

Gothic Architecture

History of Architecture

No'man Bayaty

Introduction

- The period in which this style thrived is between 13th – 15th century.
- At this period the modern nations were starting to take form.
- The climate in the northern parts was more suitable for the style.
- Christianity represented by the pope and the clergy were at the peak of their power.
- The Holy Roman Empire was shaking, and Europe was filled with kings.
- The crusades resulted in a strong interaction with the middle-east.
- The whole idea of Medieval architecture stands on Nationalism and Romanticism.

Introduction

- The word “Goth” refers to the barbaric tribes that messed up Europe’s serenity for centuries.
- The reason the architecture was named after them is because the style mainly developed in France and then Germany, lands of the barbarian.
- Gothic architecture was used for churches and cathedrals mainly, but in its late times it was used for educational buildings also, like colleges and universities.
- This is a result of the idea of Gothic buildings as educational buildings, which were meant for popular education.
- The buildings and their sculptures, paintings and decorations were used as source of knowledge, history and tell biblical stories.

Architectural Character



S. Vitus Cathedral, Prague.

Architectural Character

- The jump from Romanesque to Gothic

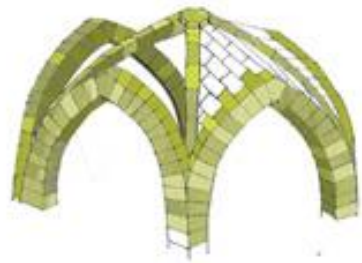


Architectural Character

- The style is a strong alteration on its Romanesque precedent.
- The Gothic architects changed many things which suggests a strong interruption with the Roman architecture.
- Gothic churches' plans were like Romanesque, mainly a Latin cross.
- Gothic architecture was innovative on many levels, Mostly three levels: structural, visual and spiritual.
- The first level is the structural level, where they used three new important elements and techniques.

Architectural Character

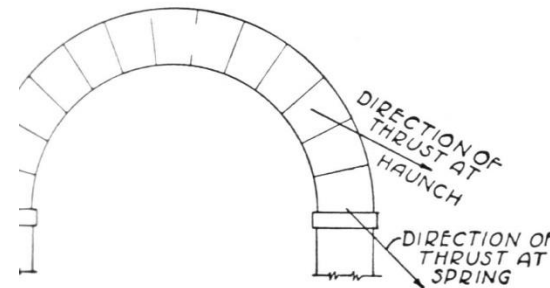
- Gothic Structure:
- 1- The pointed arch.
- The pointed arch was more efficient than the Roman round arch, since it gave more vertical thrust than horizontal.
- It helped the building get higher and lighter.



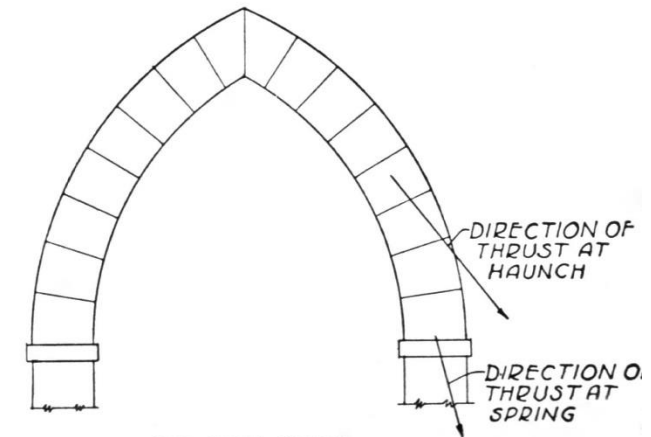
Rib Vault



Groin Vault



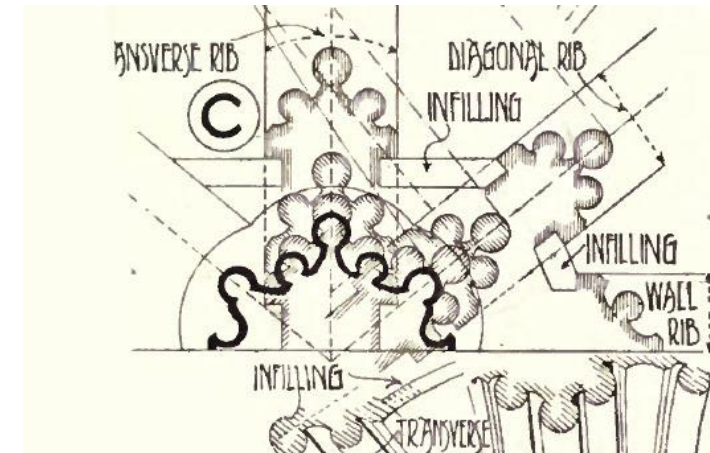
ROUND ARCH



POINTED ARCH

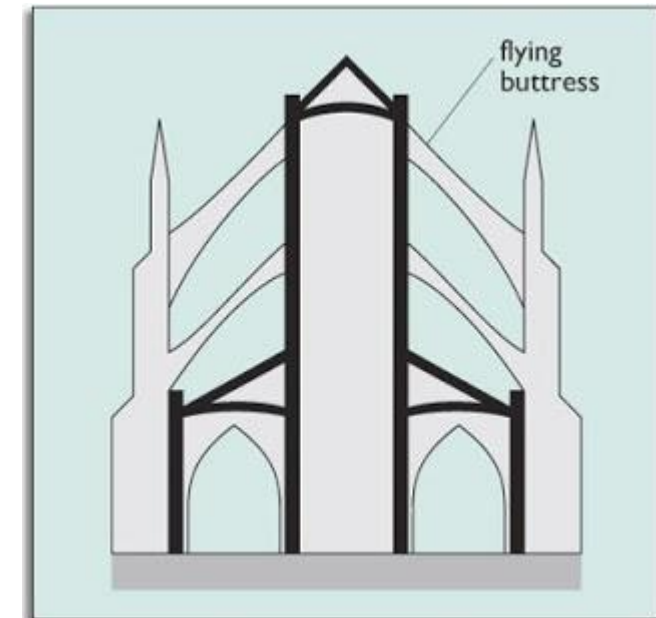
Architectural Character

- Gothic Structure:
- 2- The ribbed vault.
- Gothic architects used the same vaults, but this time with pointed arch sections, and ribs (transverse & diagonal ribs).
- These ribs will act like a skeleton system, helping in carrying the weight.
- The ribs were not just an addition, but were a complete system, starting from the columns, ending with the tip of the arch.



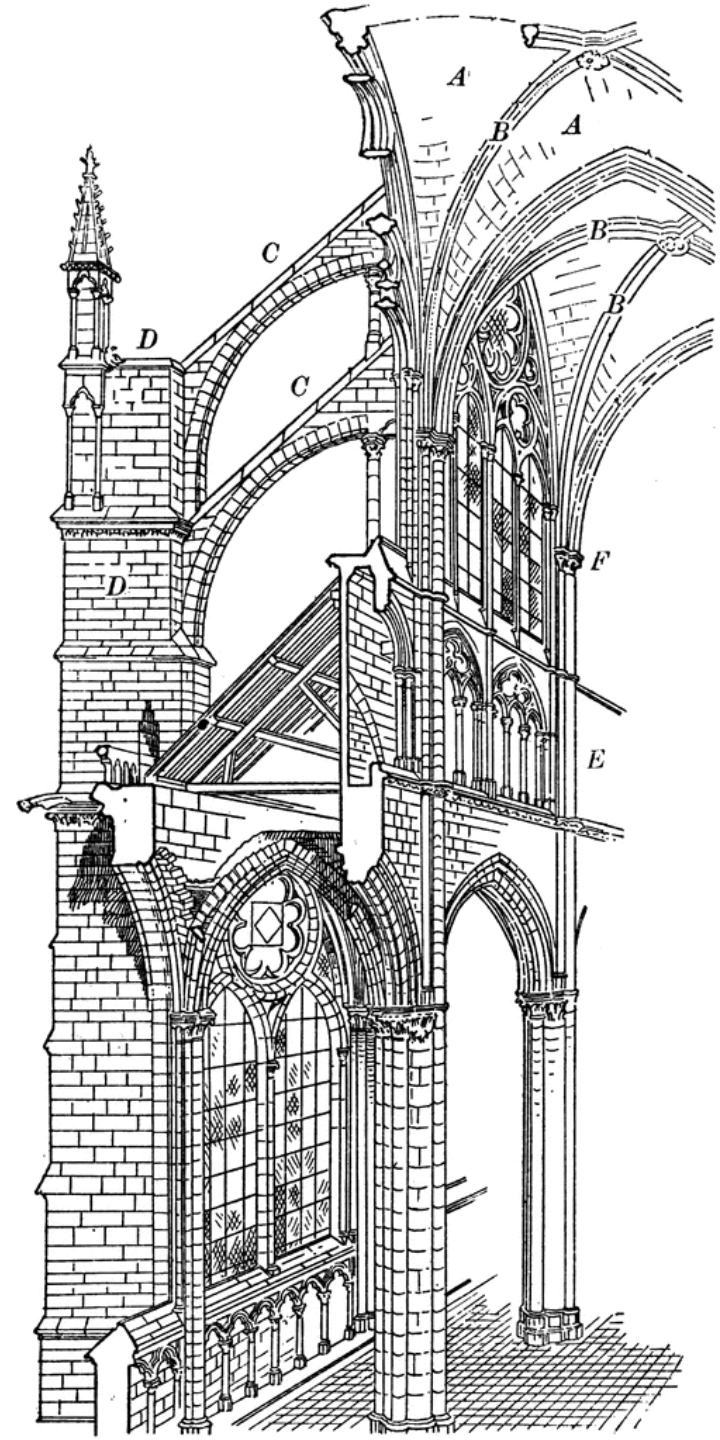
Architectural Character

- Gothic Structure:
- 3- The flying buttress.
- The flying buttress is an external structural element.
- It is basically an unattached buttress (tower), connected to the building through a bridge-like element.
- It helps carrying the weight of the vaults without destroying the interior.



Architectural Character

- Gothic Structure:
- These three elements combined gave the Gothic architecture its character.
- They helped making the Gothic buildings higher and lighter.
- This led to another result, which was reducing the load on the walls, and now the walls were no longer the primary support of the building.



Architectural Character

- Visual level:
- Since the walls in Gothic architecture were carrying less weight, it became possible to make them thinner, and make larger openings in them.
- This is why the Gothic buildings were brighter and more airy.
- They developed large, stained, colored windows.
- These high windows, entered more light and colored light adding to spirituality of the building.
- They also developed the rose window, a circular window with a specific location, usually the western elevation (the main entrance).



