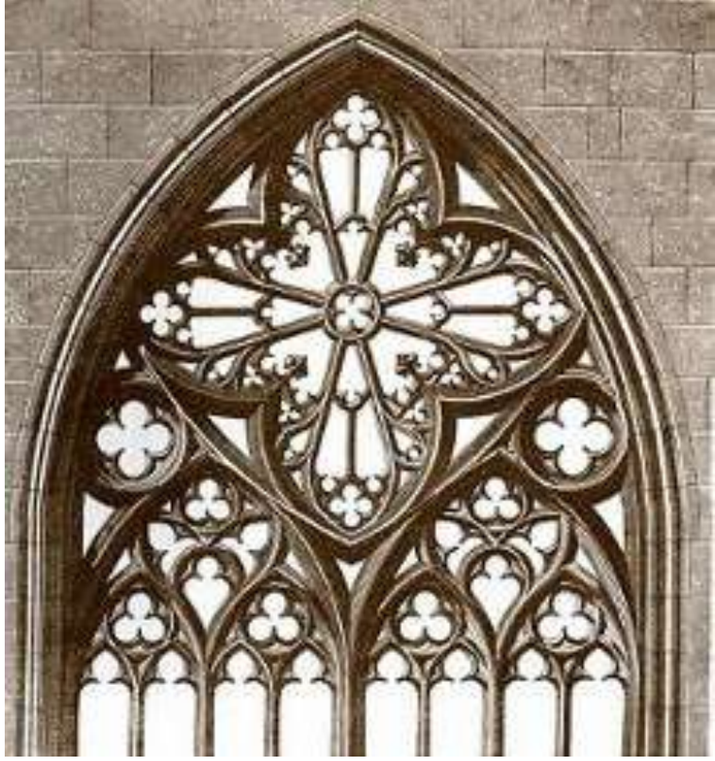
Architectural Elements

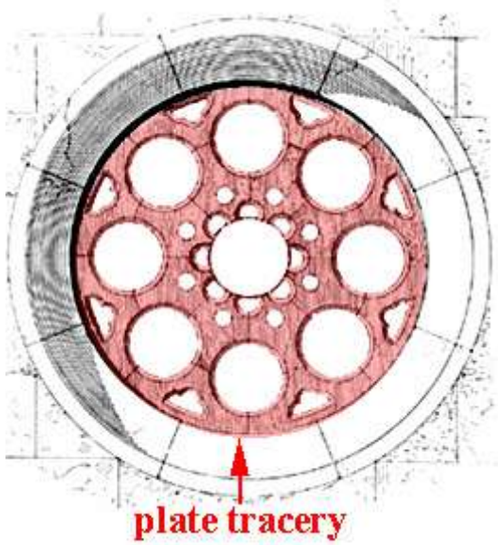
Tracery

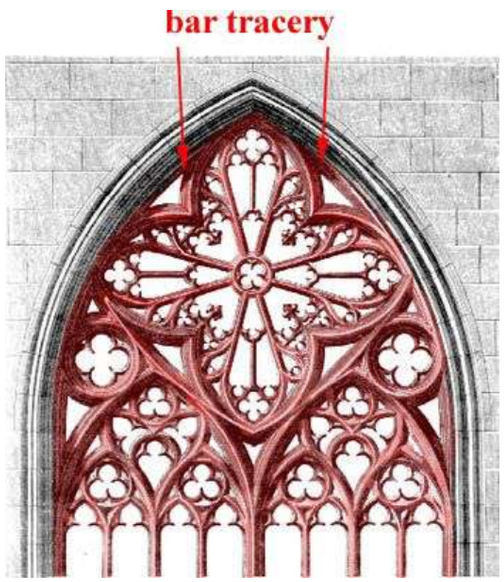
- Bars, or ribs, used decoratively in windows or other openings

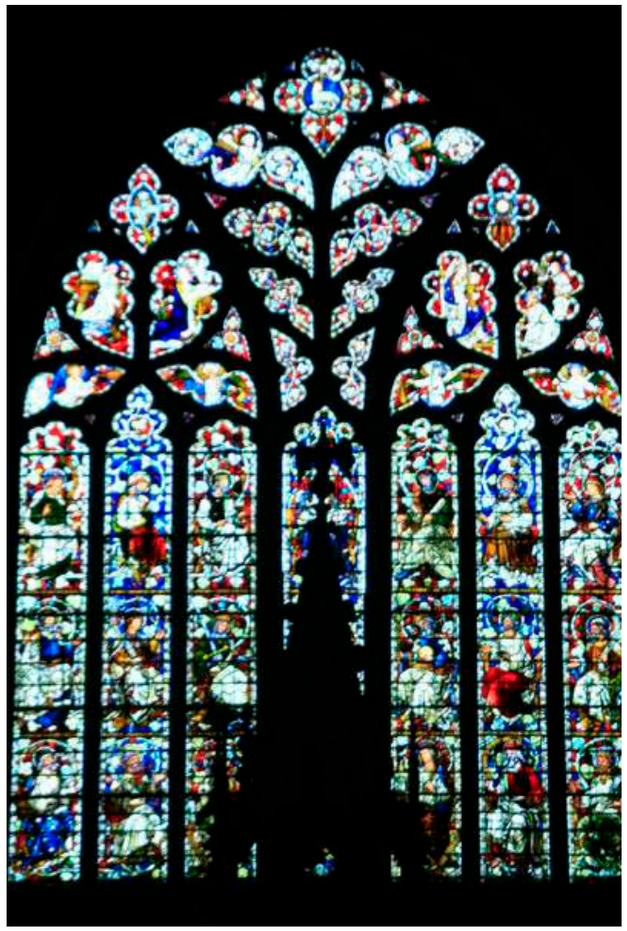
- This type of stonework decoration became more complex during the High Gothic









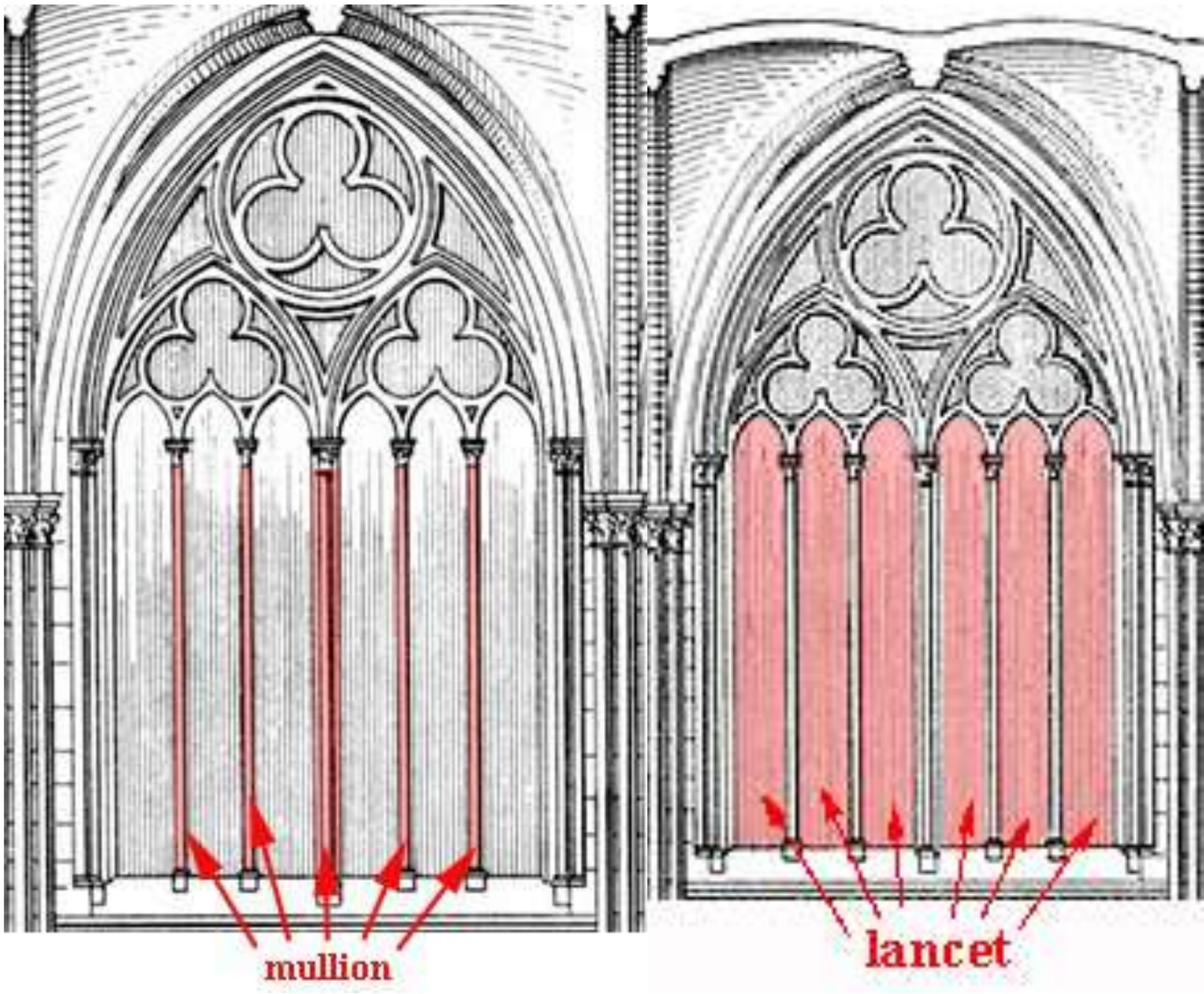


Lancet window

- A narrow window with sharp pointed arch

Mullion

- The vertical dividing bar of a rose or lancet window

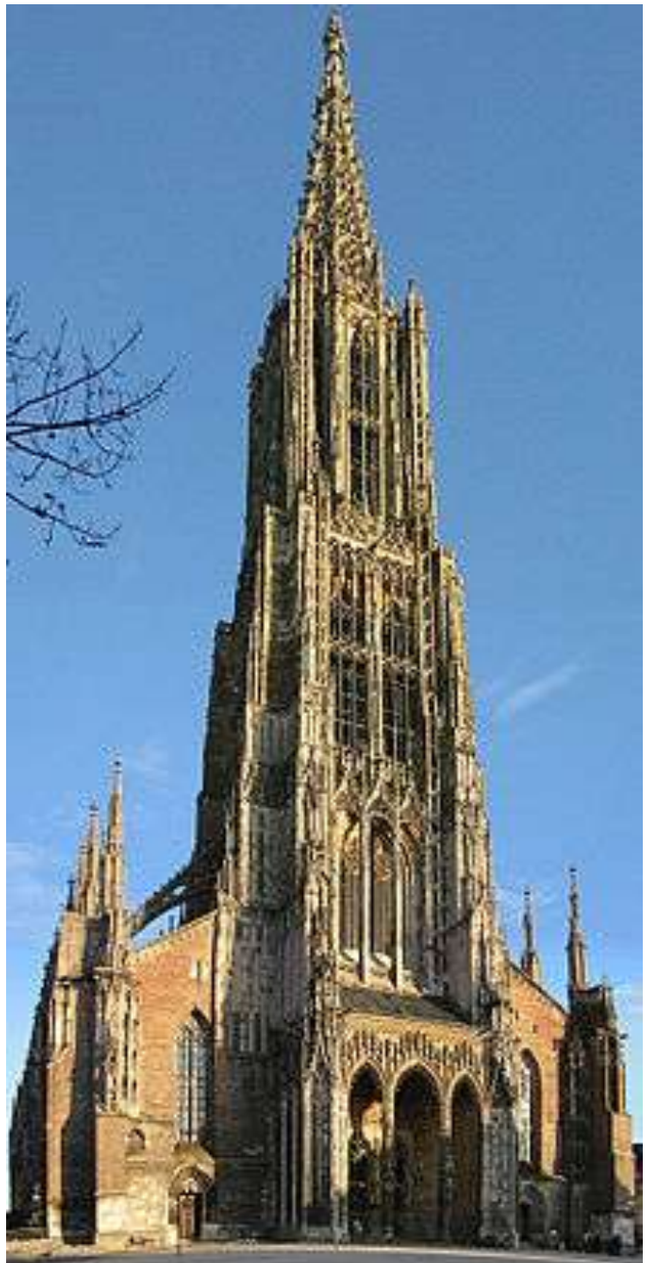


Gargoyles

- A water sprout terminating in an oddly carved figure of a human animal, and projecting from the gutter of a cathedral

Spire

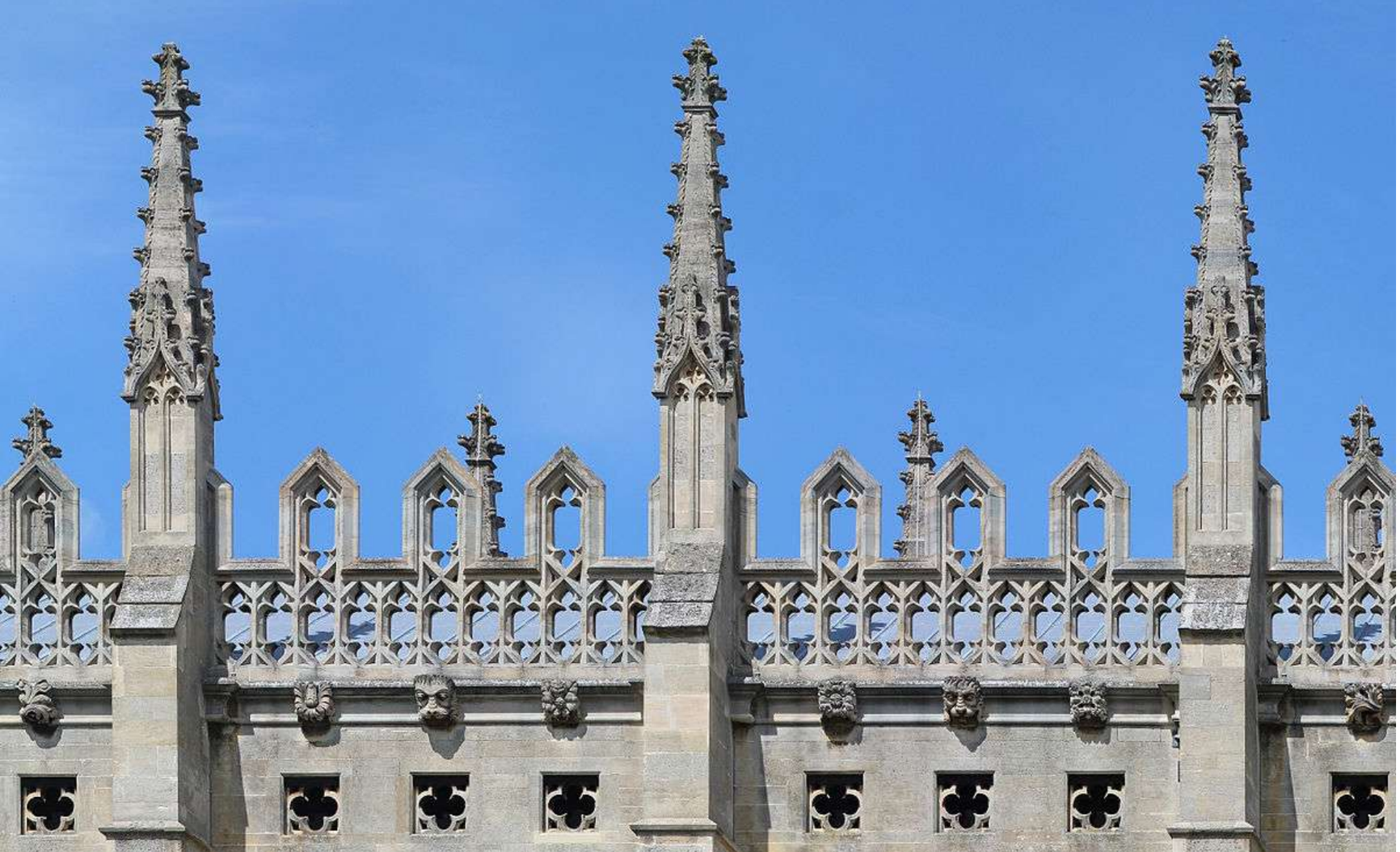
- A sharply pointed pyramidal or conical structure surmounting a tower

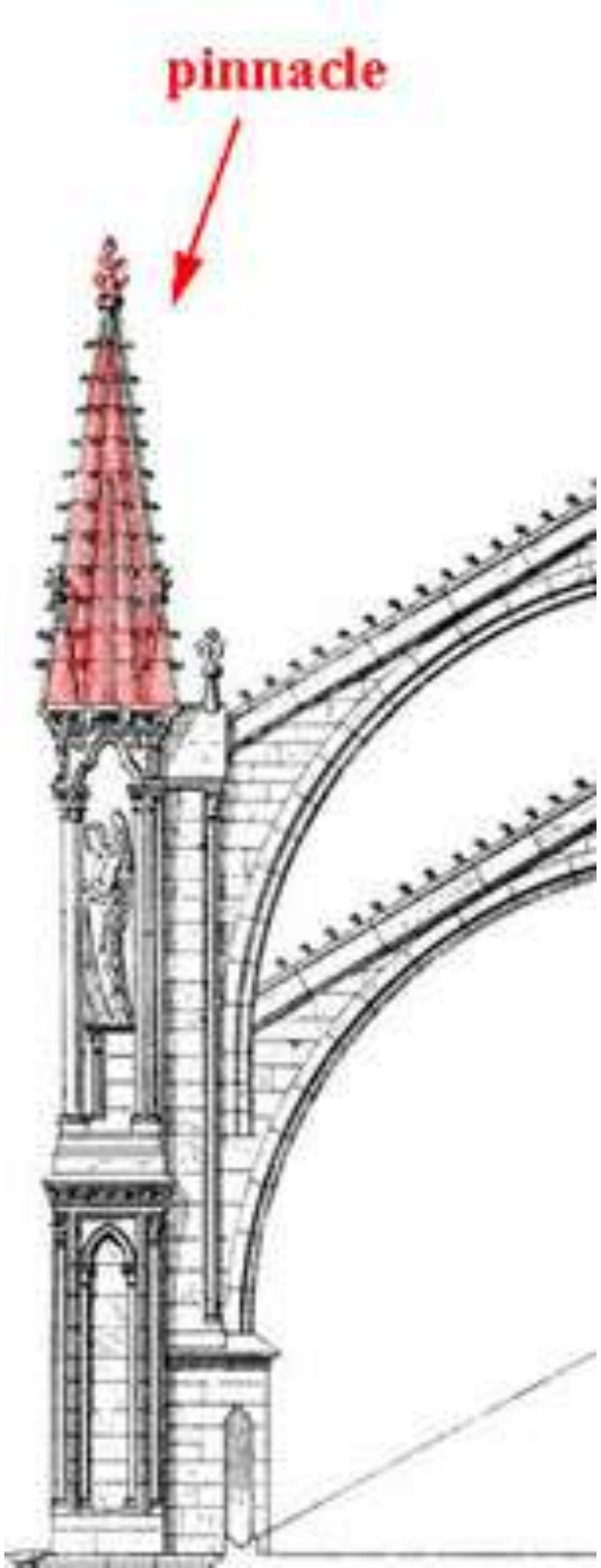


Pinnacle

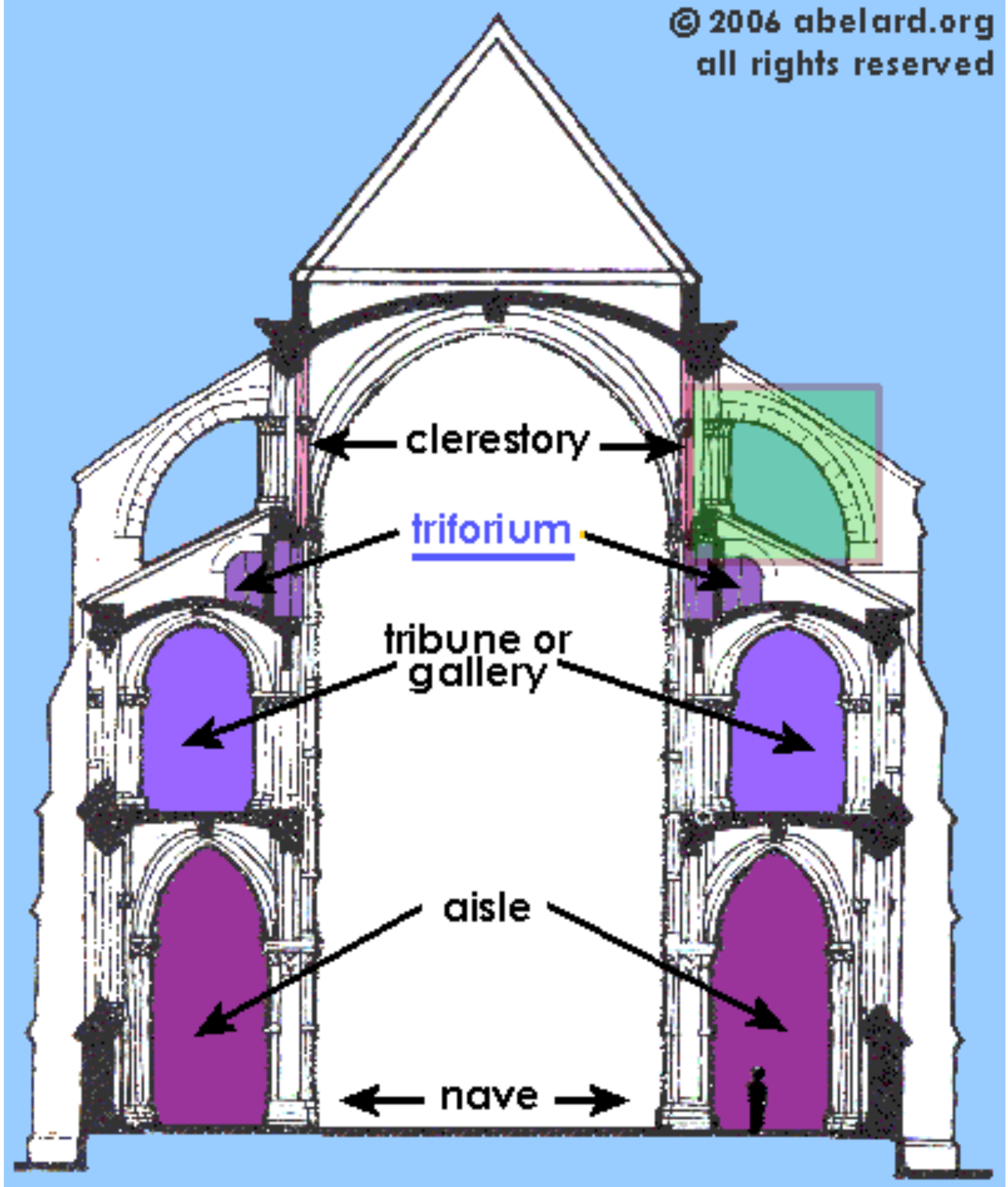
- Small narrow pointed tower initially capping buttresses and openwork gables or portals and galleries

- The pinnacle looks like a small spire





Interior levels:



Architectural Character

- Revolution in building techniques, that was achieved through the use of **pointed arches** and **ribbed vaults**

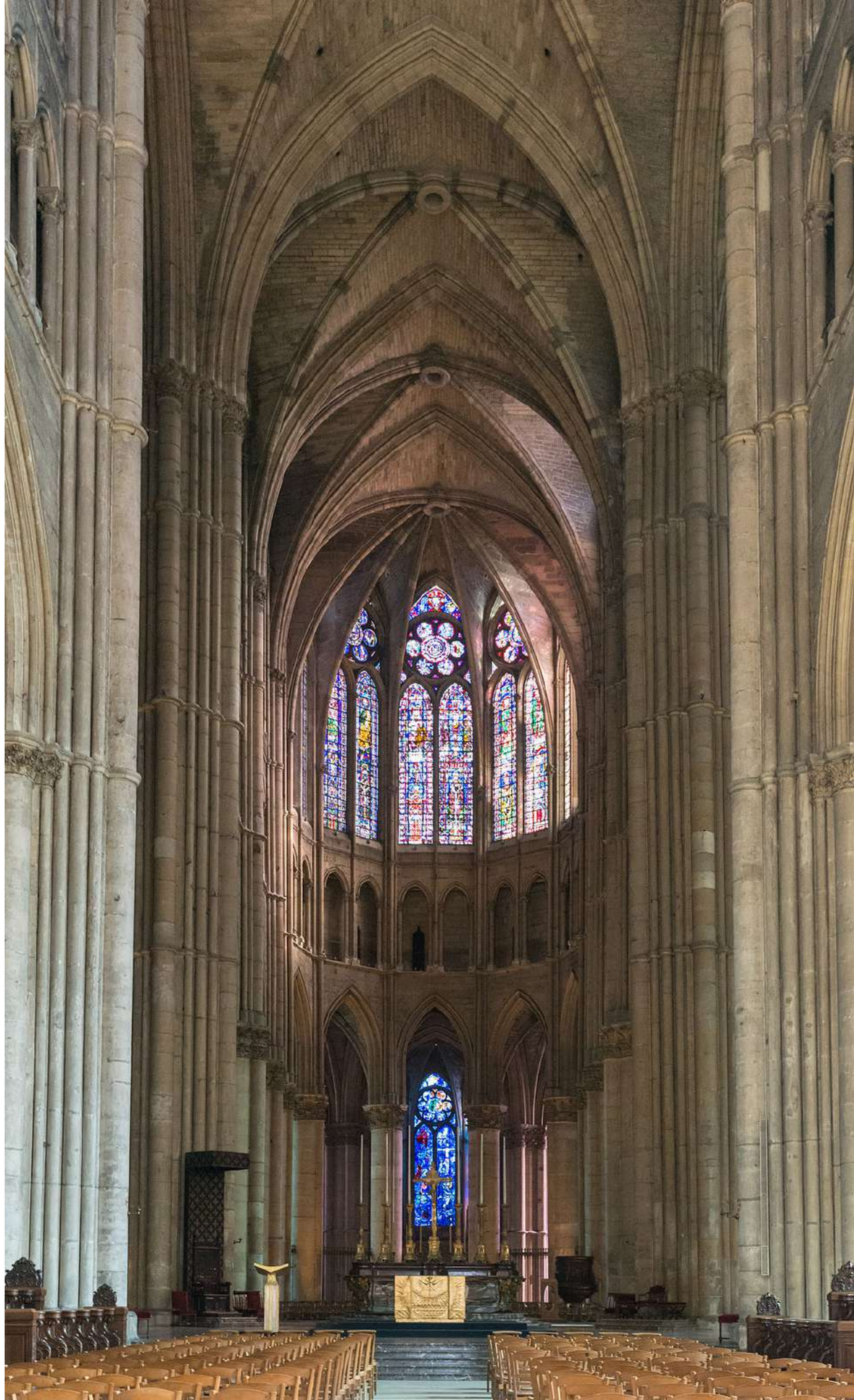
- This allowed:

  - higher ceilings

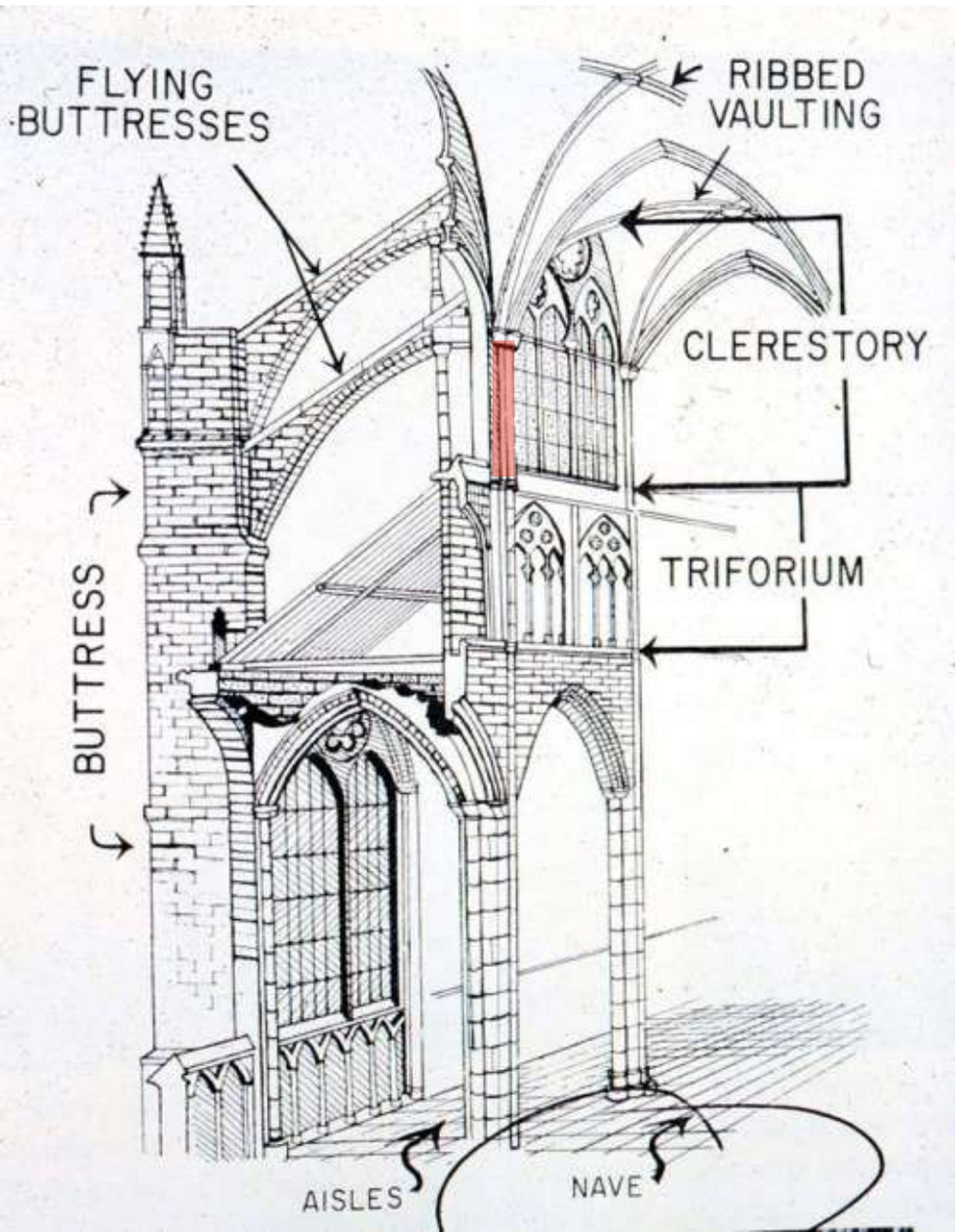
  - thinner walls

  - slim columns

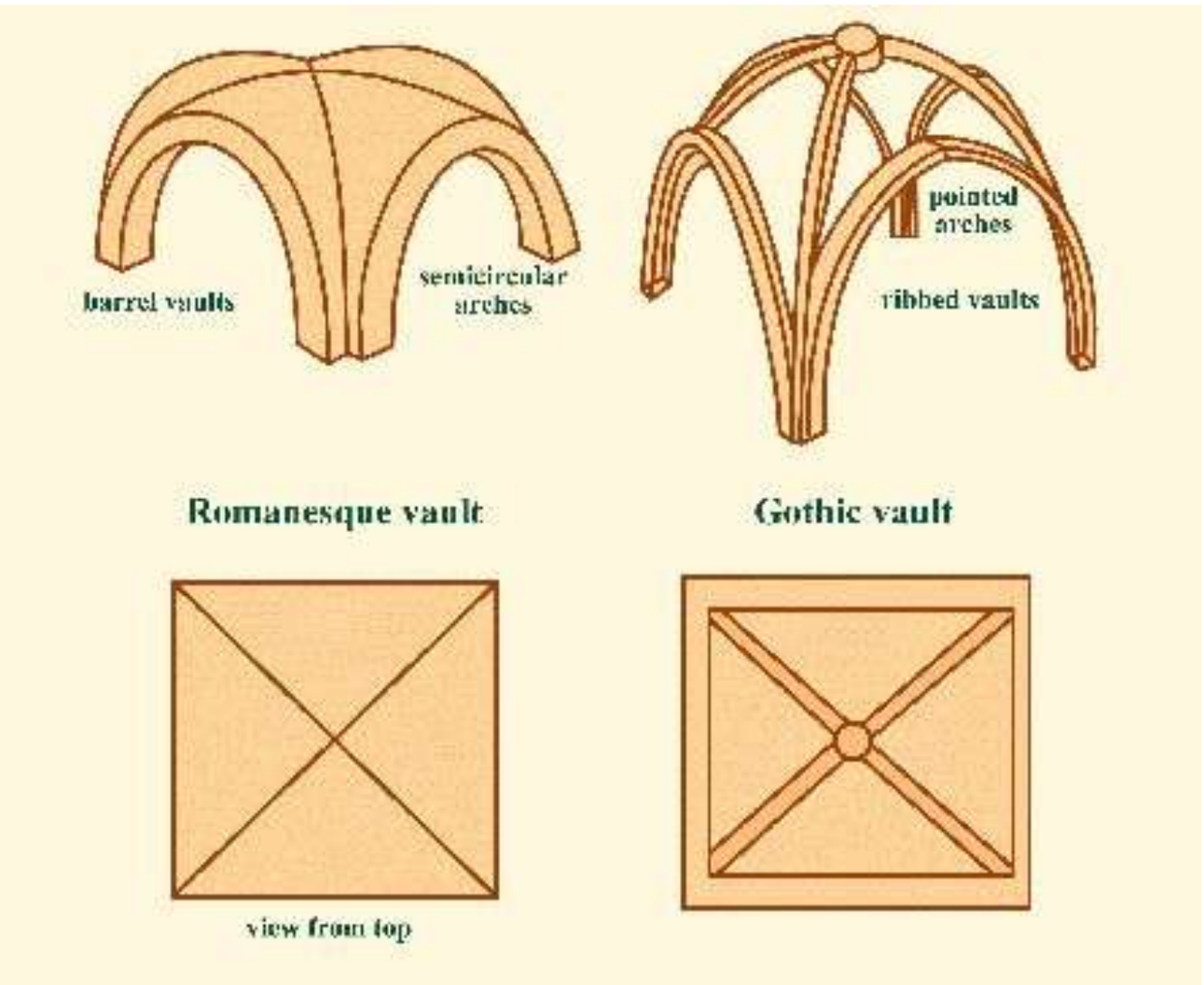
  - incredible openness

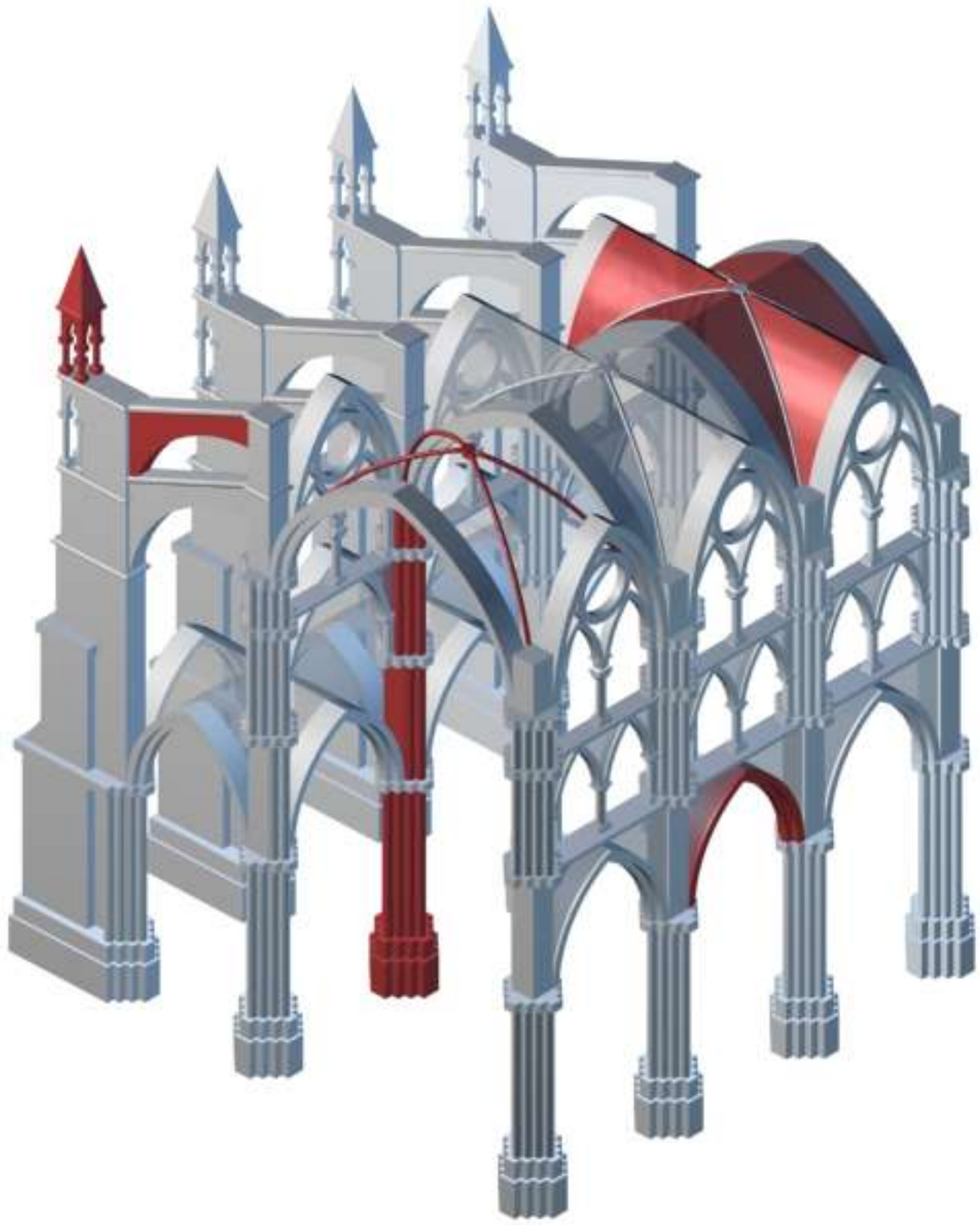


- Since the outward thrusts of the vaults were concentrated in the small areas at the springing of the ribs, pressure could be counteracted by narrow buttresses and by external arches, called **flying buttresses**



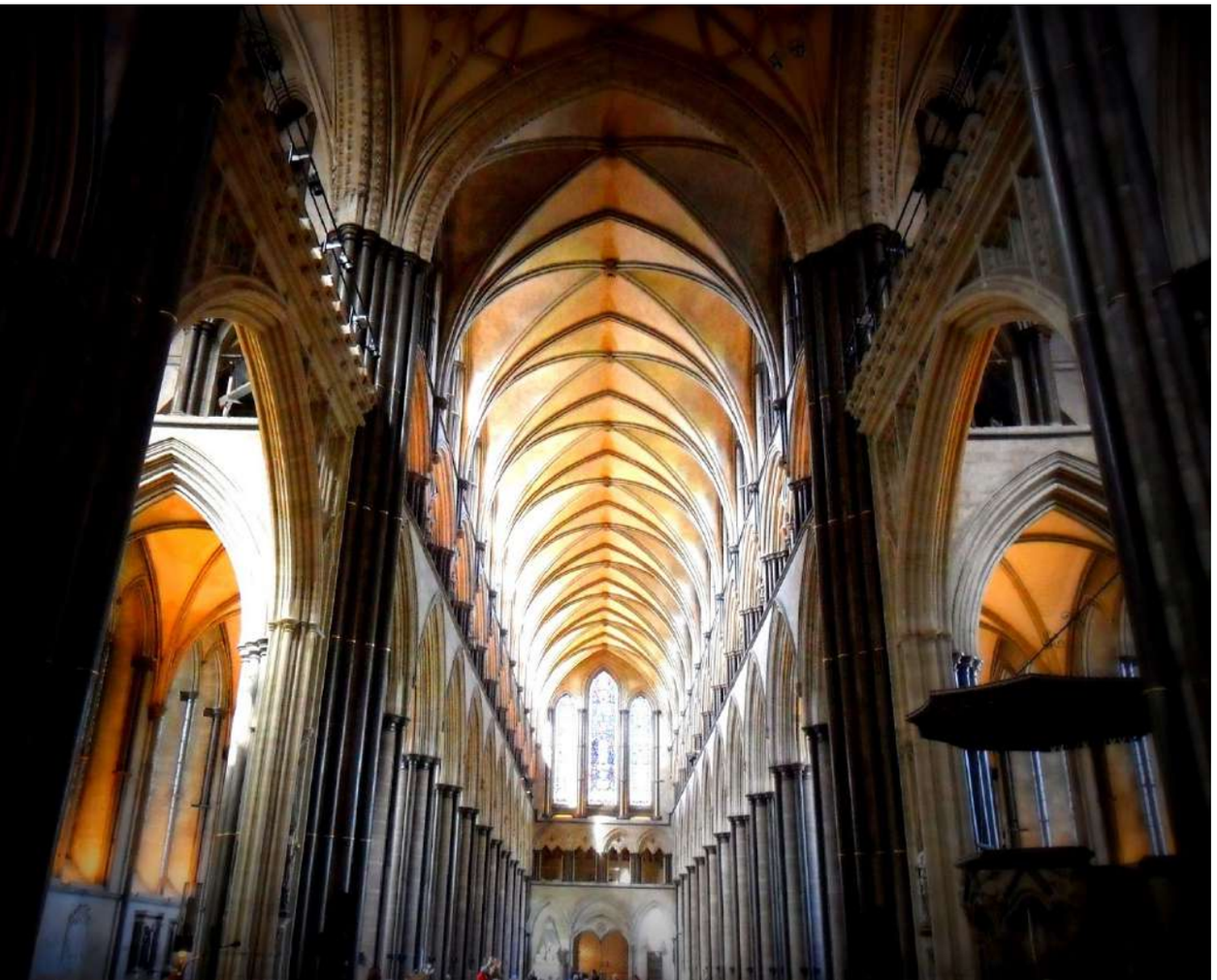
- Buildings had a **stone skeleton** made of the internal columns of the arcade with their attached shafts, the ribs of the vaults in addition to the external flying buttresses

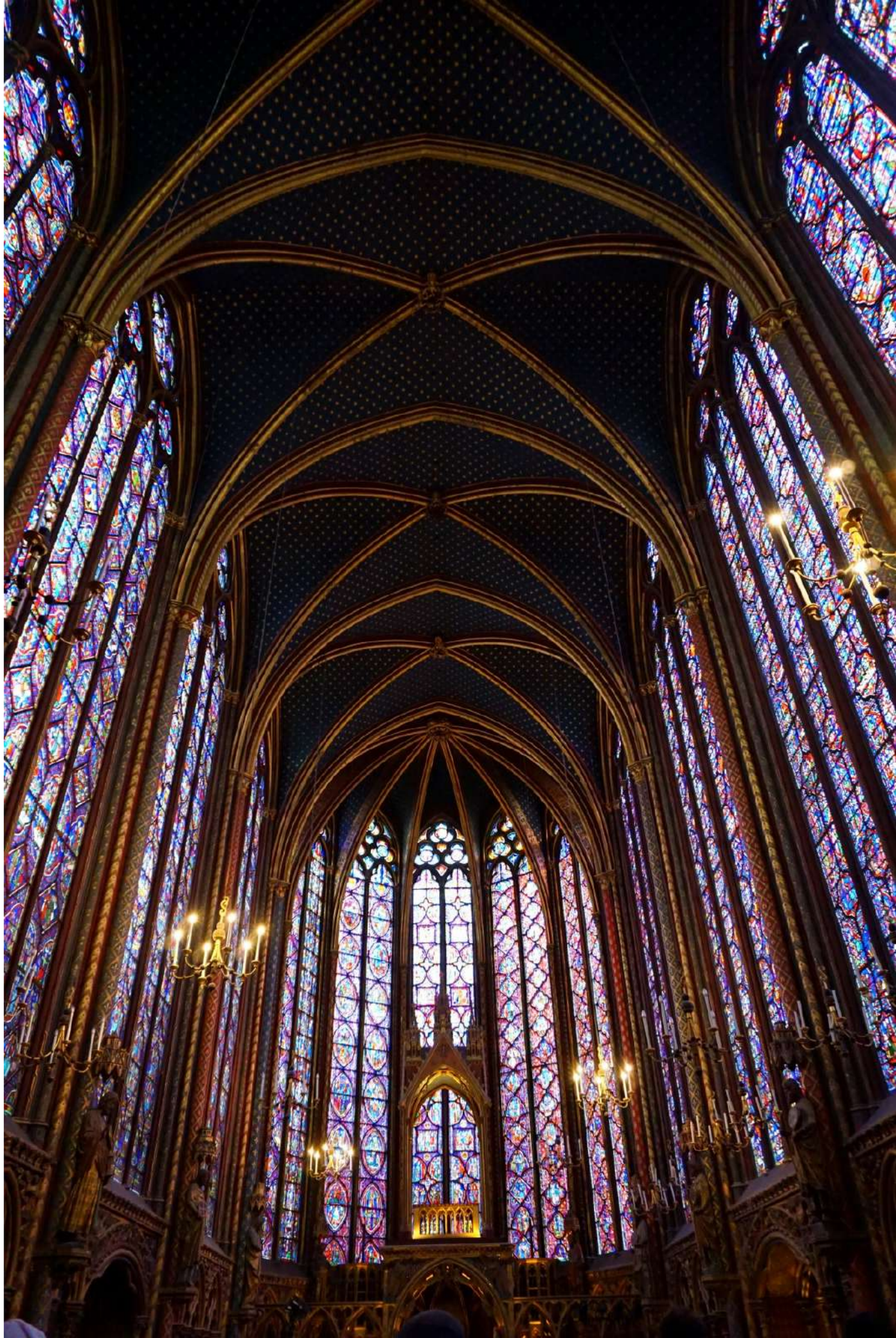




- Light appears to triumph over substance

- Light to **symbolize the eternal light of God**





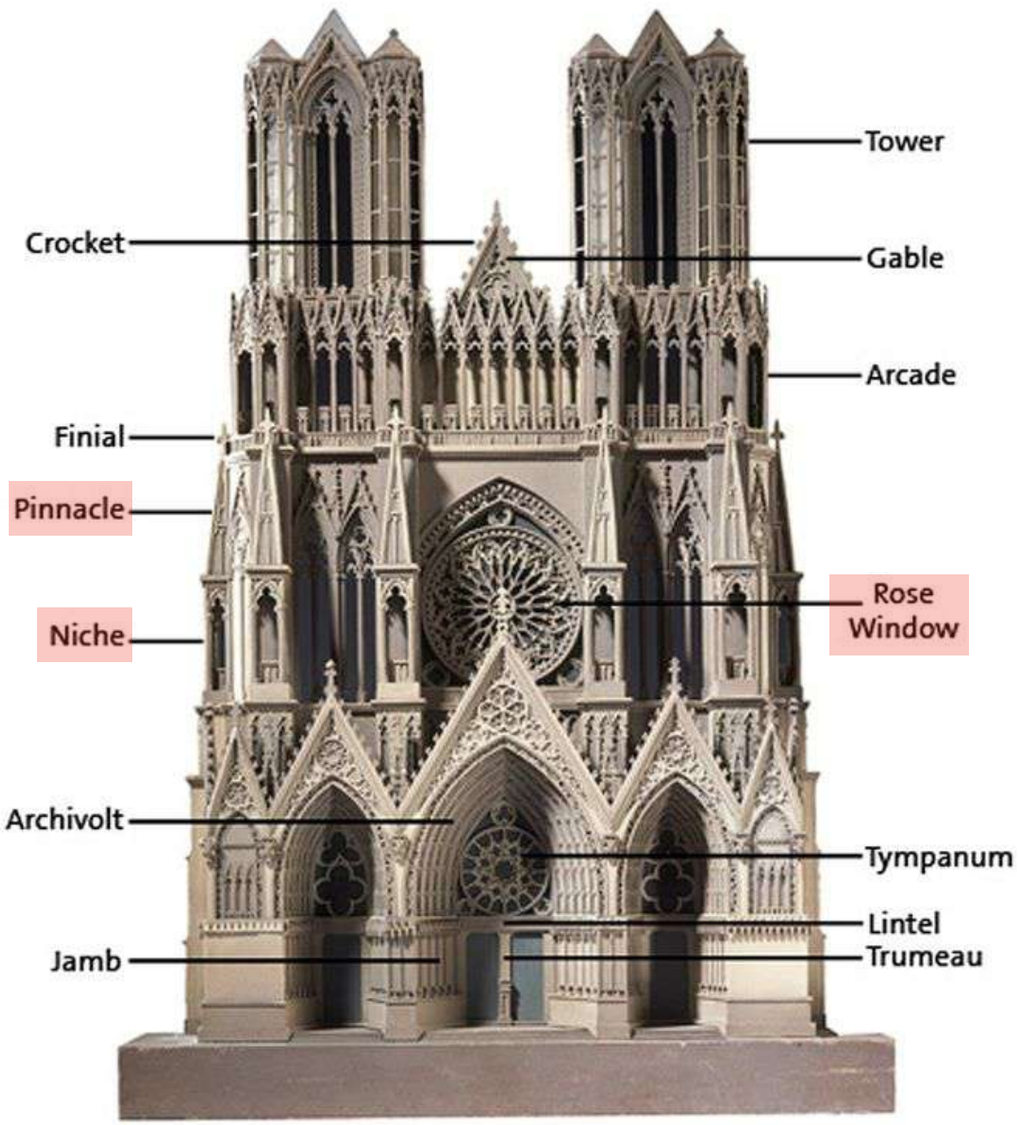
- **Vertical emphasis** both in exterior and interior

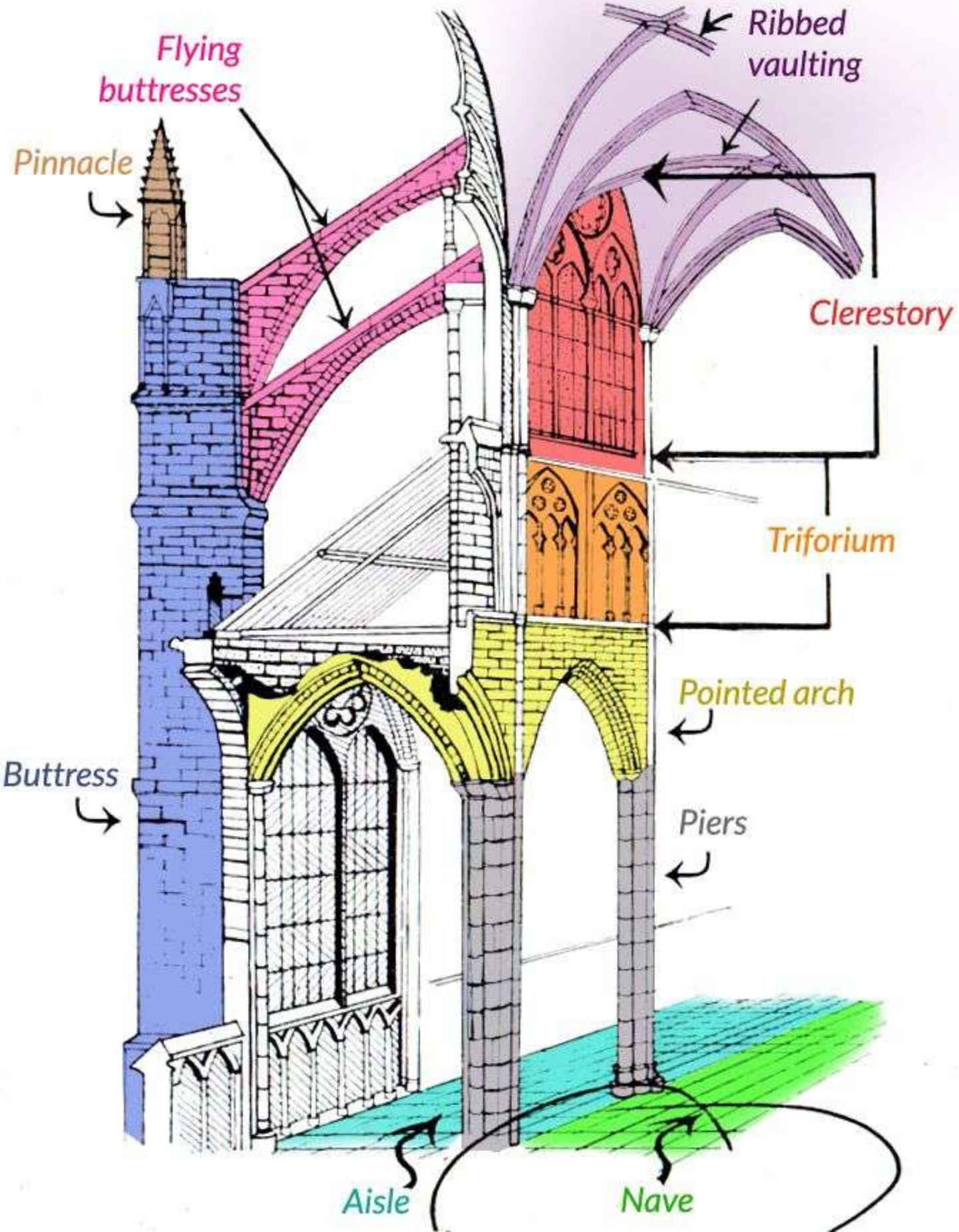
- The proportion of the nave height to its width is usually **2:1**, and reaches **3:1** in some cathedrals

- Magnificent elaborated facade

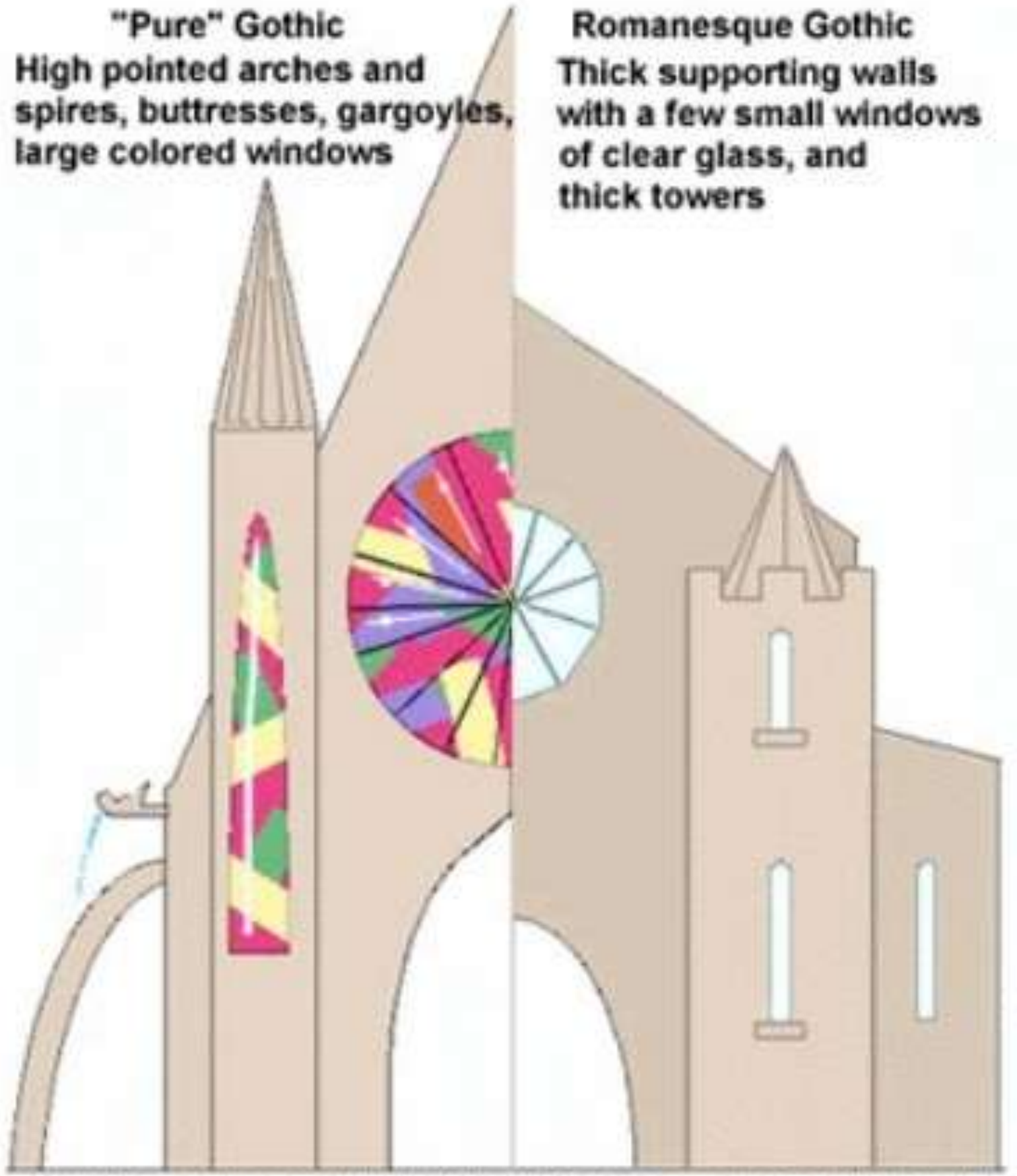
- A central recessed portal

- A rose window and other patterns of windows

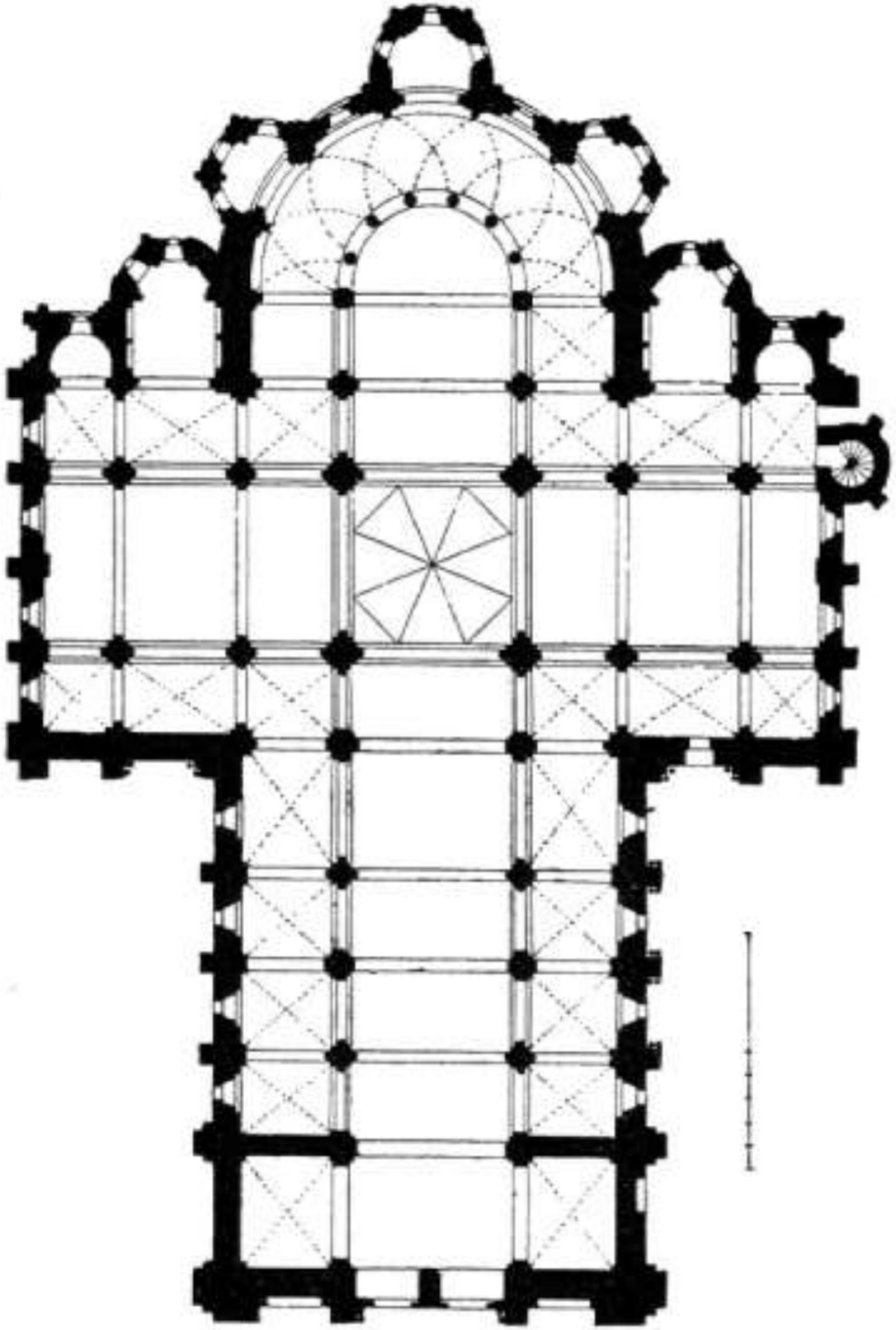



Flying buttresses
Ribbed vaulting
Pinnacle
Clerestory
Triforium
Pointed arch
Buttress
Piers
Aisle
Nave

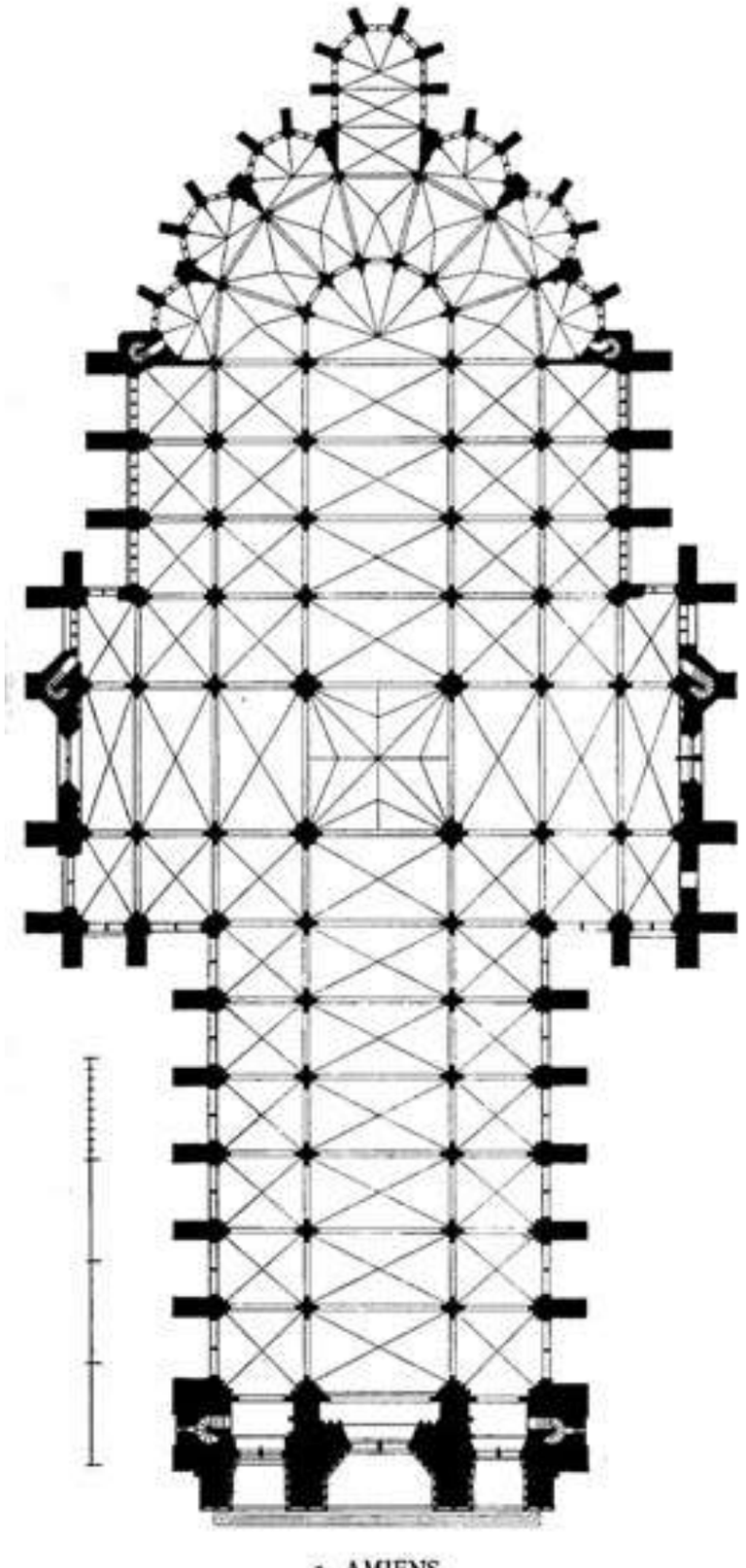
Gothic vs. Romanesque



Church facades: Gothic (left) and Romanesque Gothic (right)



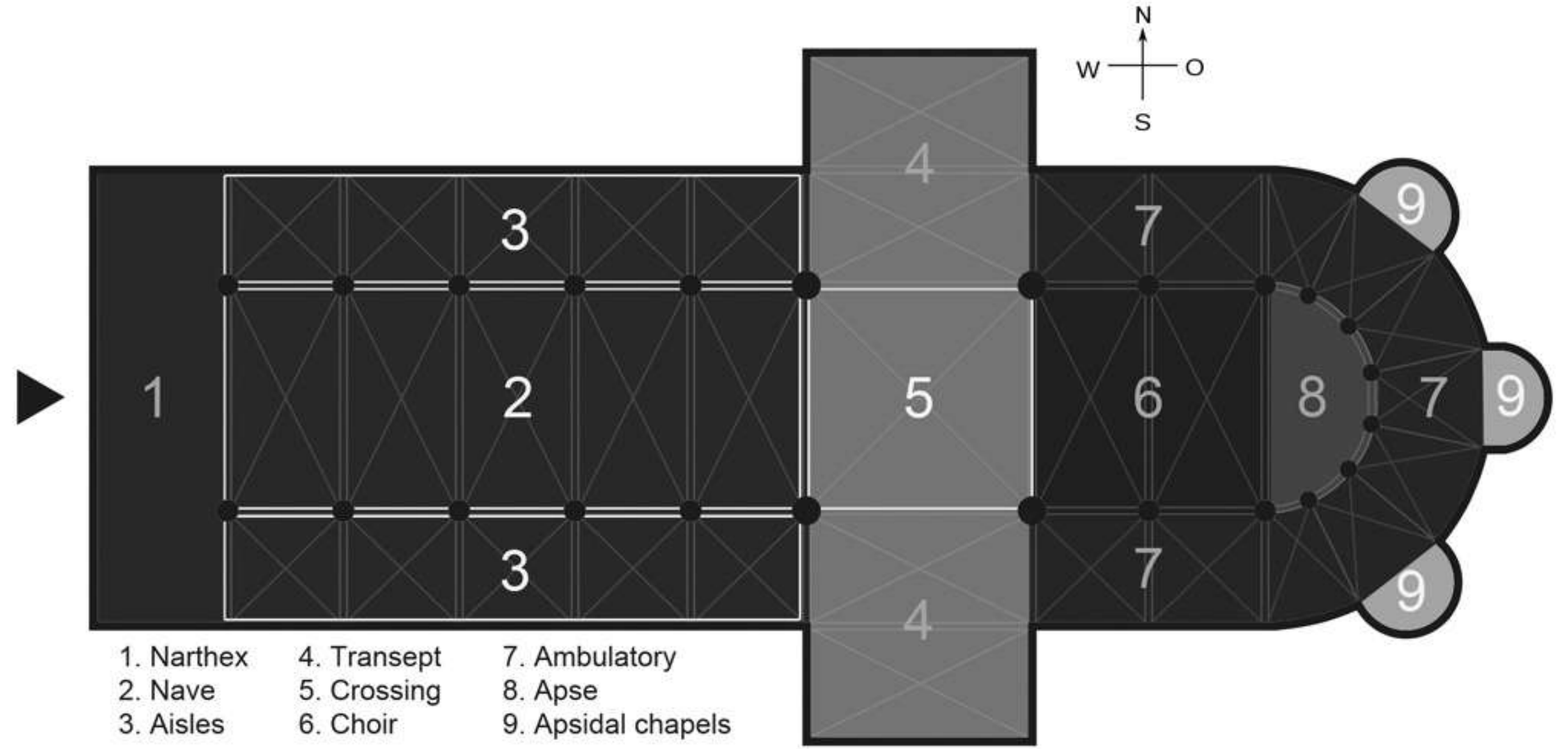
Romanesque



3. AMIENS.

Gothic

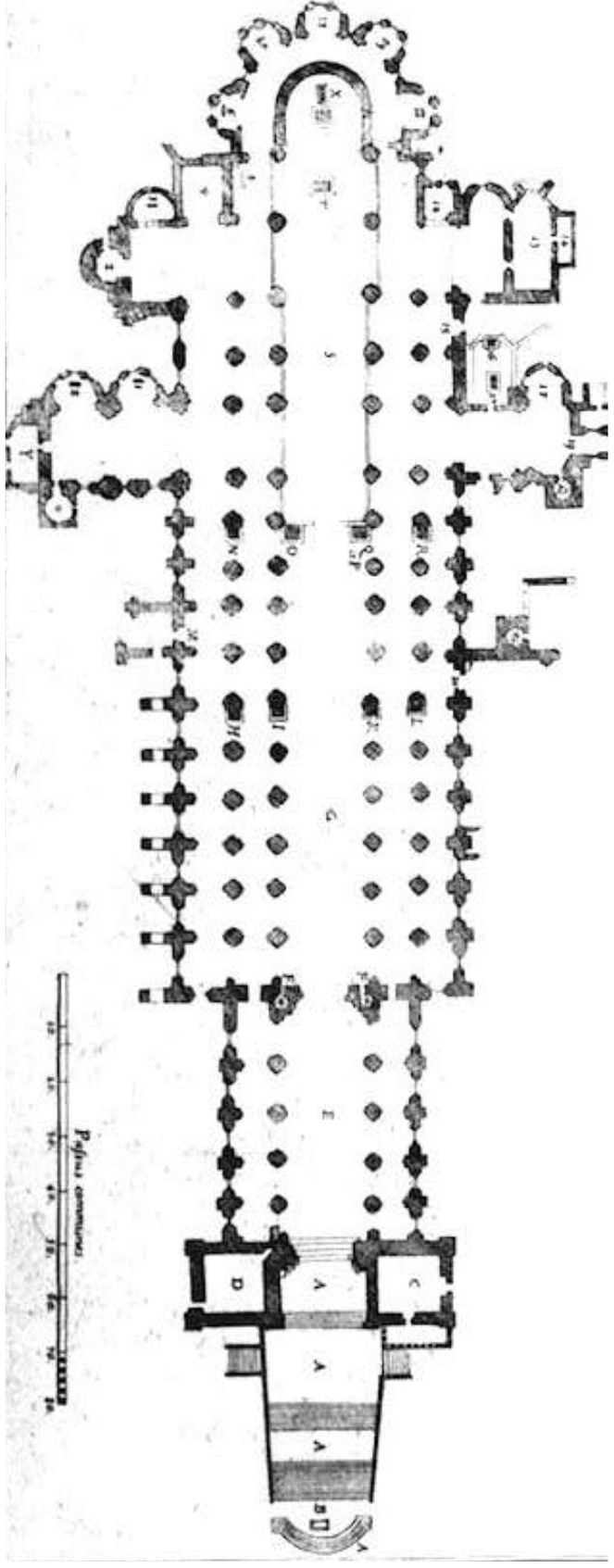
Church Parts Review



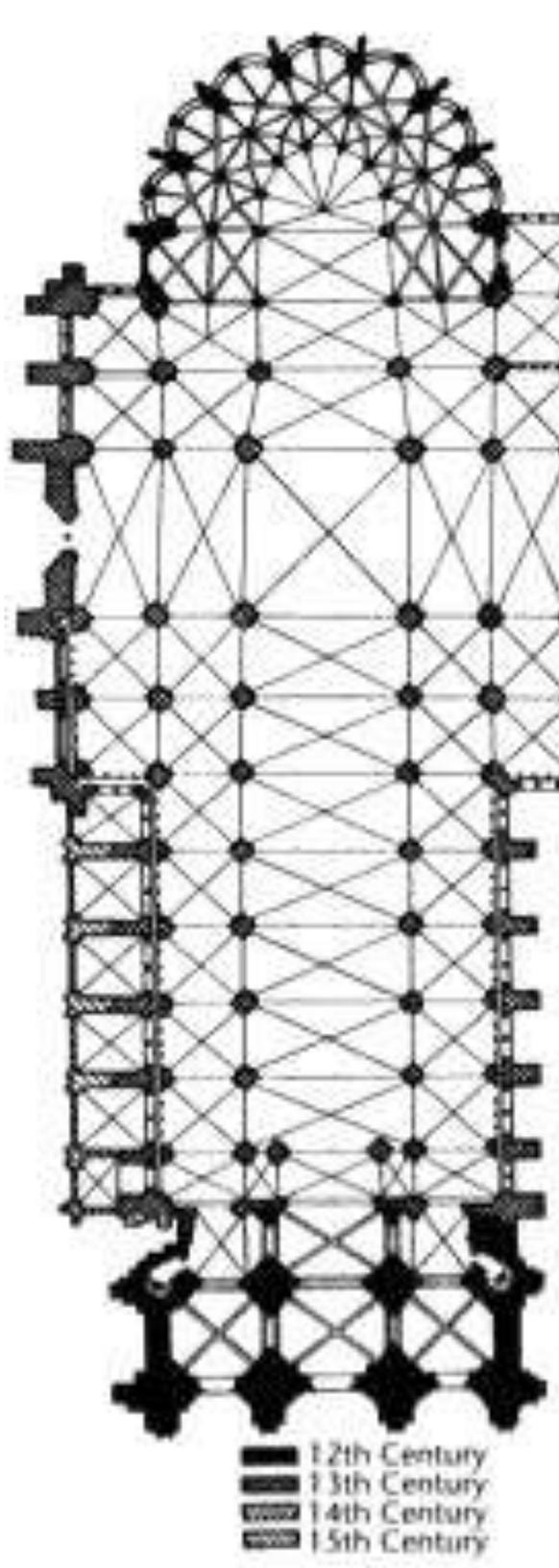
1. Narthex
2. Nave
3. Aisles
4. Transept
5. Crossing
6. Choir
7. Ambulatory
8. Apse
9. Apsidal chapels

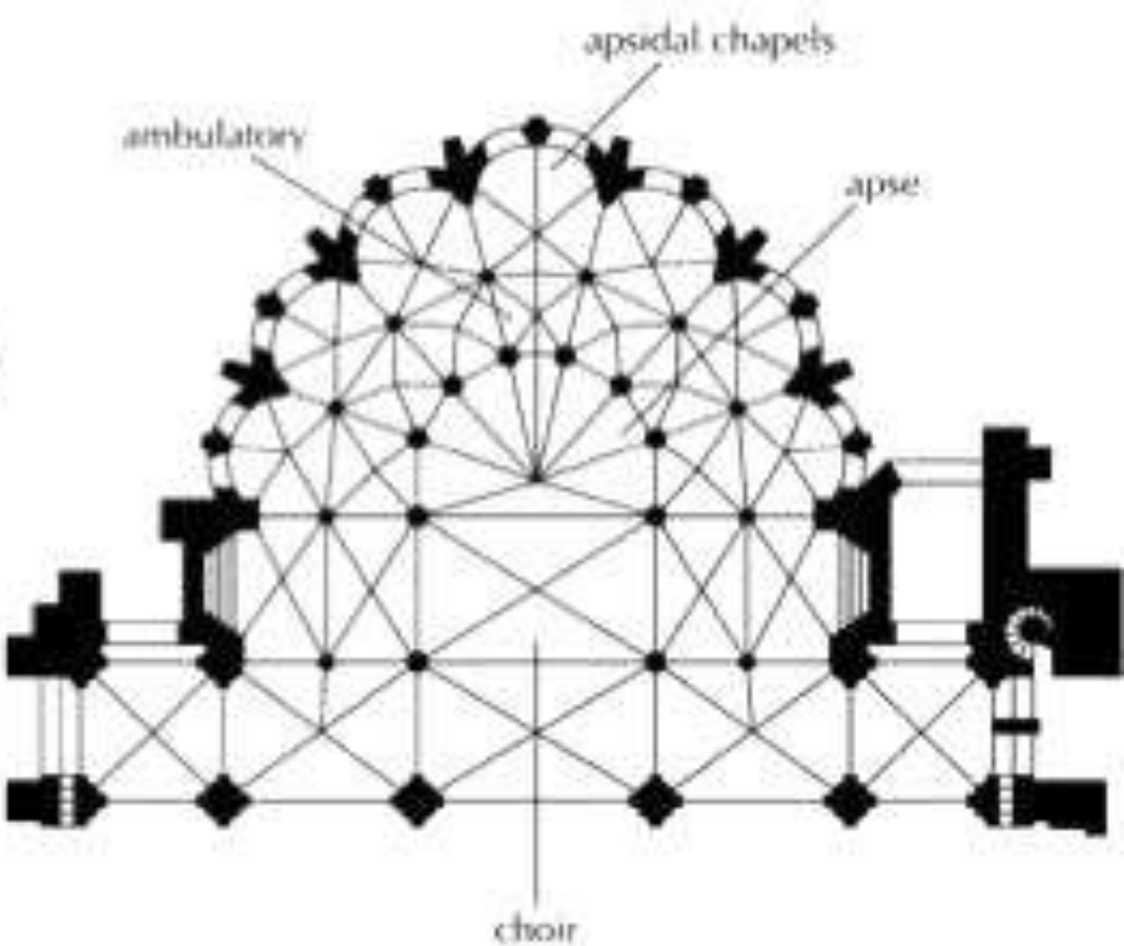
French Gothic

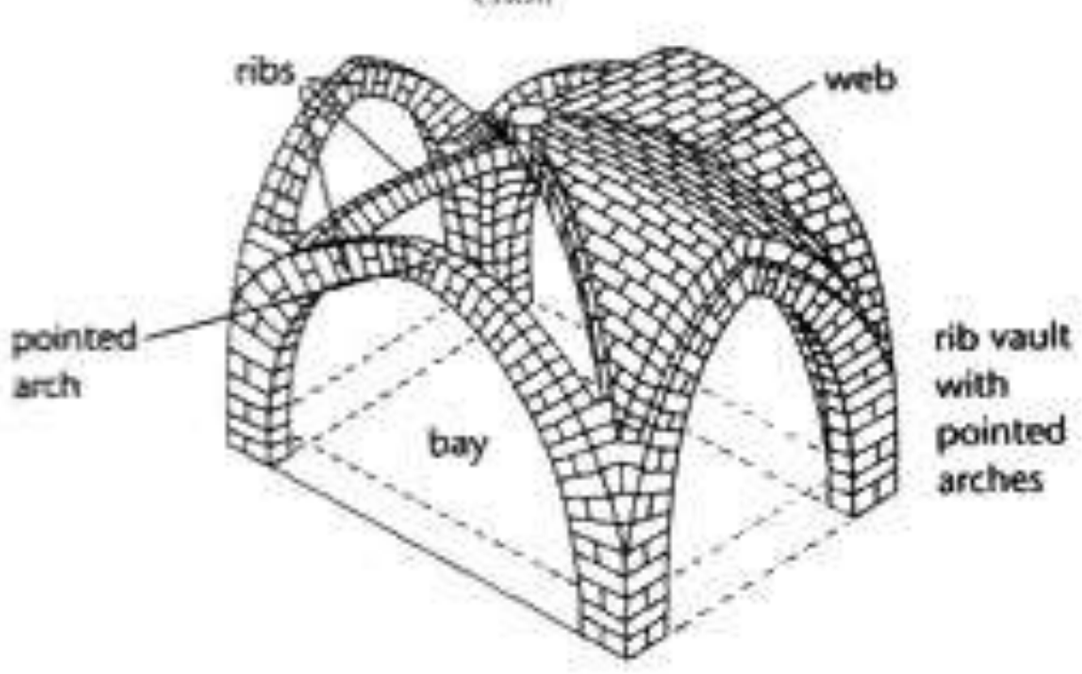
The new emphasis on **light** is what distinguished Gothic Architecture from the Romanesque



Cluny Abbey
Romanesque





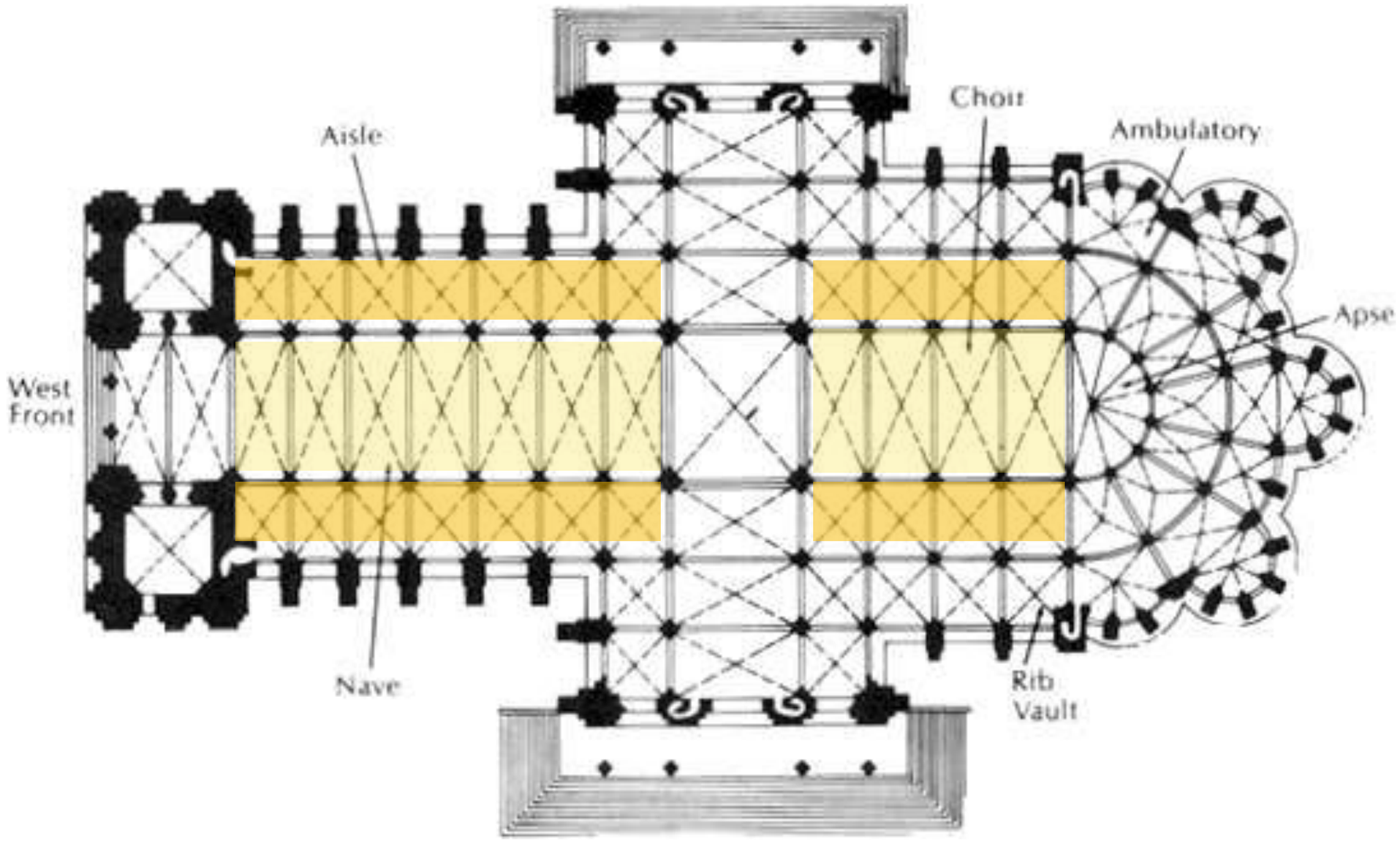


Basilica of St. Denis
Gothic

- The main change in the plan was the **choir**, became much larger

- Another change was in the creation of elaborated **entrances** not only at the west façade but also **at the end of each transept arm**

- Externally **flying buttresses** and tall vertical towers were visible



1) Pinnacle

2) Flying Buttress

3) Vaulting Web

4) Diagonal Rib

5) Transverse Rib

6) Springing

7) Clerestory

8) Oculus

9) Lancet

10) Triforium

11) Nave Arcade

12) Compound Pier with responds

French Gothic Cathedrals

Notre Dame Paris (1163-1214)

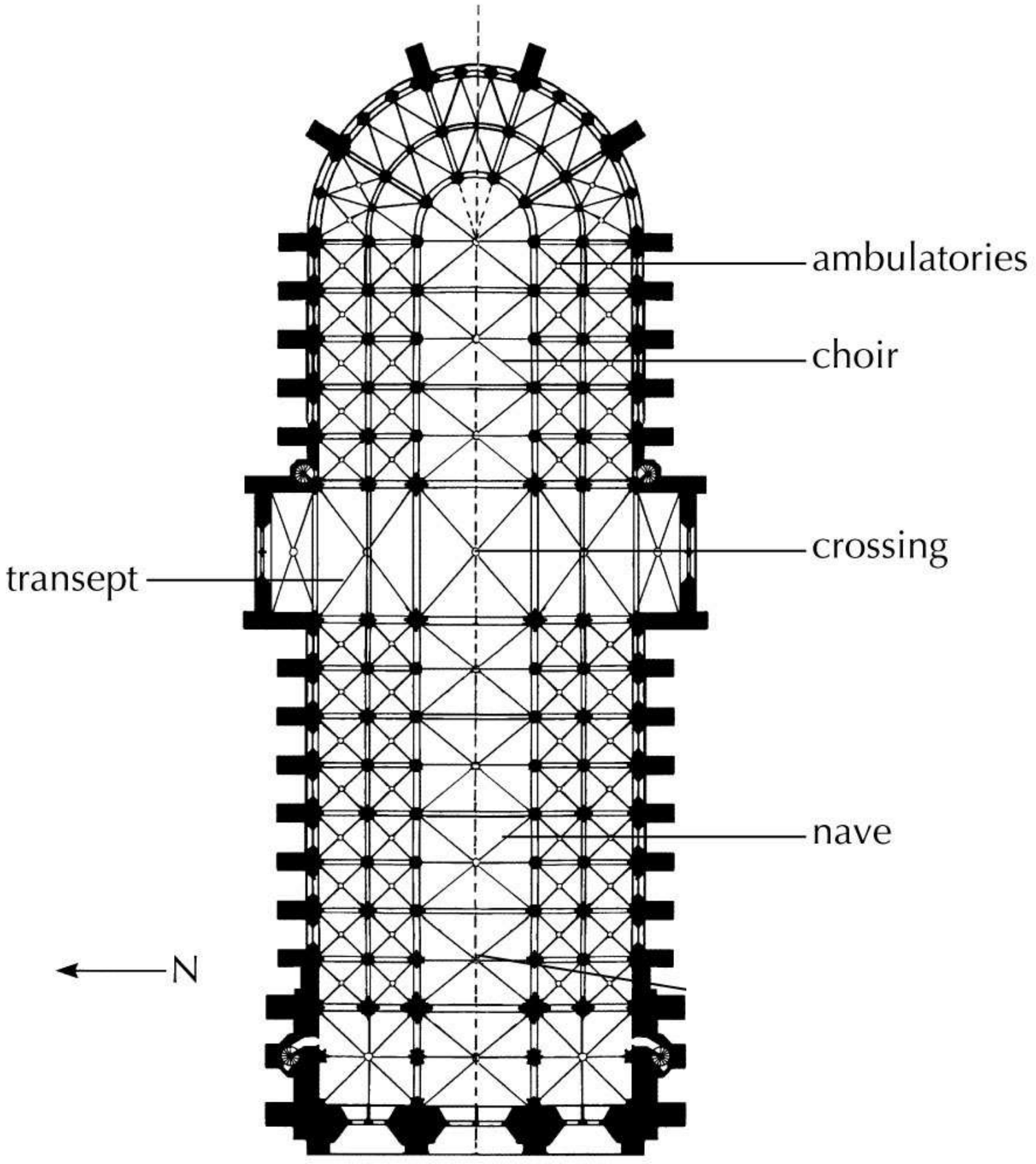
Notre Dame Paris (1163-1214)

- Typical plan with wide central nave and double aisles

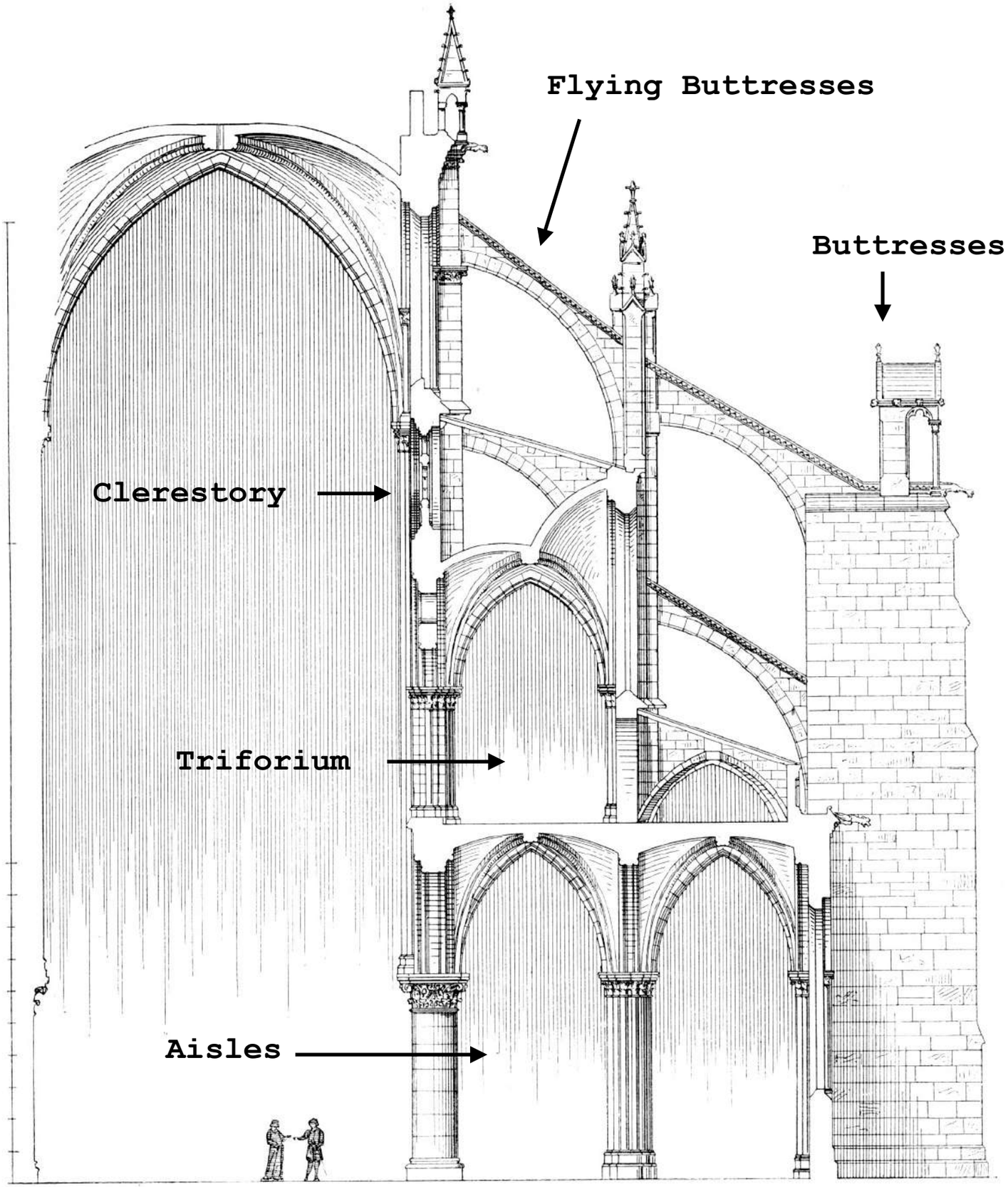
- Transept with small projection

- **Chevet** arrangement with its double aisles (ambulatories)

- First use of flying buttresses



Notre Dame Paris (1163-1214)



Notre Dame Paris (1163-1214)

The west facade shows characteristics of Gothic Architecture:

- Three recessed portals
- Statues in niches
- Circular wheel window (rose window)

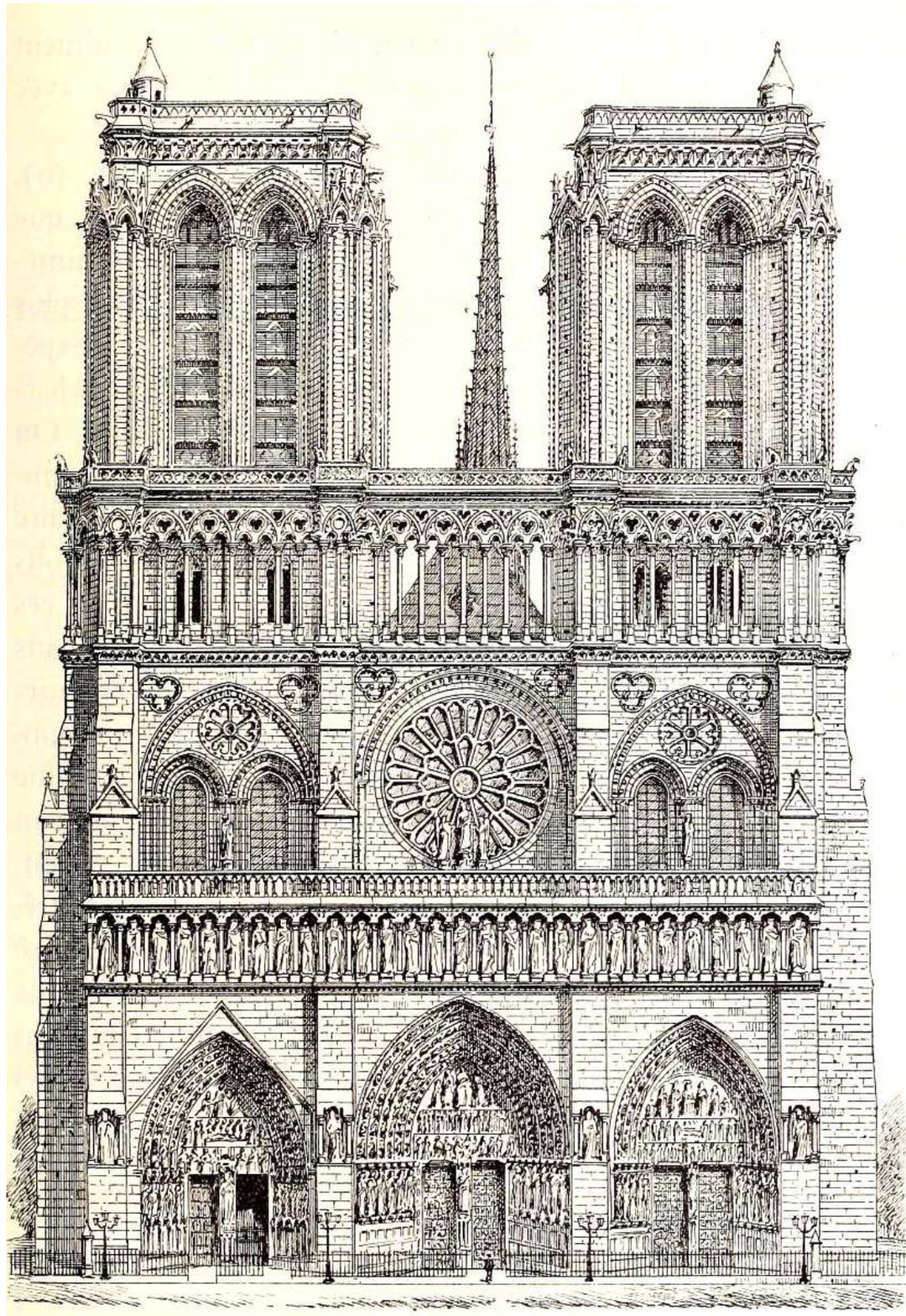


Fig. 29. — Notre-Dame de Paris. Façade principale.

https://www.youtube.com/watch?v=q3vEOddhCGU

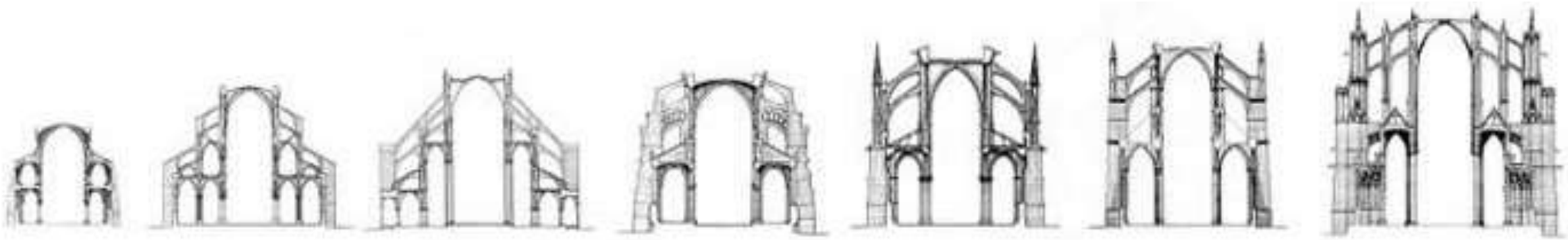
French Gothic

High Gothic Cathedrals

Charters

Aamiens

Beauvais



Laon N Dame Paris (Bourges) Chartres Reims Amiens Beauvais

French Gothic

Late Gothic Cathedrals

- In France, the embellishment of the architecture resulted in decorative forms, especially in the stone tracery of stain glass windows

- The tracery had wavy fluidity like fire **(Flamboyant gothic)**

English Gothic

Unlike French vertical Cathedrals, the English cathedrals had:

1. lateral extension of the cathedrals

2. Keeping the vertical dimensions much lower than they were in France

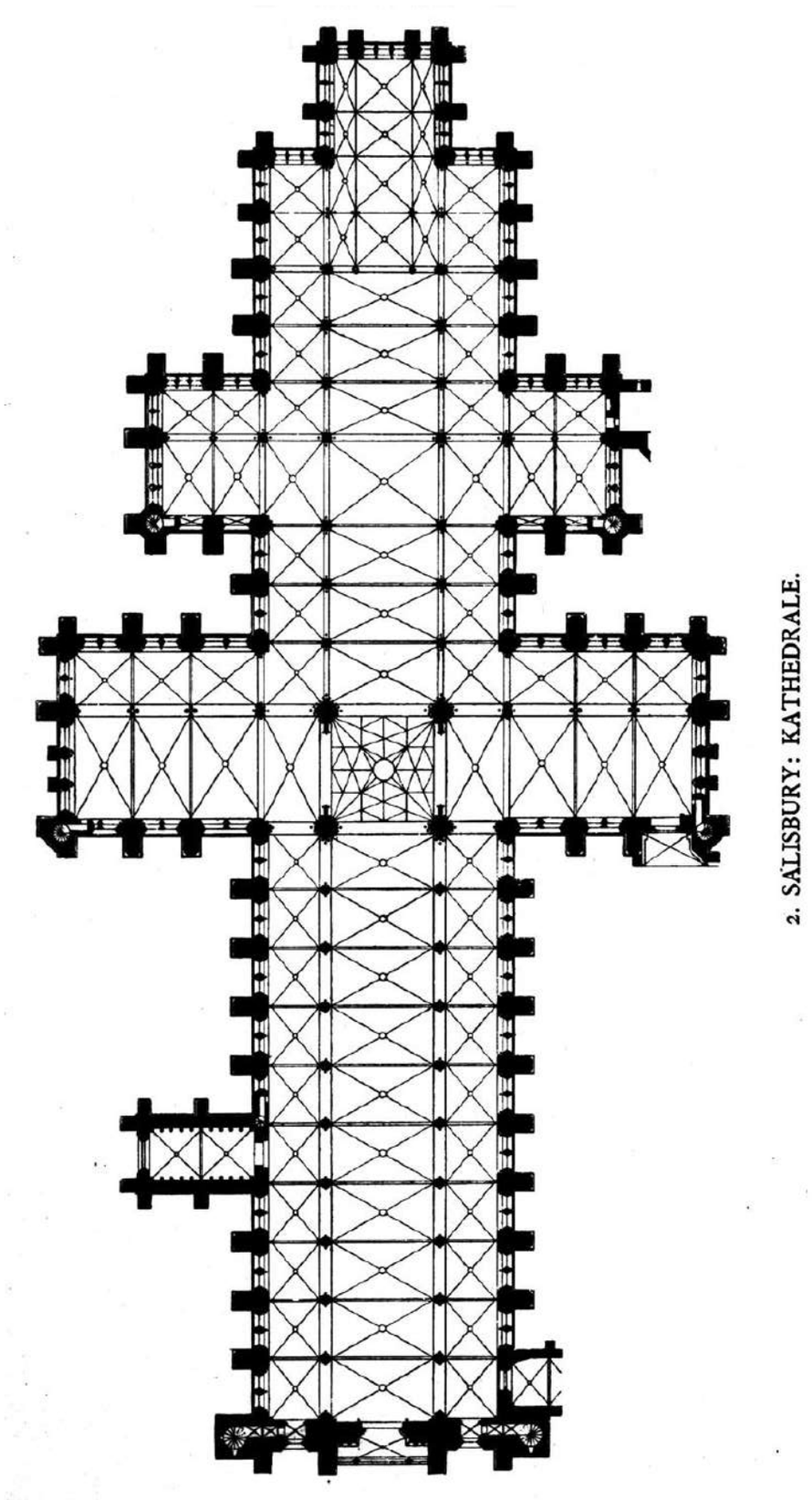
3. Stressing the horizontal moulding and string - courses of masonry that marked the edge of the three horizontal divisions in interior (arcade, triforum, clearstory)

4. Cathedrals main tower was at the crossing

5. The cathedrals had two transepts

6. The churches had flat east ends instead of a curved chevet

7. Ceilings had a large degree of decoration and fantasy



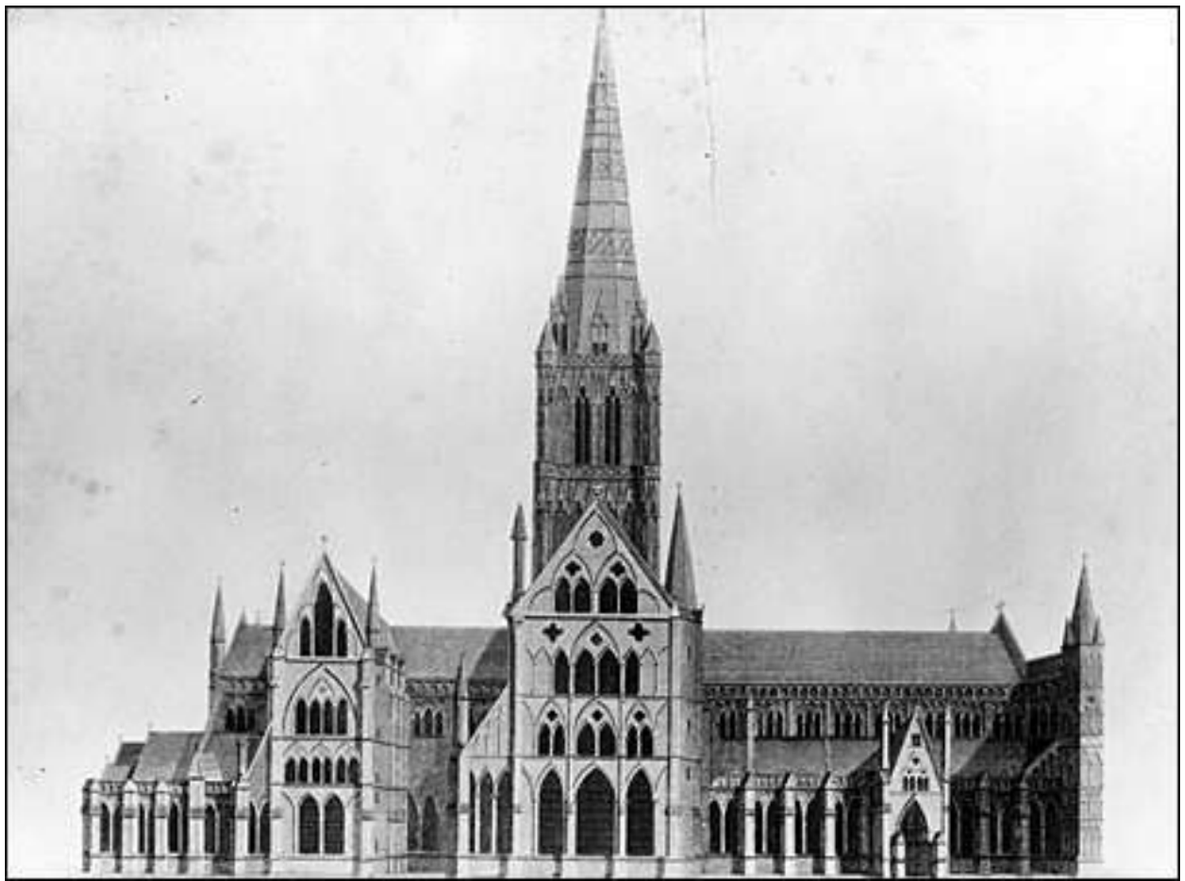
Salisbury Cathedral

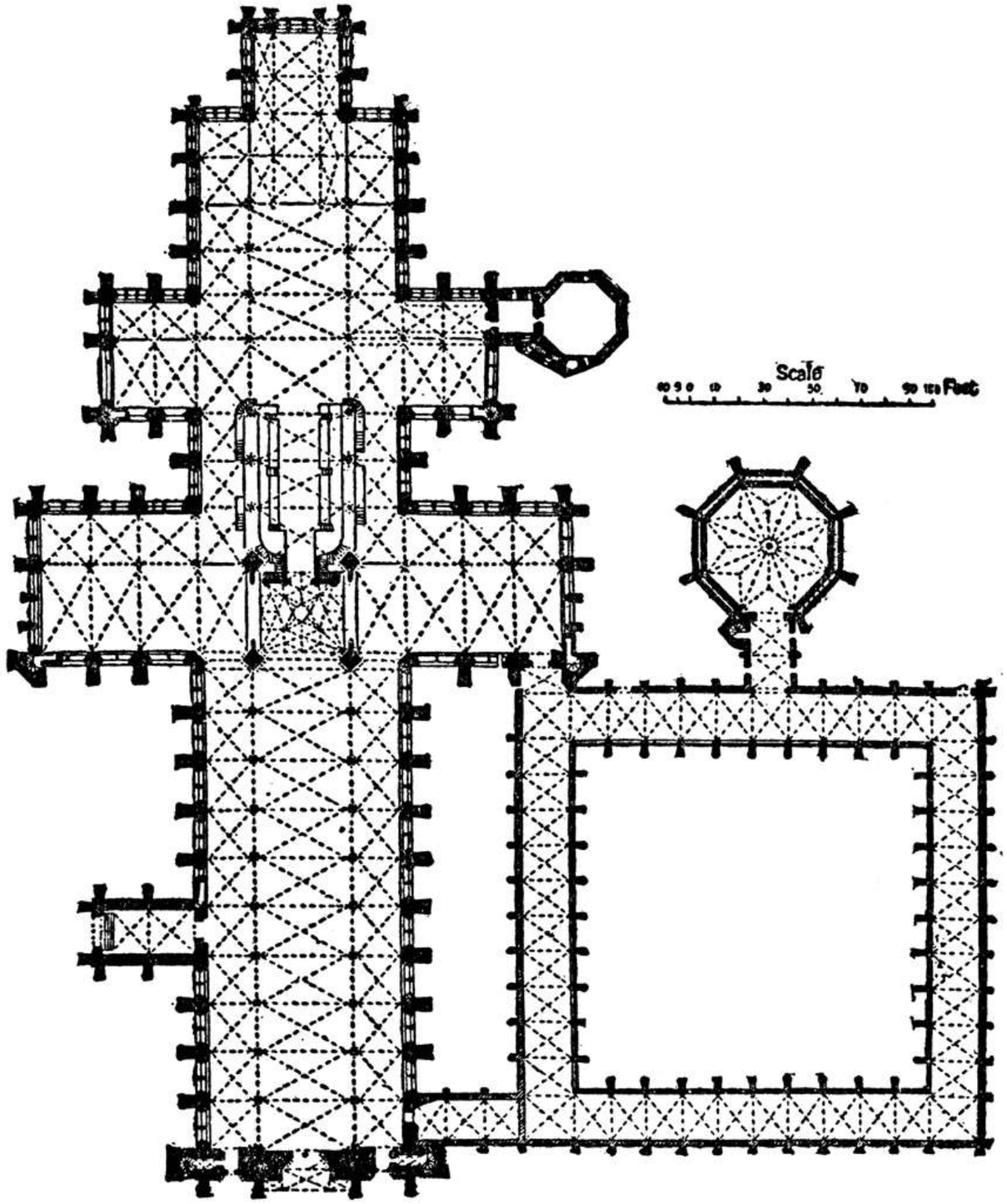
Salisbury Cathedral

- Classic example of English gothic

- Central tower

- Horizontal moulding create a lateral emphasis (The facade emphasizes horizontality by horizontal bands of decoration)



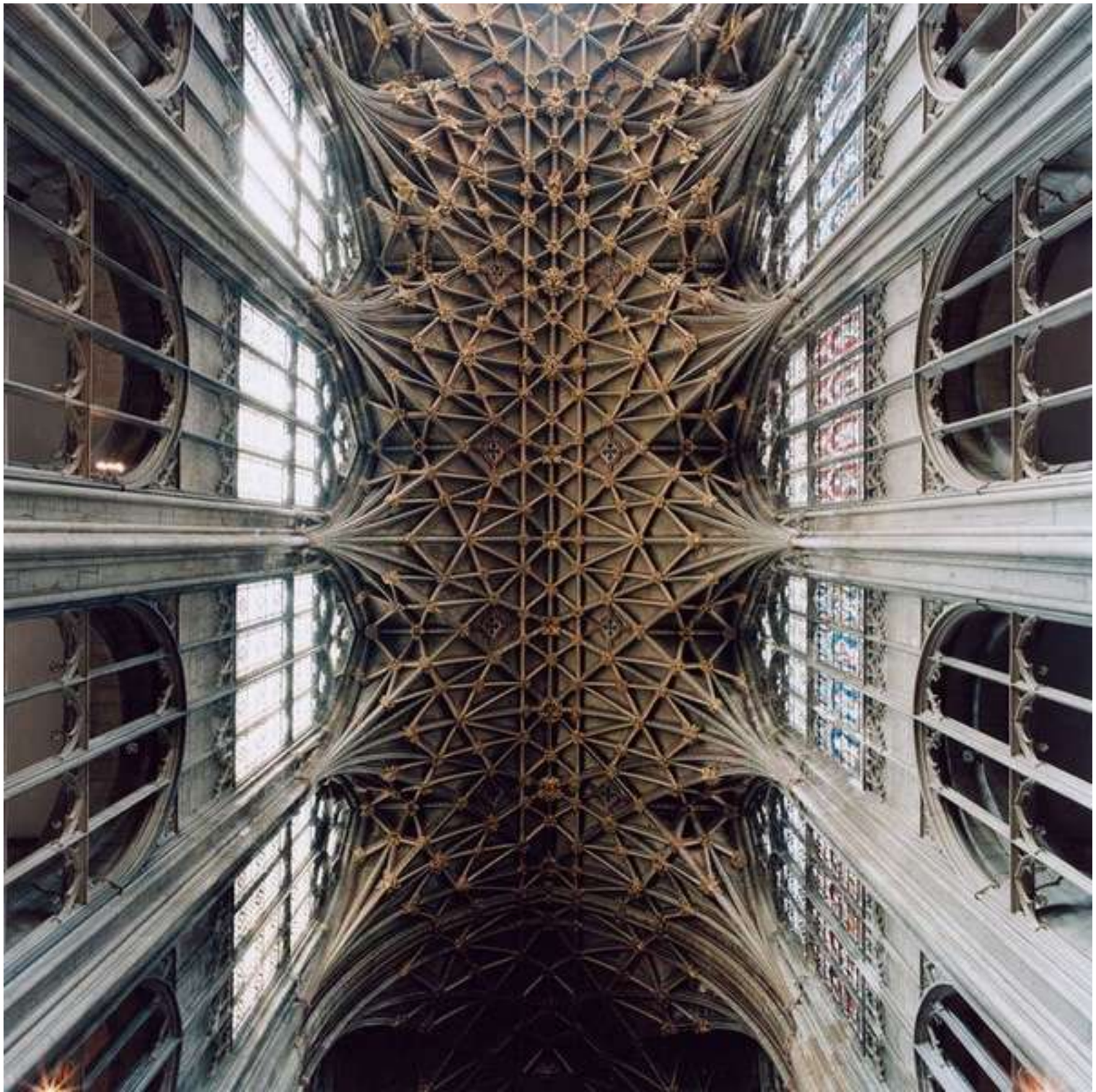


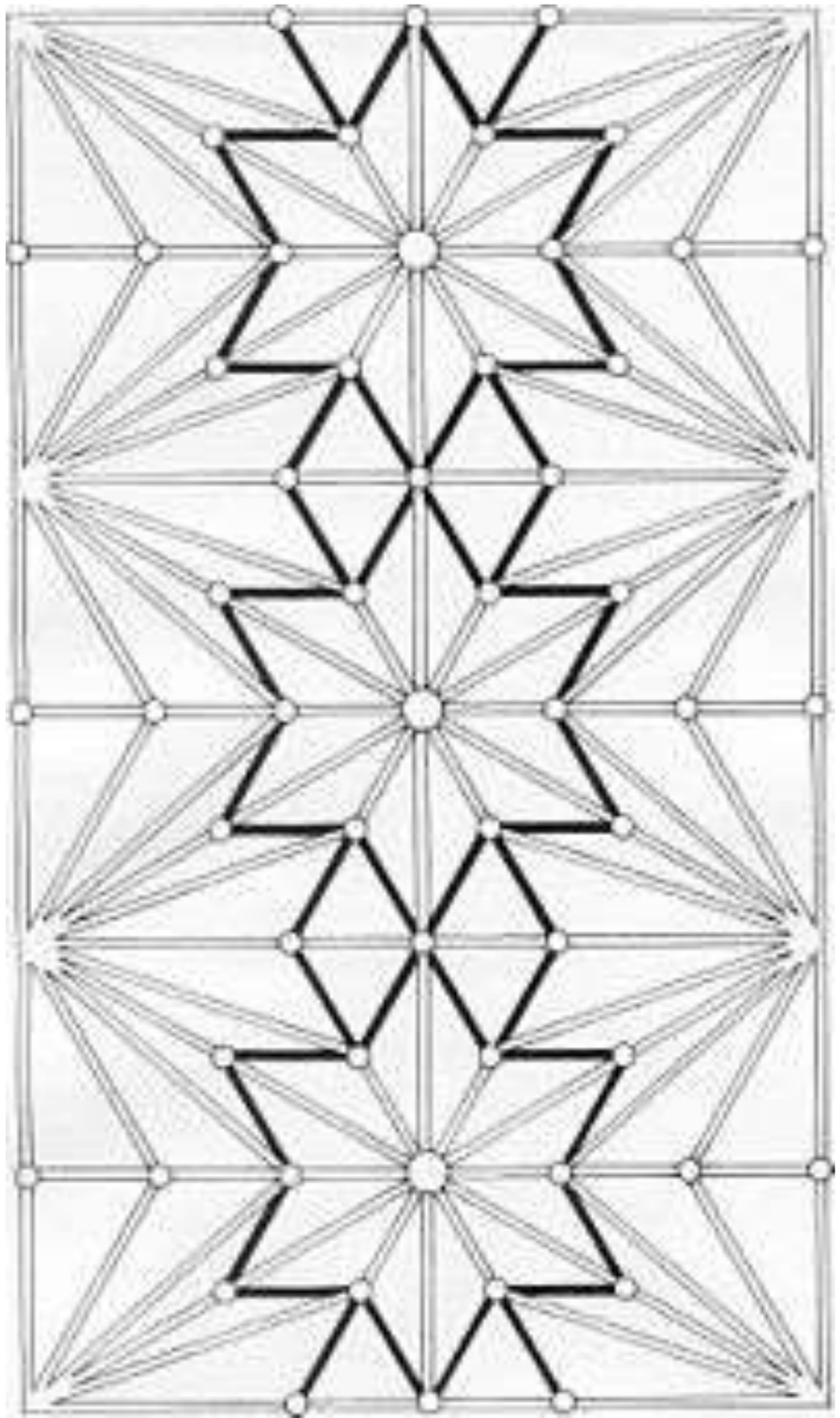
Salisbury Cathedral

English Gothic

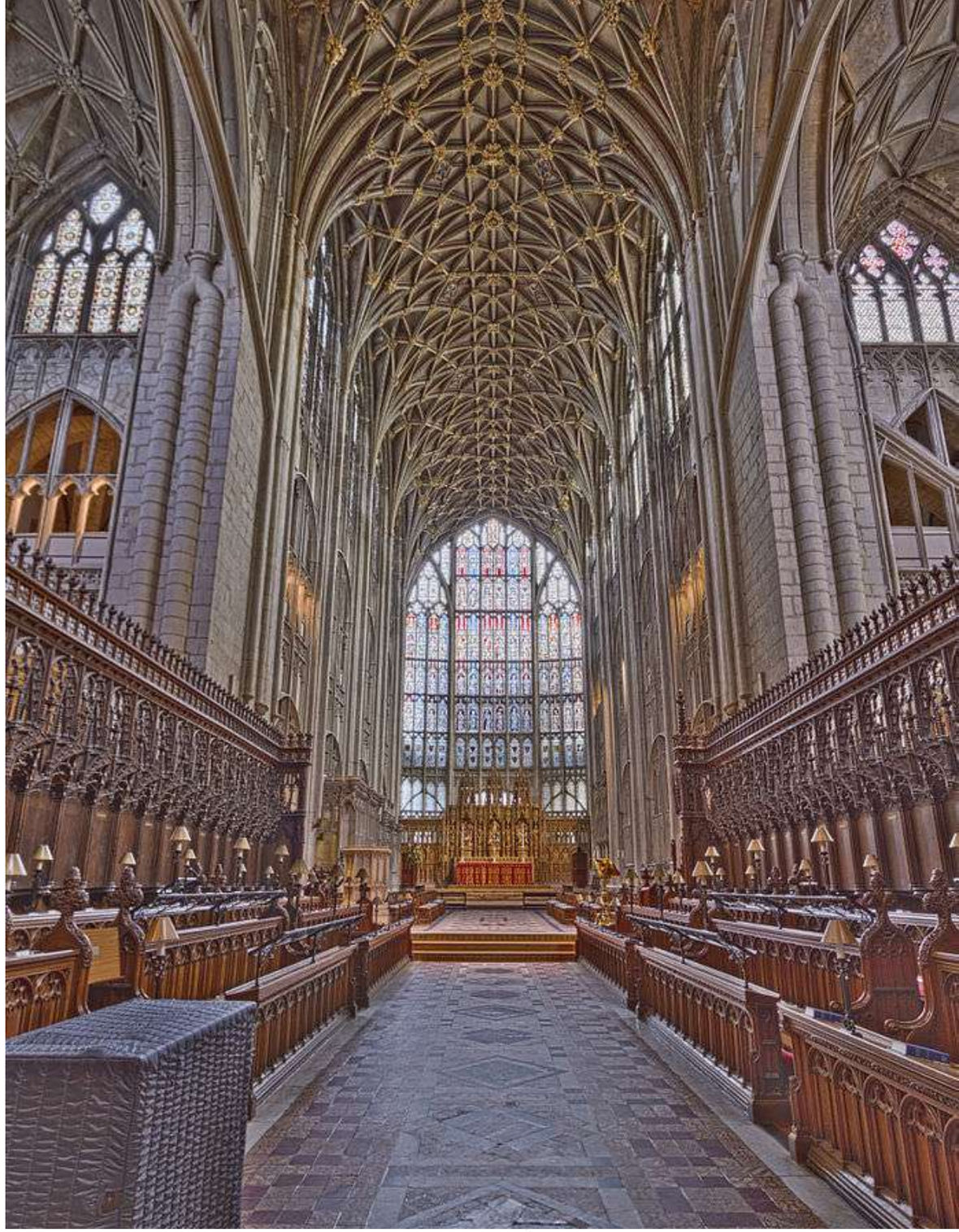
Late Gothic Cathedrals

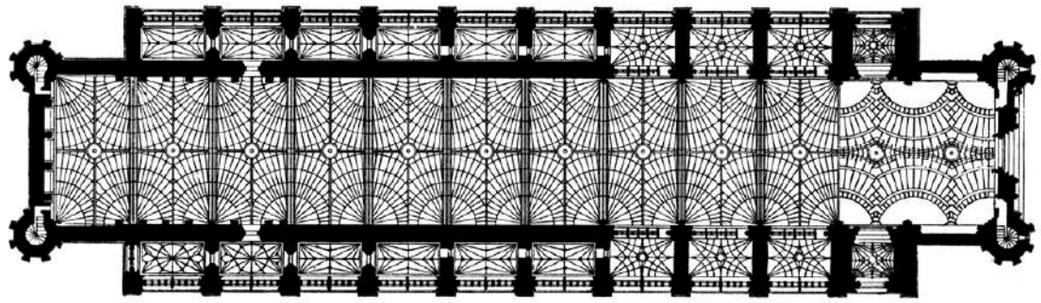
- **Lierne vaulting** where the rib vaults are multiplied to become an overlay of decoration





- Another style that was found in late England was the **fan vaulting** where a dense cluster of non-structural thin ribs radiate out from each column





CAMBRIDGE: KINGS COLLEGE CHAPEL.

Links

https://www.youtube.com/watch?v=IwKg4ESvYG4

Next lecture

Islamic Architecture