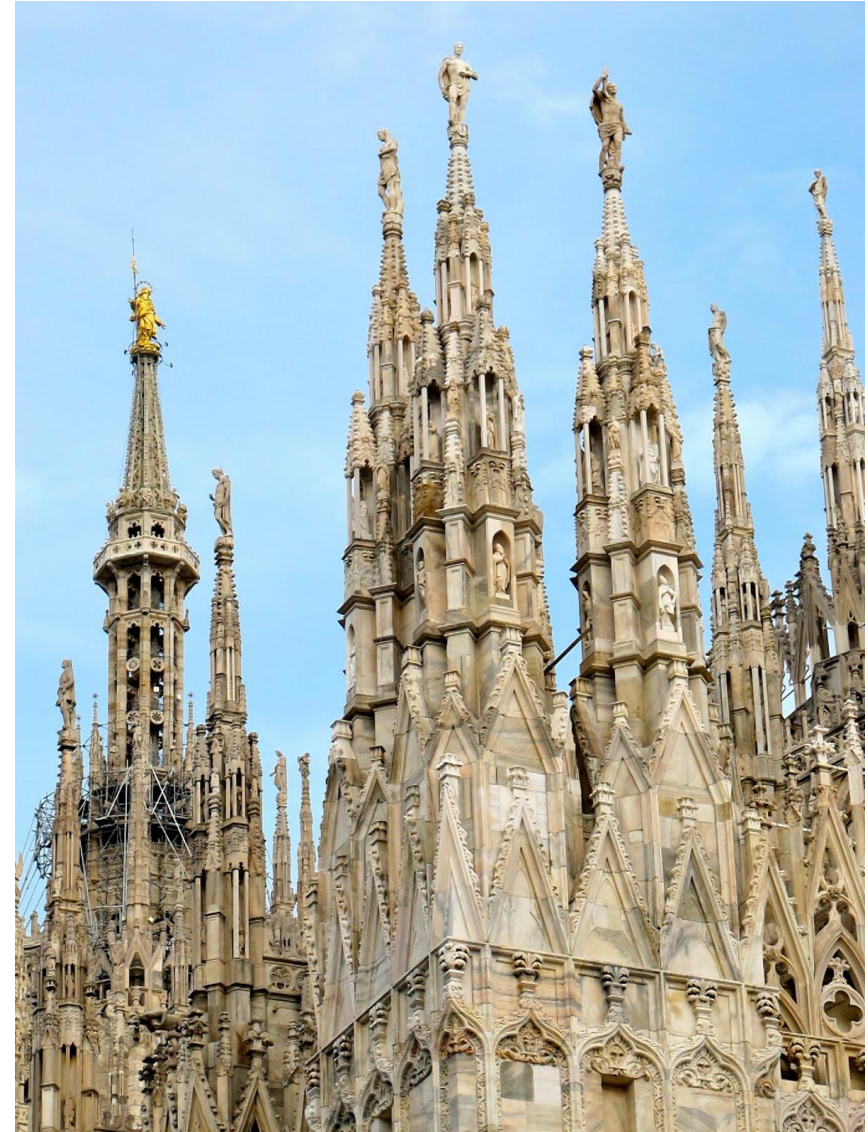
Architectural Character

- Visual level:
- They also used gargoyles: small statues of mystic animals. These were usually used to tell religious stories, like most of the other decorative elements.



Architectural Character

- Visual level:
- Gothic towers and buttresses were massive and very high. They usually ended with spires and pinnacles.
- Spires: elongated elements, usually ending with a sharp pointy tip.
- Pinnacles: are ornaments used to decorate the top, or cap, or crown of the tower.



Architectural Character

- Spiritual level:
- As stated earlier the Gothic buildings served symbolic purposes, through teaching the culture to people using decoration and painting, transforming the buildings into cultural records.
- The peak of Christian religion power resulted into a very religious society, promoting very spiritual buildings.
- The extreme heights of the cathedrals made them seem like an attempt to touch the skies.
- The perfection of the Gothic building was a result of the idea that the cathedral was God's kingdom on earth.

Architectural Character

- Spiritual level:
- Huge spread of beliefs in magic and superstitious ideas affected the architecture too, encouraging buildings to have a magical effect on the viewer.
- They aimed to strike the viewer with a mixture of feelings like, fear, awe and humbleness.



Architectural Character

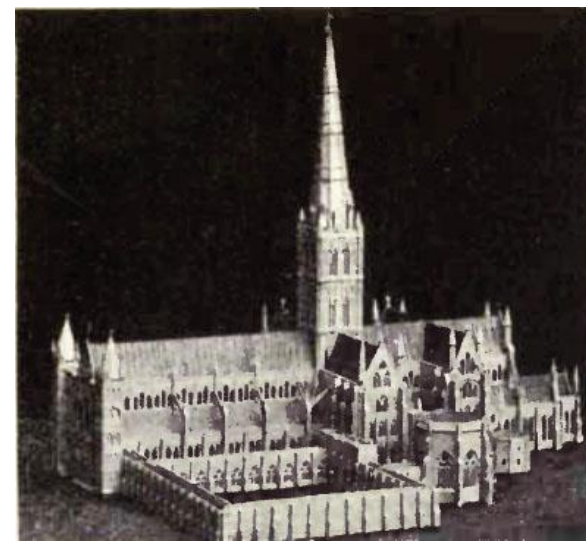
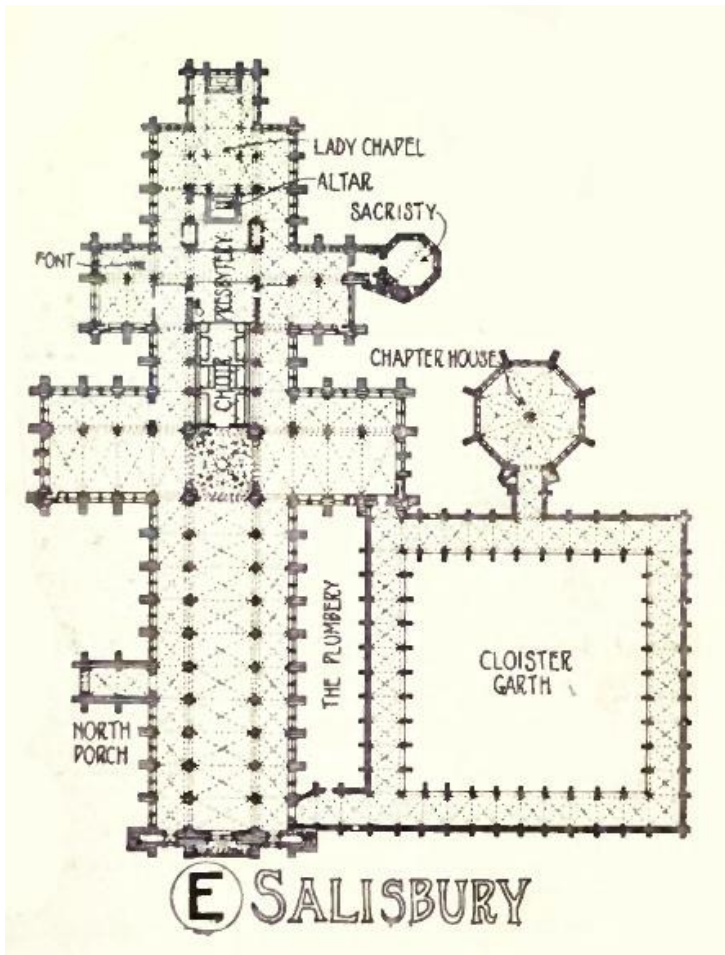
- Gothic buildings were seen as symbols of non-architectural elements.
- To some theorists, Gothic architecture was a native style, while others saw it as an imported one.
- Many theorists compared the Gothic with the Roman, and despite the disdain it received from the early theorists, after Renaissance many theorists praised it, sometimes preferring it over the Roman architecture.

English Gothic

- The English added new ribs to vaults like intermediate ribs and stellar ribs.
- The English cathedrals were narrow and long.
- They mostly didn't have double aisles, or side chapels.
- The length of the cathedrals was emphasized by a low roofing for the nave.
- The western entrances were not as large as in the French cathedrals.
- The central tower was quite high compared to the low nave.
- The eastern apse was usually a square.
- The flying buttresses were not as famous as in France.
- Some of the English cathedrals had double transepts.
- The rose window on the western entrance is mostly neglected.

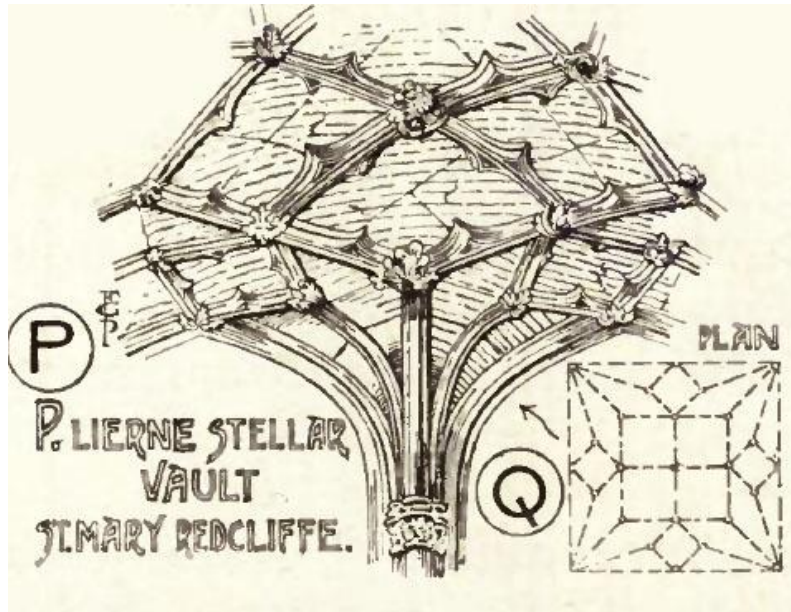
English Gothic

- Salisbury Cathedral, Salisbury:



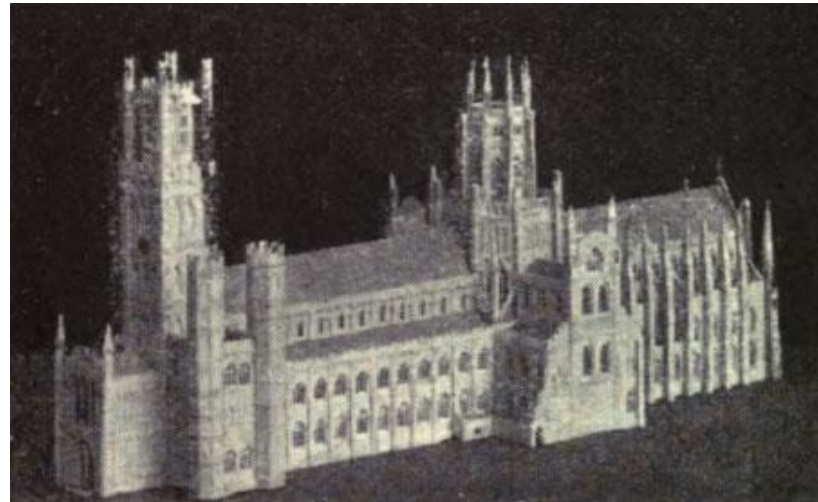
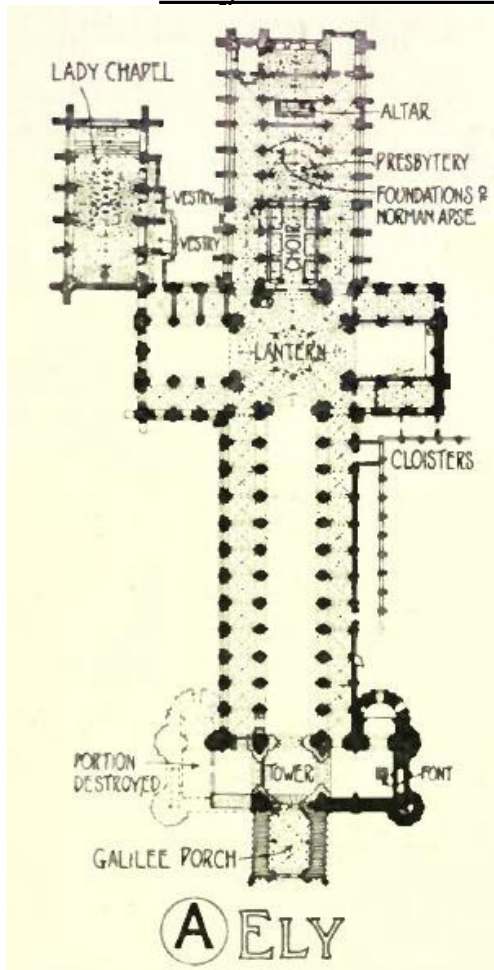
English Gothic

- Salisbury Cathedral, Salisbury:



English Gothic

- Ely Cathedral, Cambridgeshire:



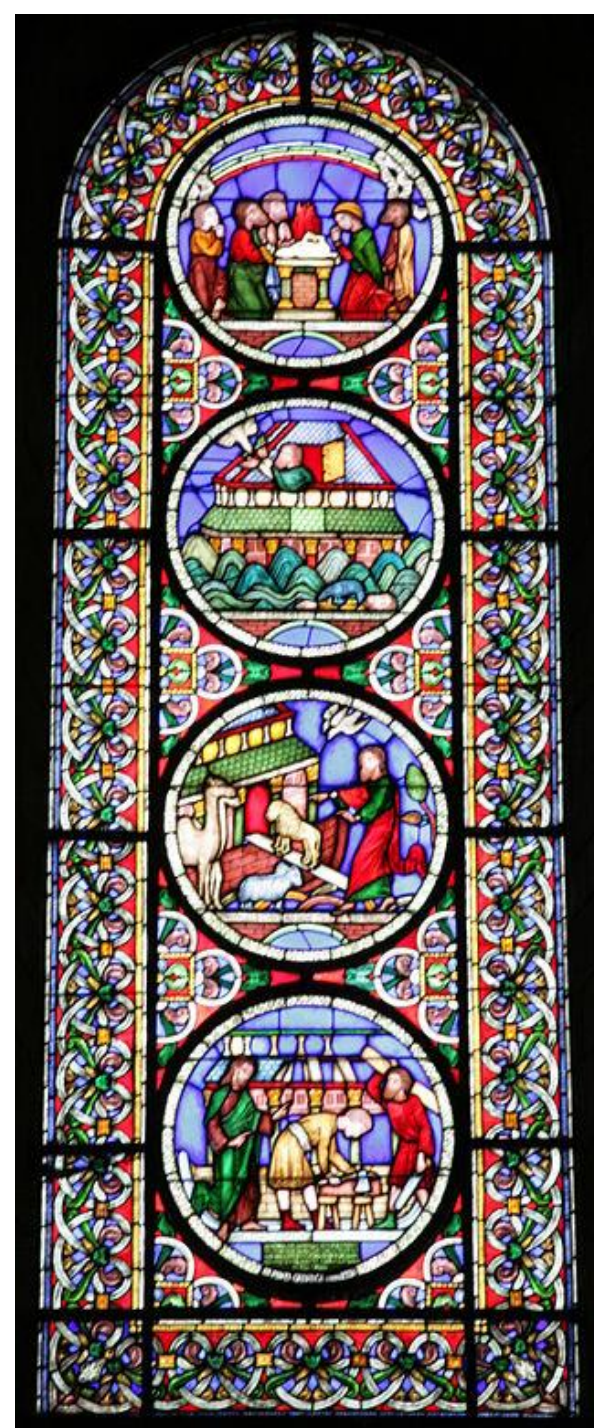
English Gothic

- Ely Cathedral, Cambridgeshire:



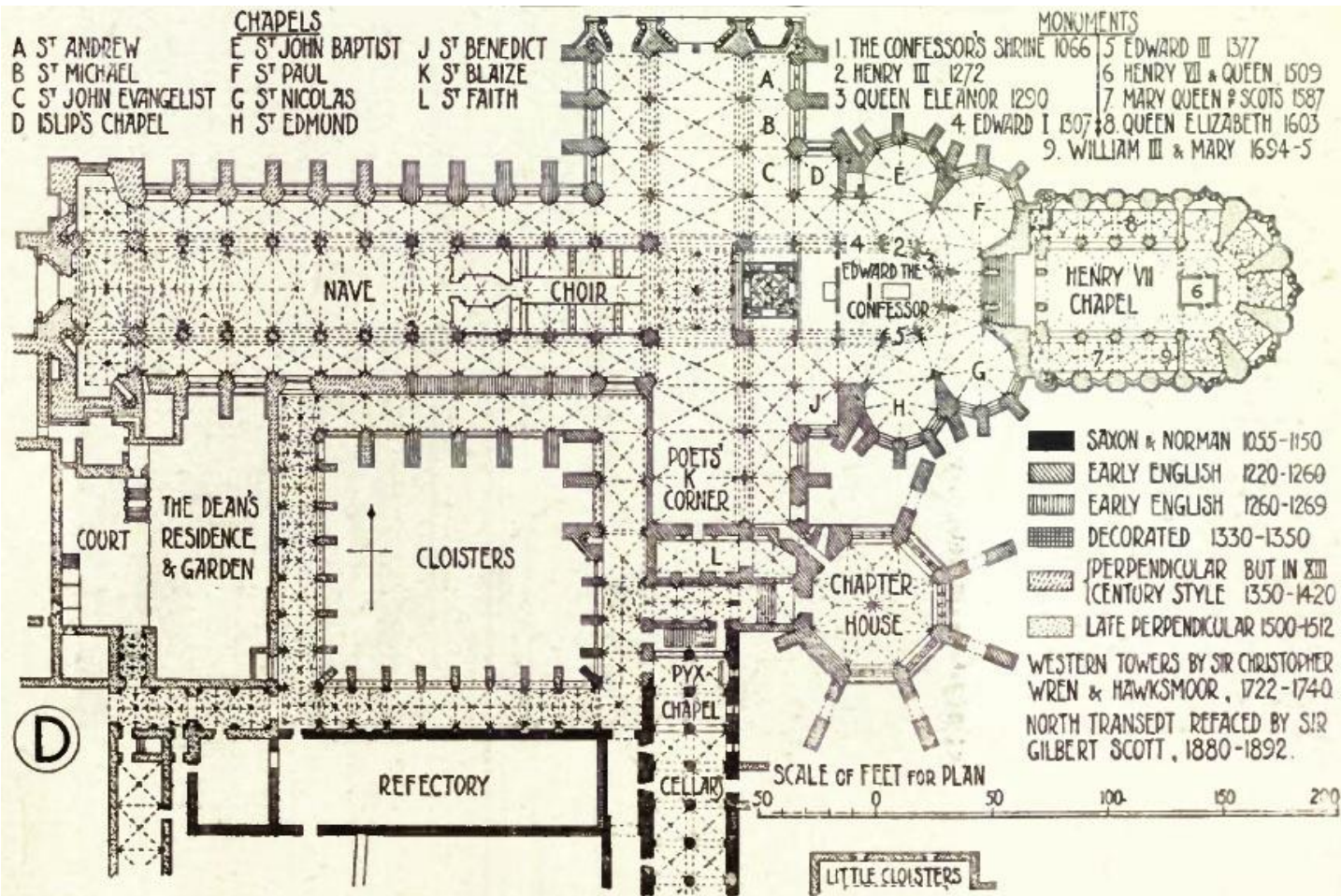
English Gothic

- Ely Cathedral, Cambridgeshire:



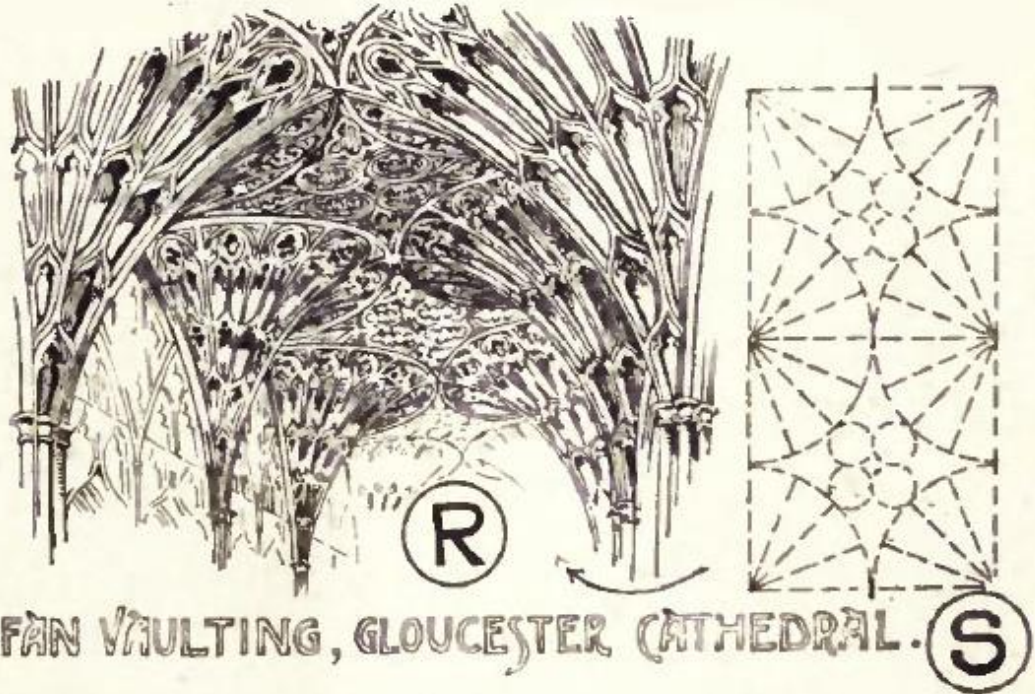
English Gothic

- Westminster Abbey, London:



English Gothic

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English Gothic

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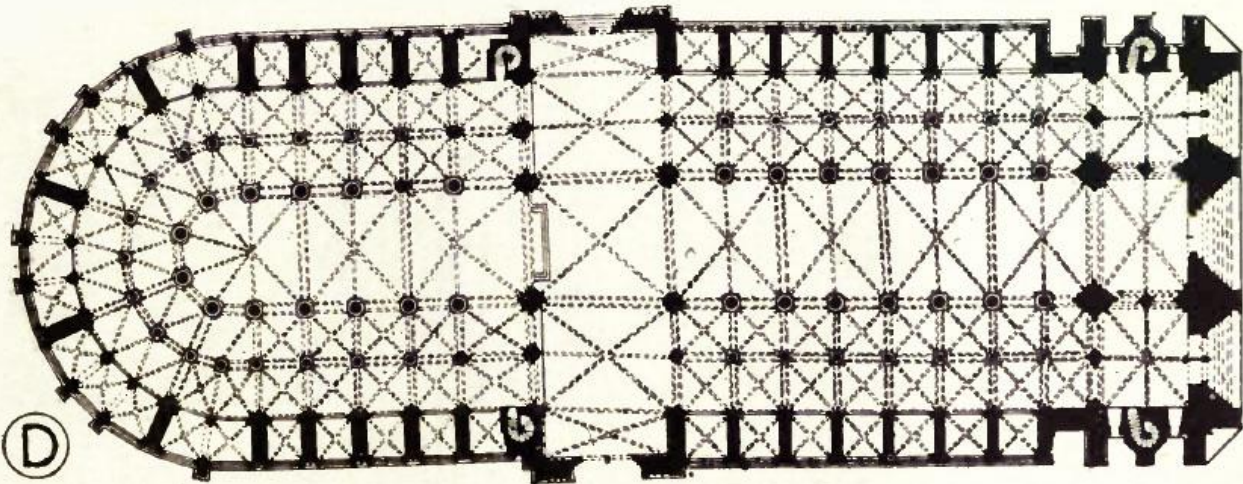


French Gothic

- French Gothic emphasized on verticality.
- The roofs were high pitched, steep, and had numerous spires.
- The transepts' projections were slight, sometimes neglected totally.
- They had several side chapels.
- Usually there were two towers on western elevation, the most important.
- Openings were much larger than in England, and in deeper recesses.
- Early columns were circular, which led to difficulties with ribs' joints.
- They gave a lot of attention to sculptures of gargoyles.

French Gothic

- Notre-Dame Cathedral, Paris:



French Gothic

- Notre-Dame Cathedral, Paris:



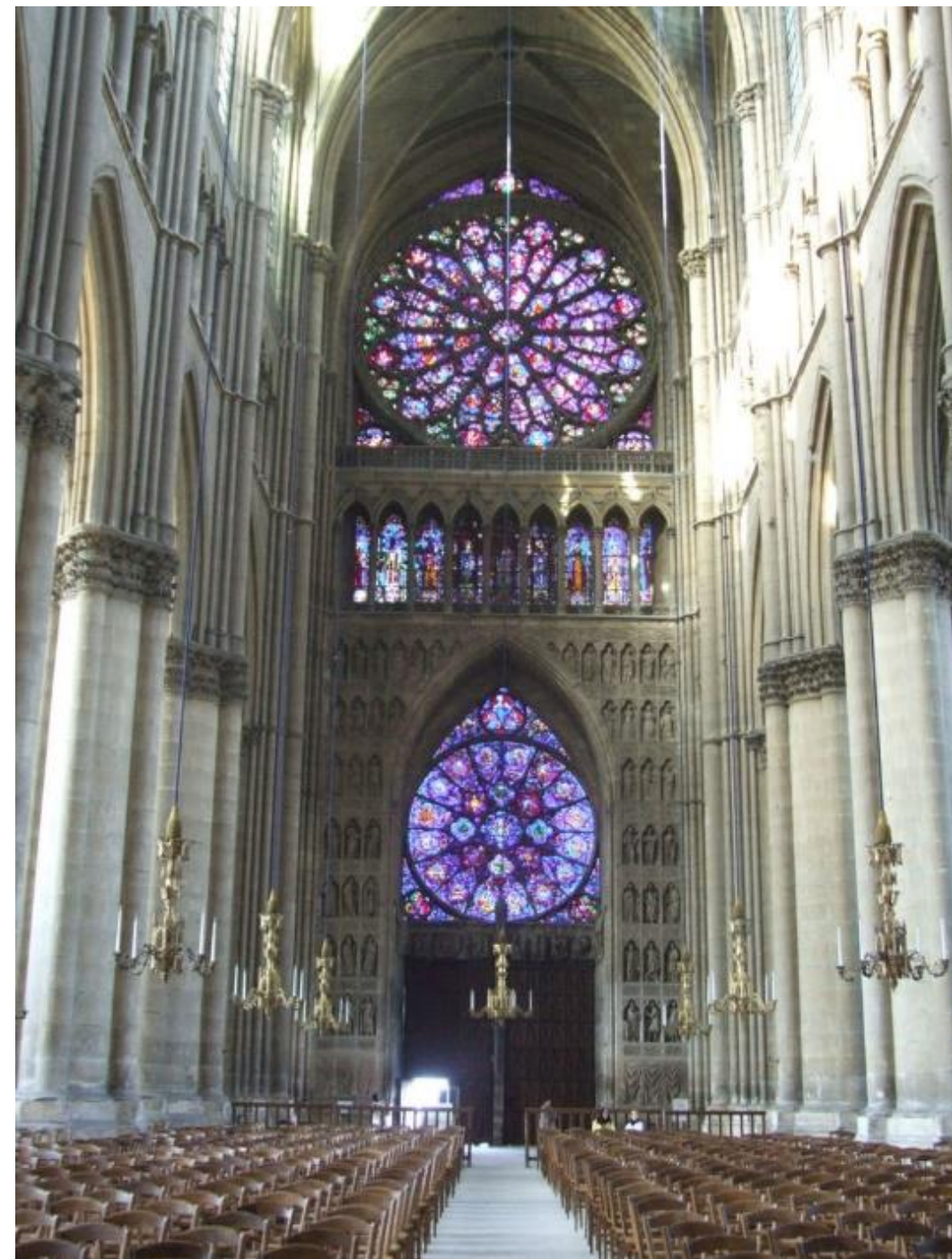
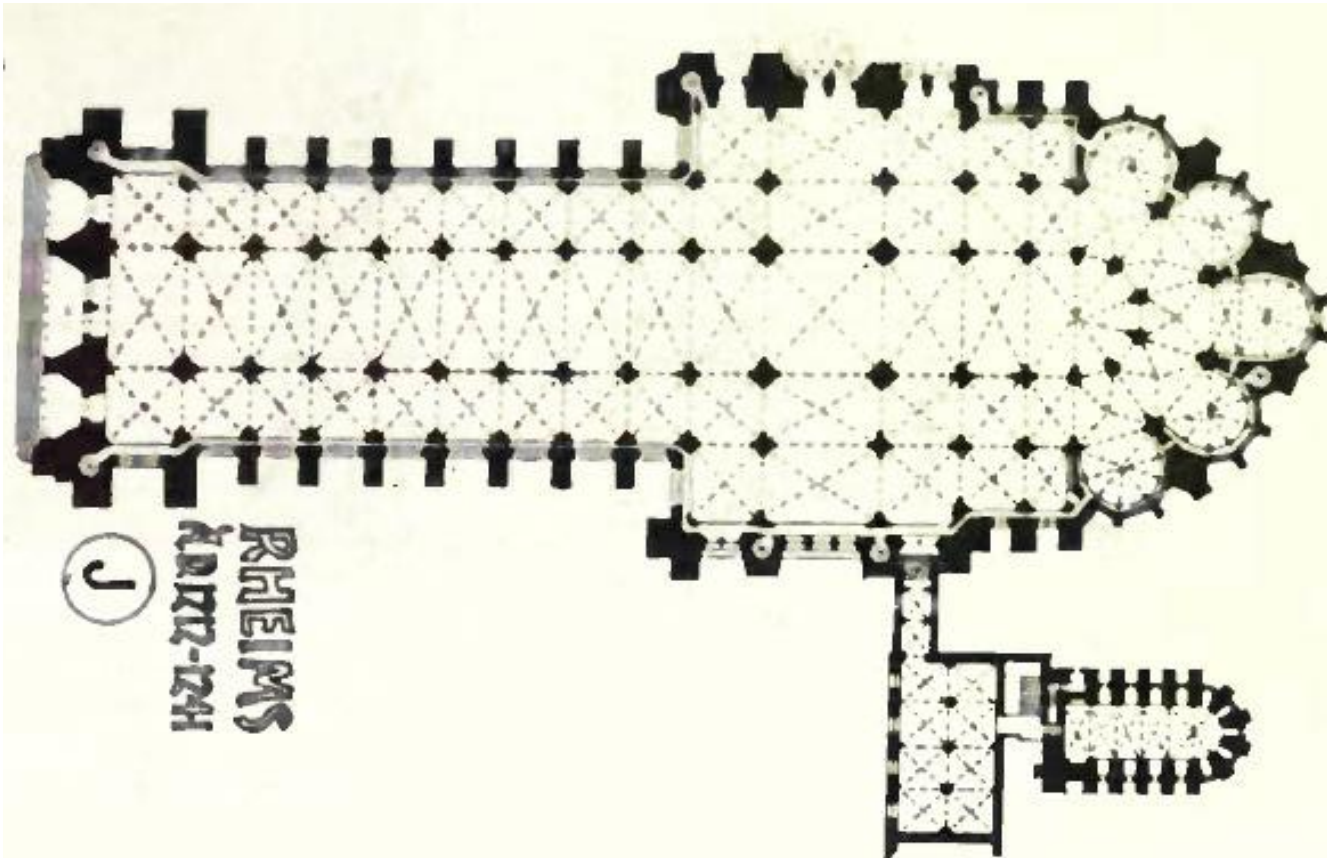
French Gothic

- Reims Cathedral, Reims:



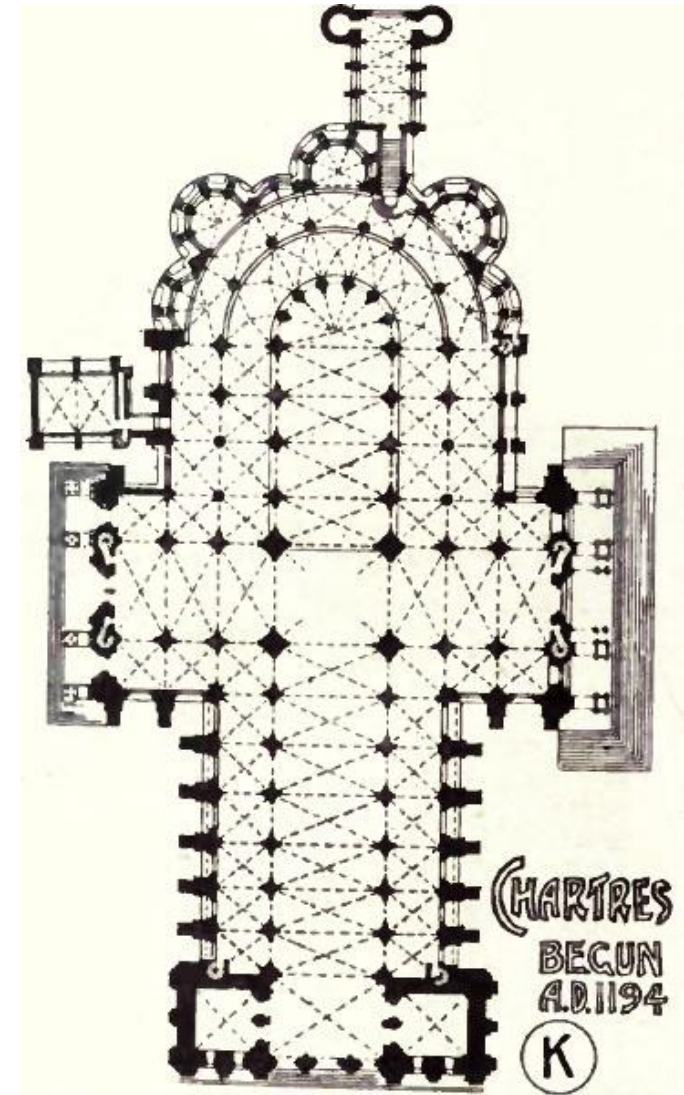
French Gothic

- Reims Cathedral, Reims:



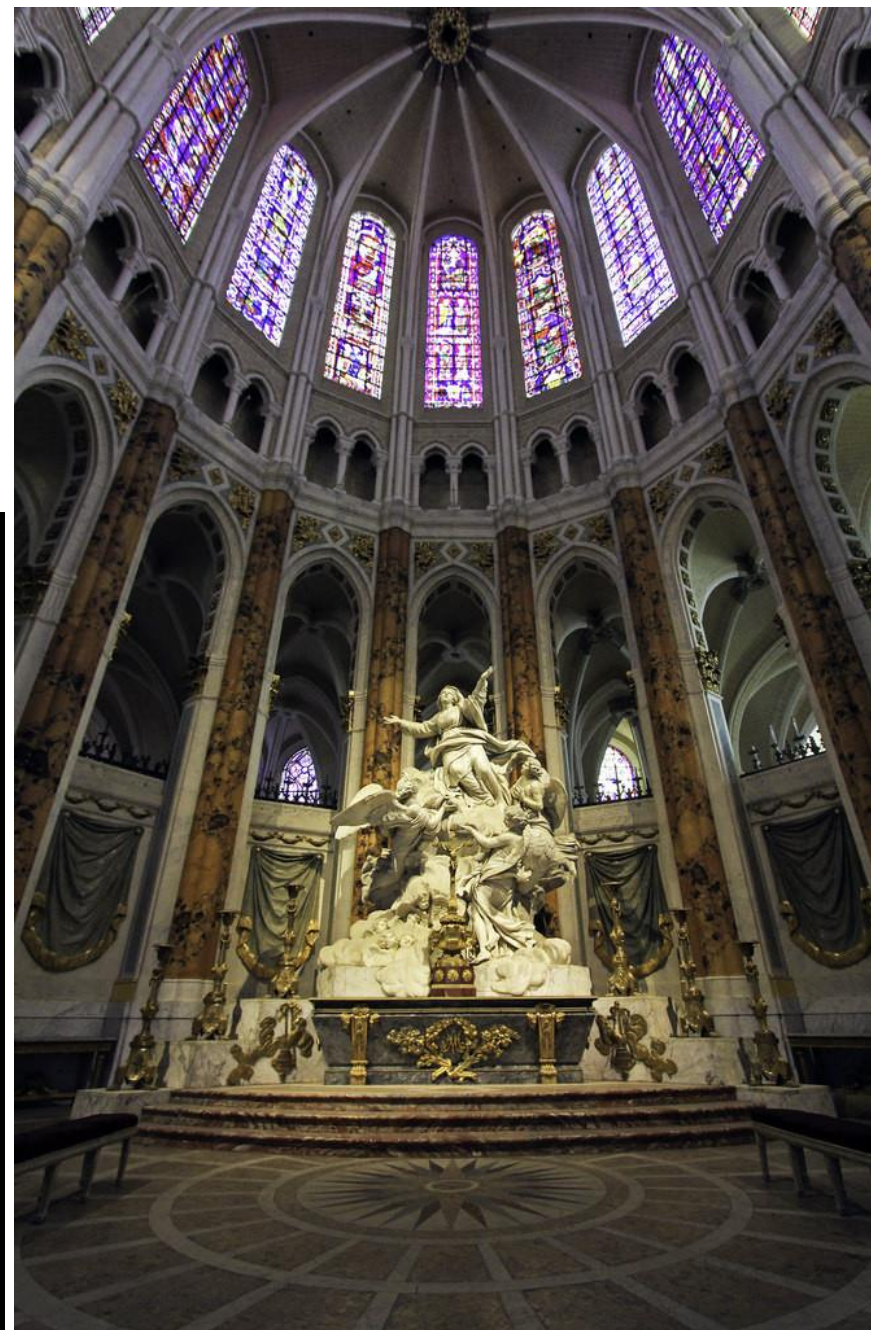
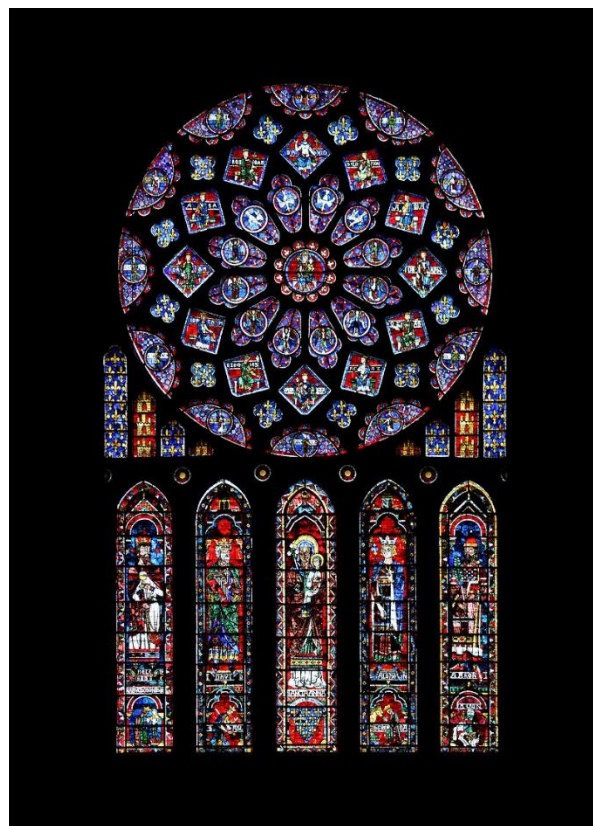
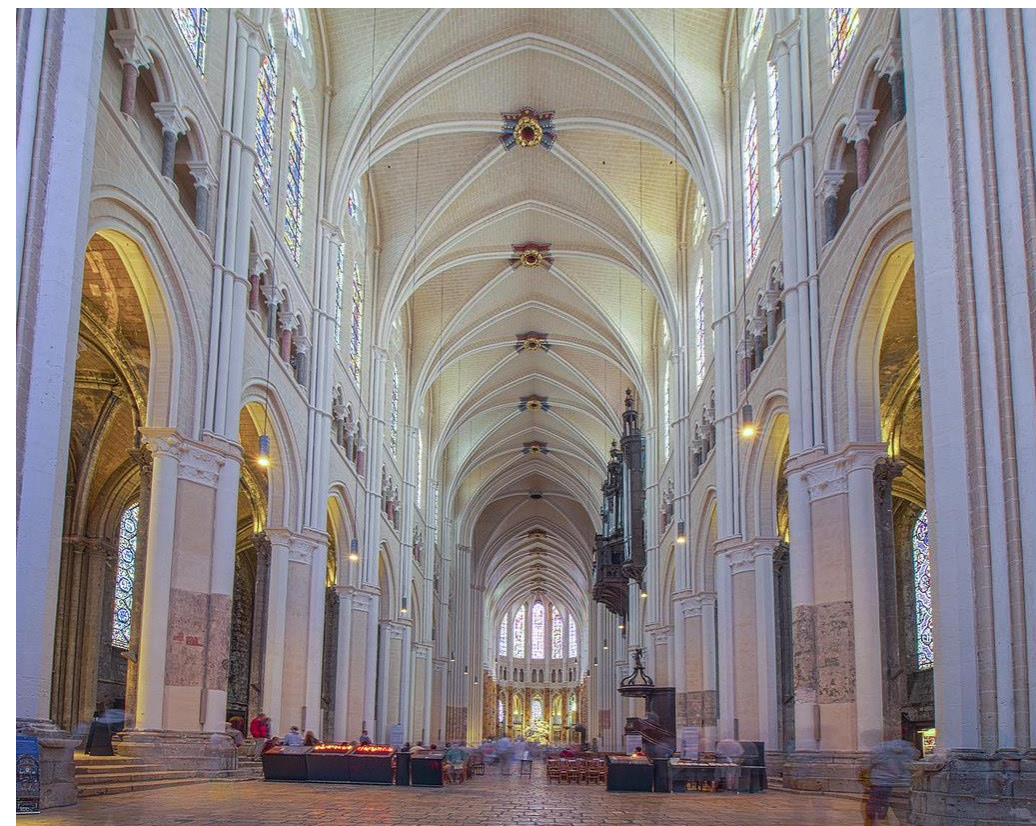
French Gothic

- Chartres Cathedral, Chartres:



French Gothic

- Chartres Cathedral, Chartres:

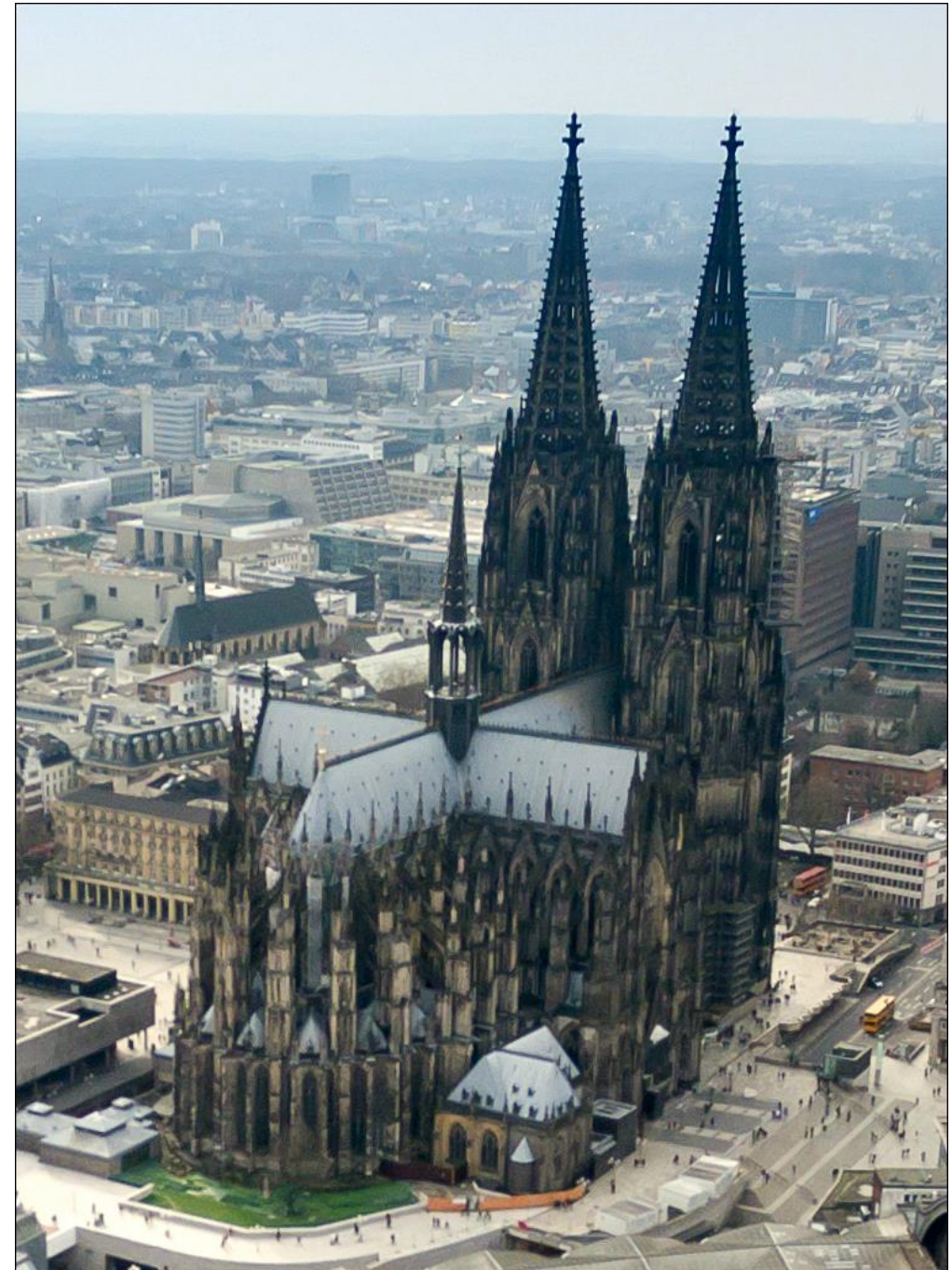
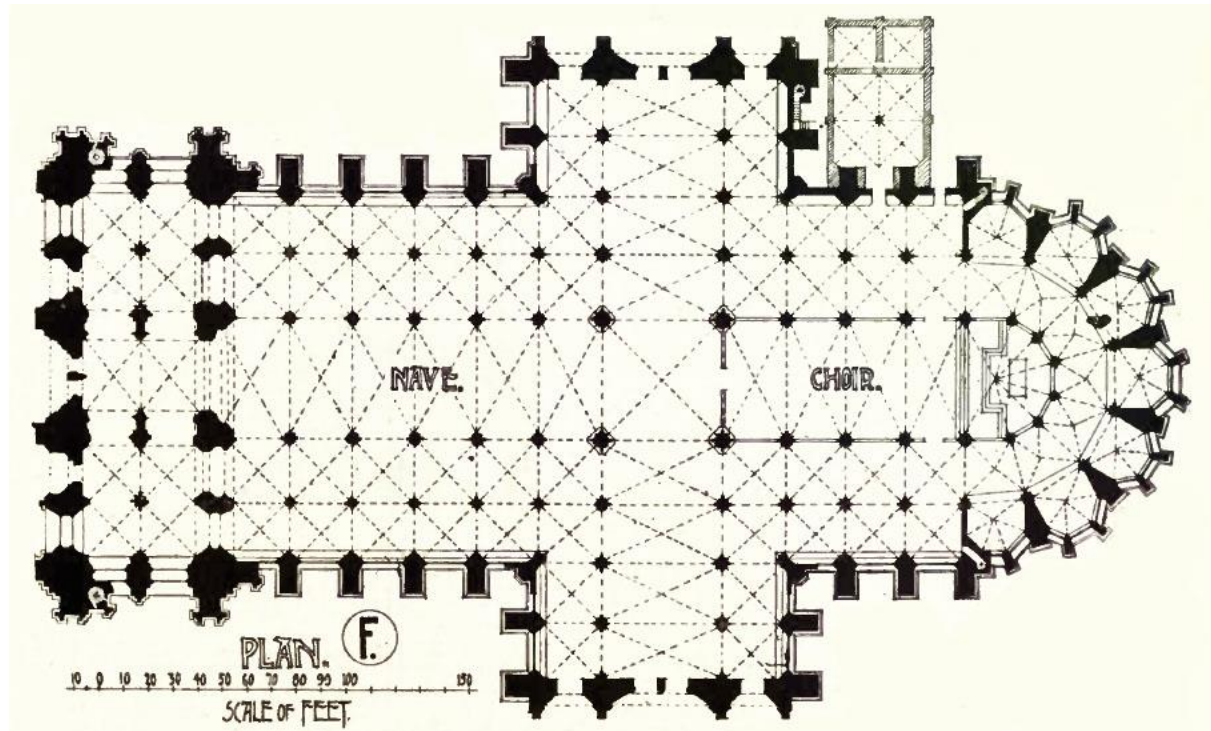


German Gothic

- The German Gothic was imported directly from France, and did not evolve naturally from the Romanesque.
- The German Romanesque buildings were already quite monumental, delaying the appearance of Gothic architecture till the 13th century.
- Most of the features were from the French Gothic, and sometimes an English feature would be used, like one central tower instead of two.
- Special German features include the roofing of the nave and aisles with one single roof, because their heights were almost equal.
- For decoration, there was an emphasis on plants and trees.

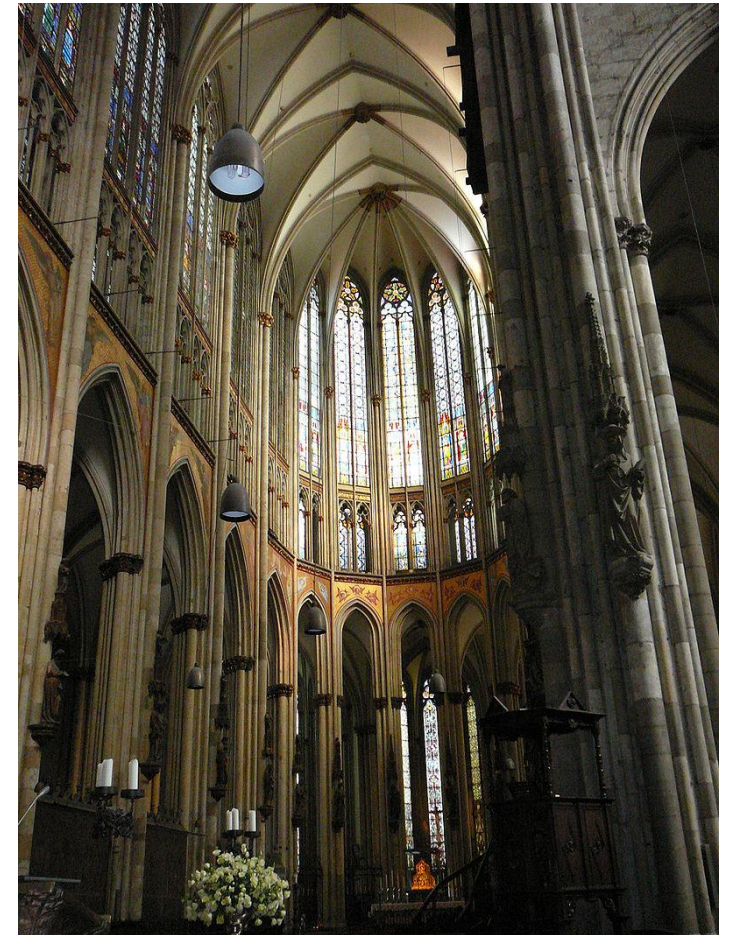
German Gothic

- Cologne Cathedral, Cologne:



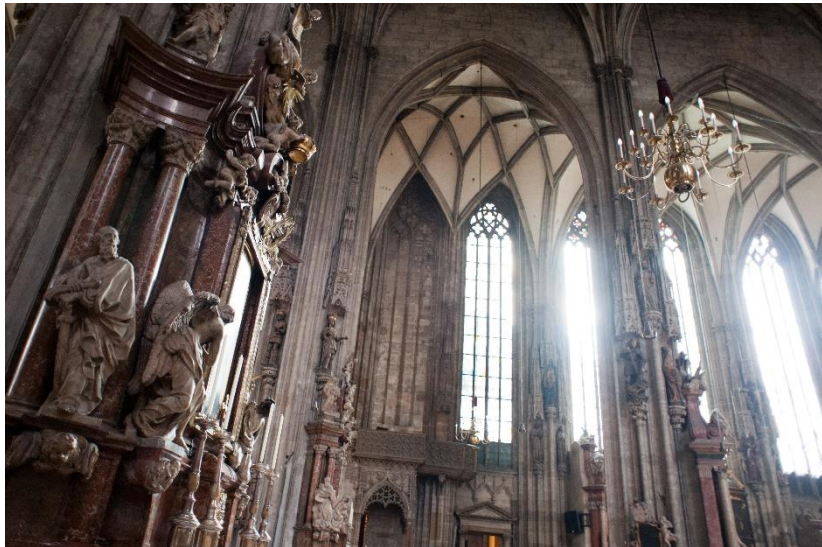
German Gothic

- Cologne Cathedral, Cologne:



German Gothic

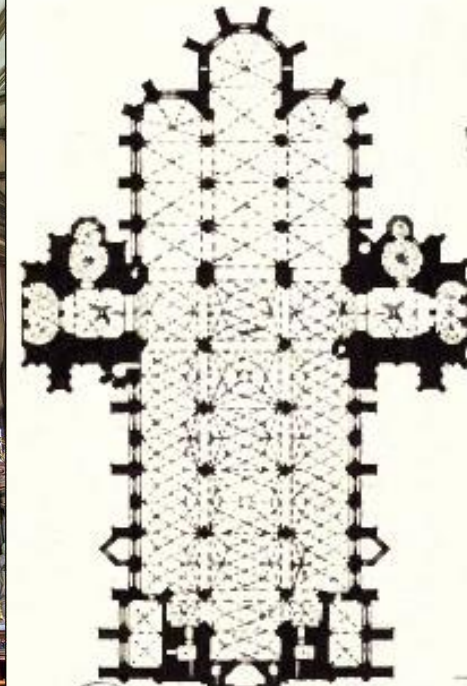
- S. Stephen Cathedral, Vienna:



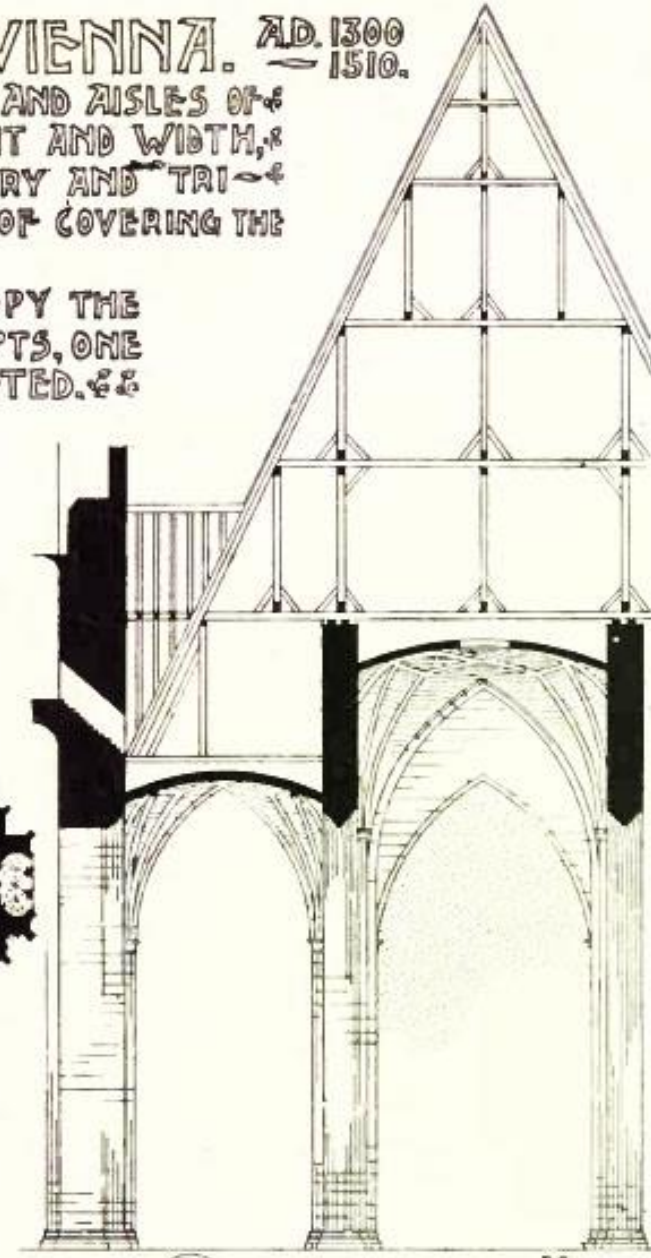
ST. STEPHEN, VIENNA. AD. 1300 — 1510.

NOTICABLE FOR NAVE AND AISLES OF NEARLY EQUAL HEIGHT AND WIDTH, ABSENCE OF CLERESTORY AND TRIFORIUM AND ONE ROOF COVERING THE WHOLE.

TOWER PORCHES OCCUPY THE POSITION OF TRANSEPTS, ONE ONLY BEING COMPLETED.



(A) PLAN.



(B) PART SECTION.

Italian Gothic

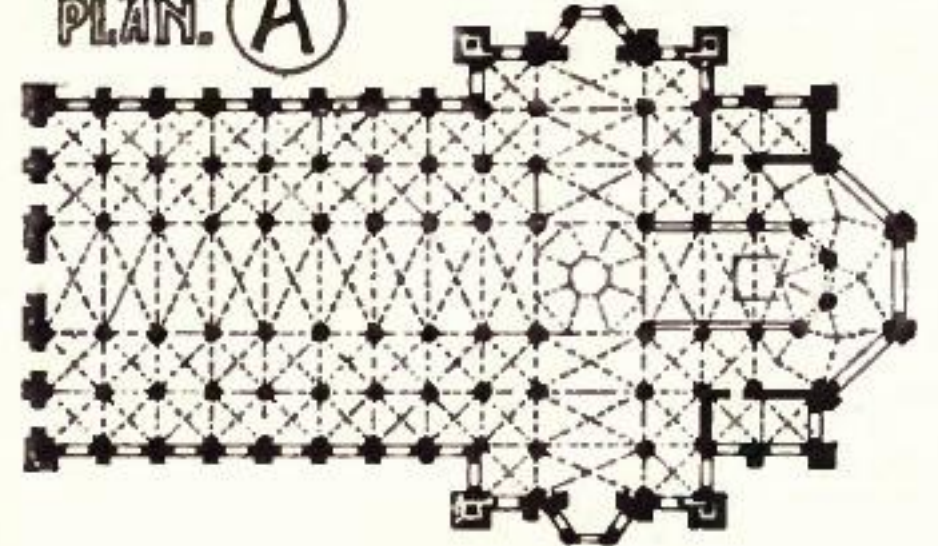
- The Italians never liked Gothic, and didn't give it a chance to develop.
- Geography's influence is clear, colored Italian marble was used, and the daily sunshine led to small openings.
- The Roman spirit is obvious, through creating one great central space.
- Roman elements were used usually, like heads of windows and keystones.
- The exterior elevations were mostly flat, since the buttresses were attached to the walls.

Italian Gothic

- Milan Cathedral, Milan:



PLAN. (A)



Italian Gothic

- Milan Cathedral, Milan:

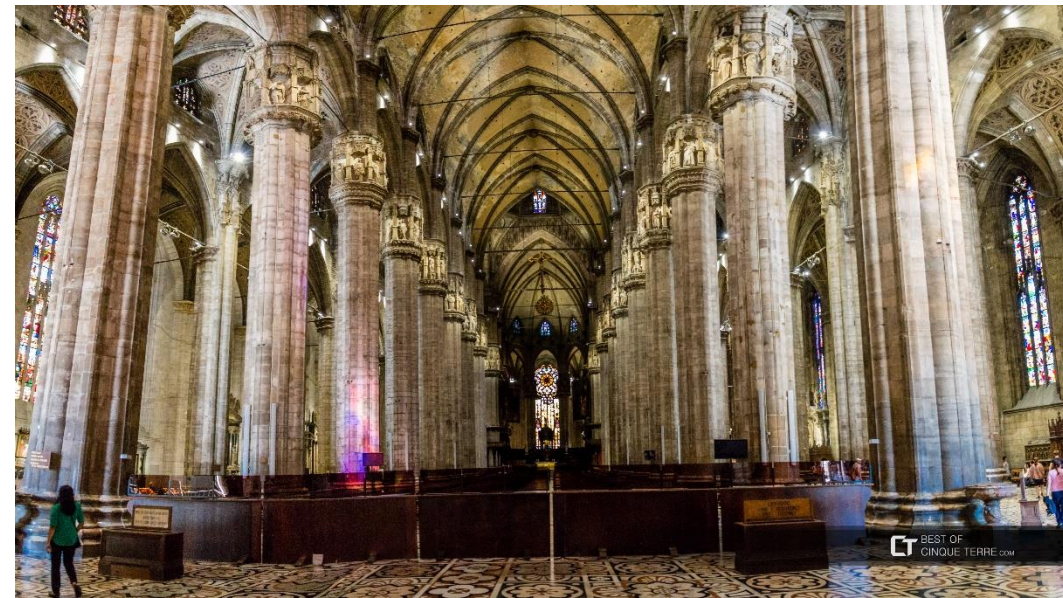
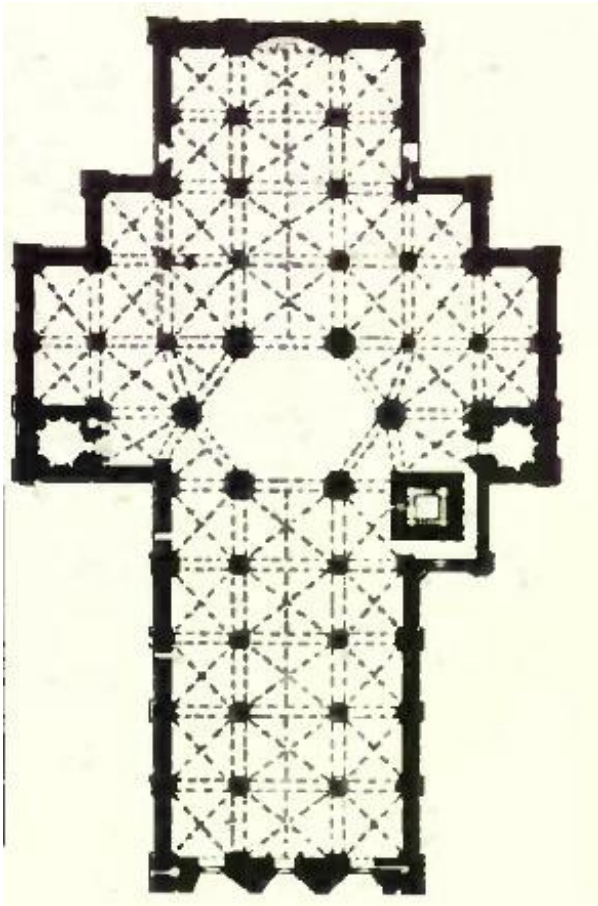


Photo by: Lorenzoclick / Flickr

Italian Gothic

- Siena Cathedral, Siena:



Italian Gothic

- Siena Cathedral, Siena:

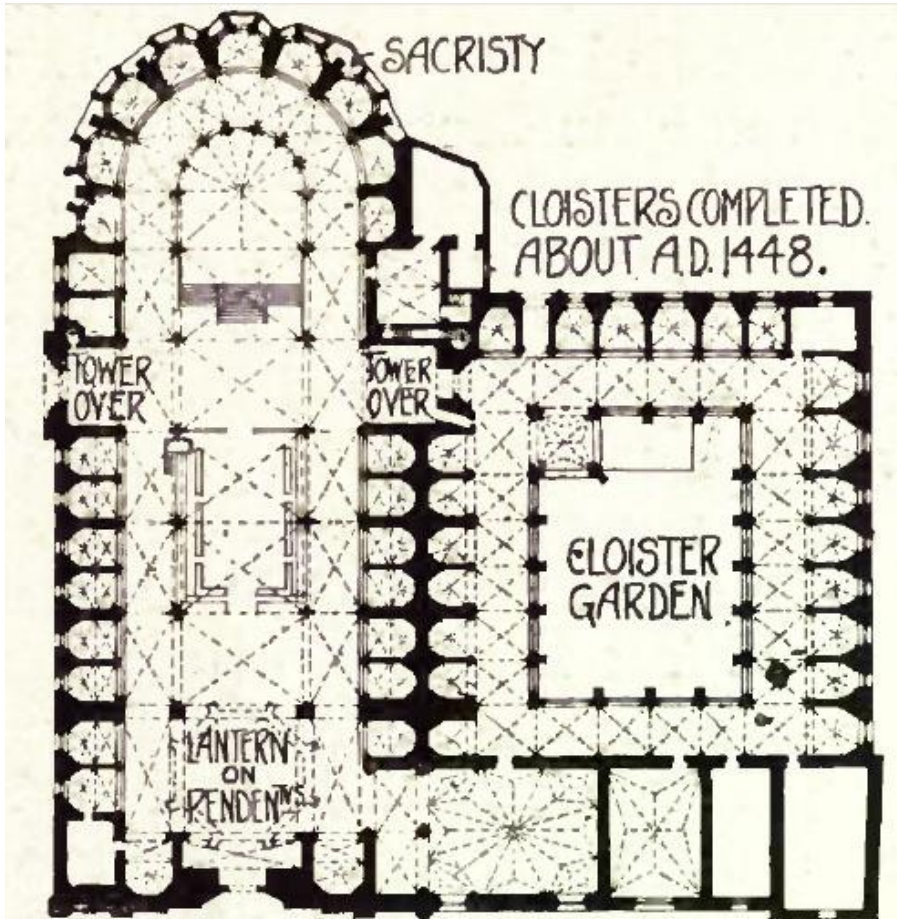


Spanish Gothic

- The strongest influence on the Spanish Gothic is Islamic Spanish architecture, since the Muslims were present in the Iberian peninsula till the end of the 15th century.
- Many Moorish elements were present, like the decoration, the horseshoe arches and the distinctive Islamic Minarets.
- They basically copied the French cathedrals, with some alterations.
- The exterior, like in Italy are flat.
- Horizontal lines are obvious and clear.
- Plans were wide and short, and had numerous chapels.
- They created the flat arches for vaulting.
- Some Spanish churches transformed the aisles to closed chapels.

Spanish Gothic

- Barcelona Cathedral, Barcelona:



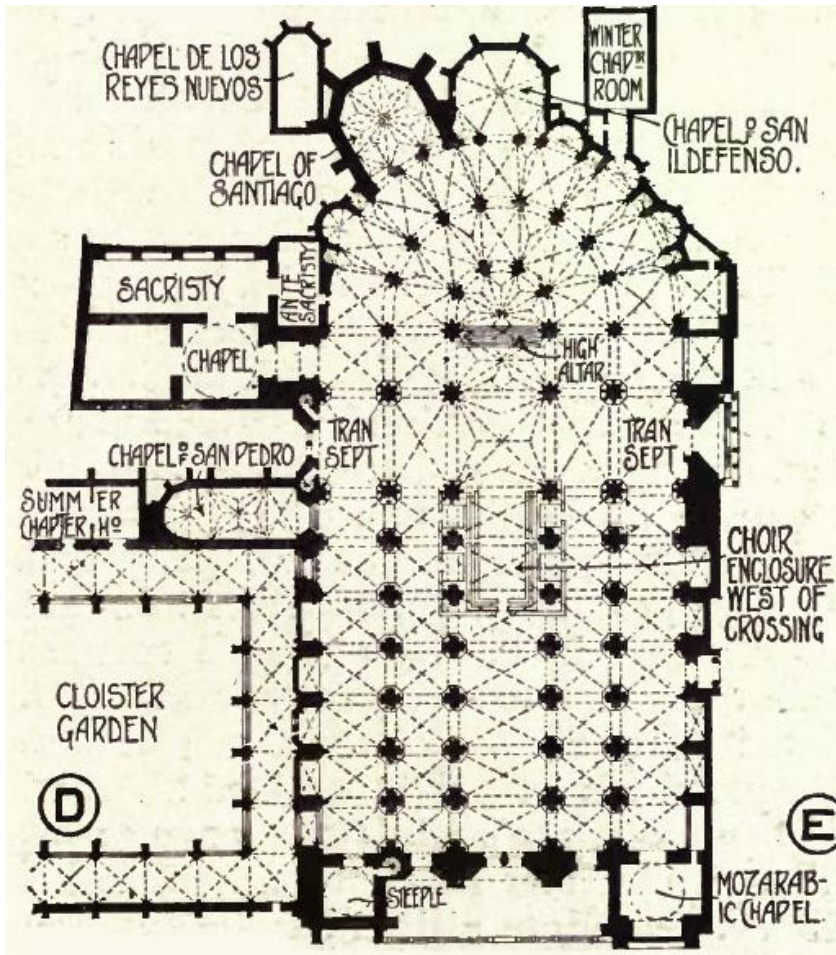
Spanish Gothic

- Barcelona Cathedral, Barcelona:



Spanish Gothic

- Toledo Cathedral, Toledo:



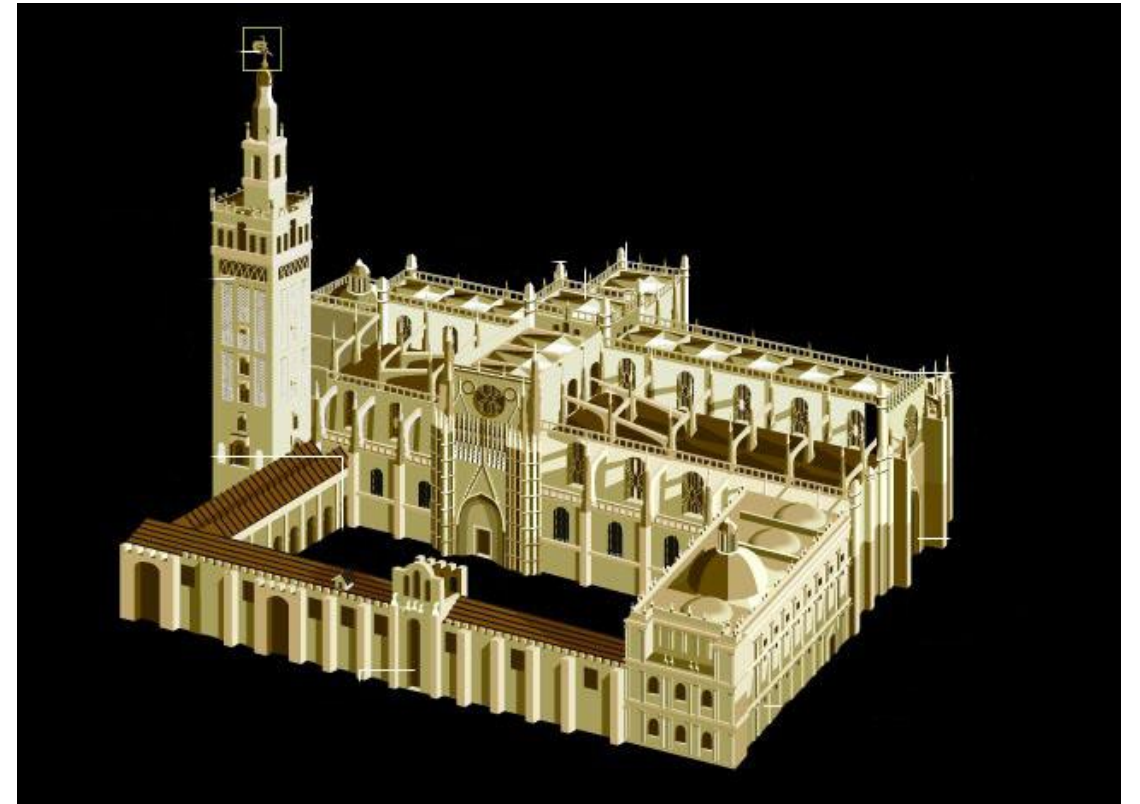
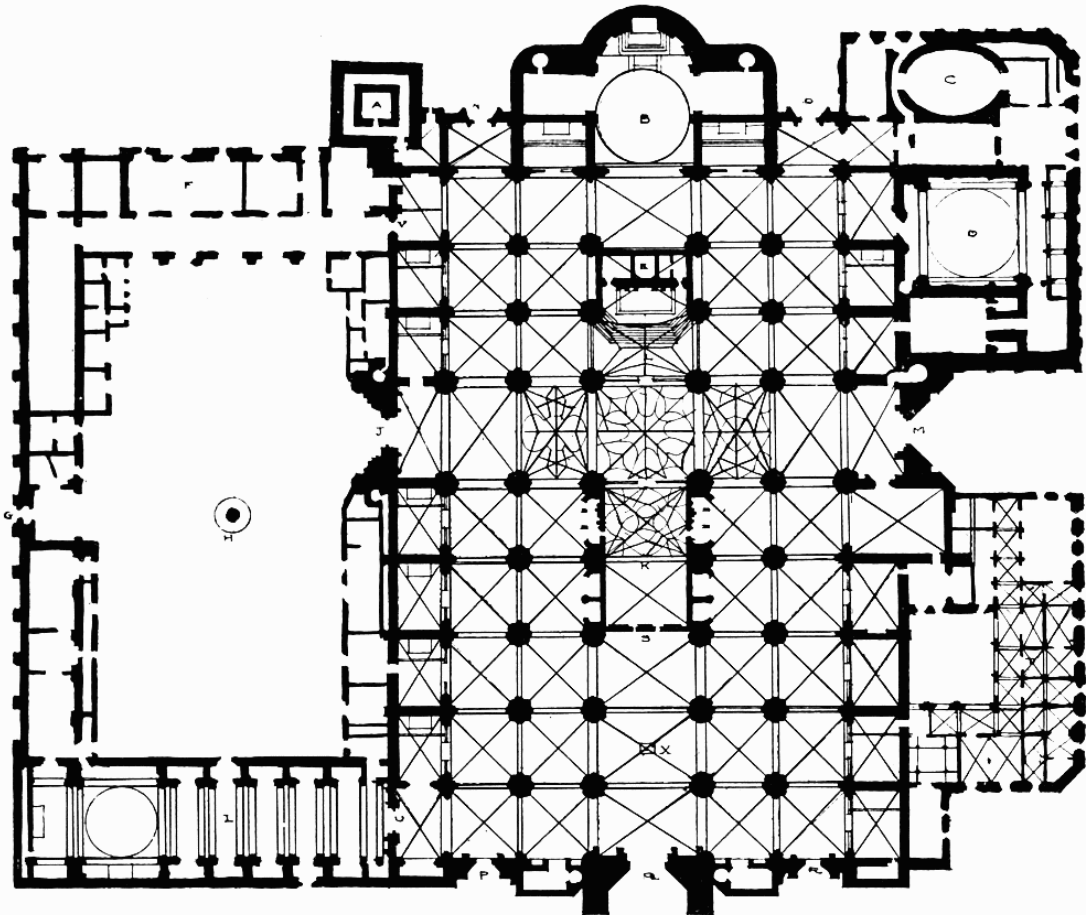
Spanish Gothic

- Toledo Cathedral, Toledo:



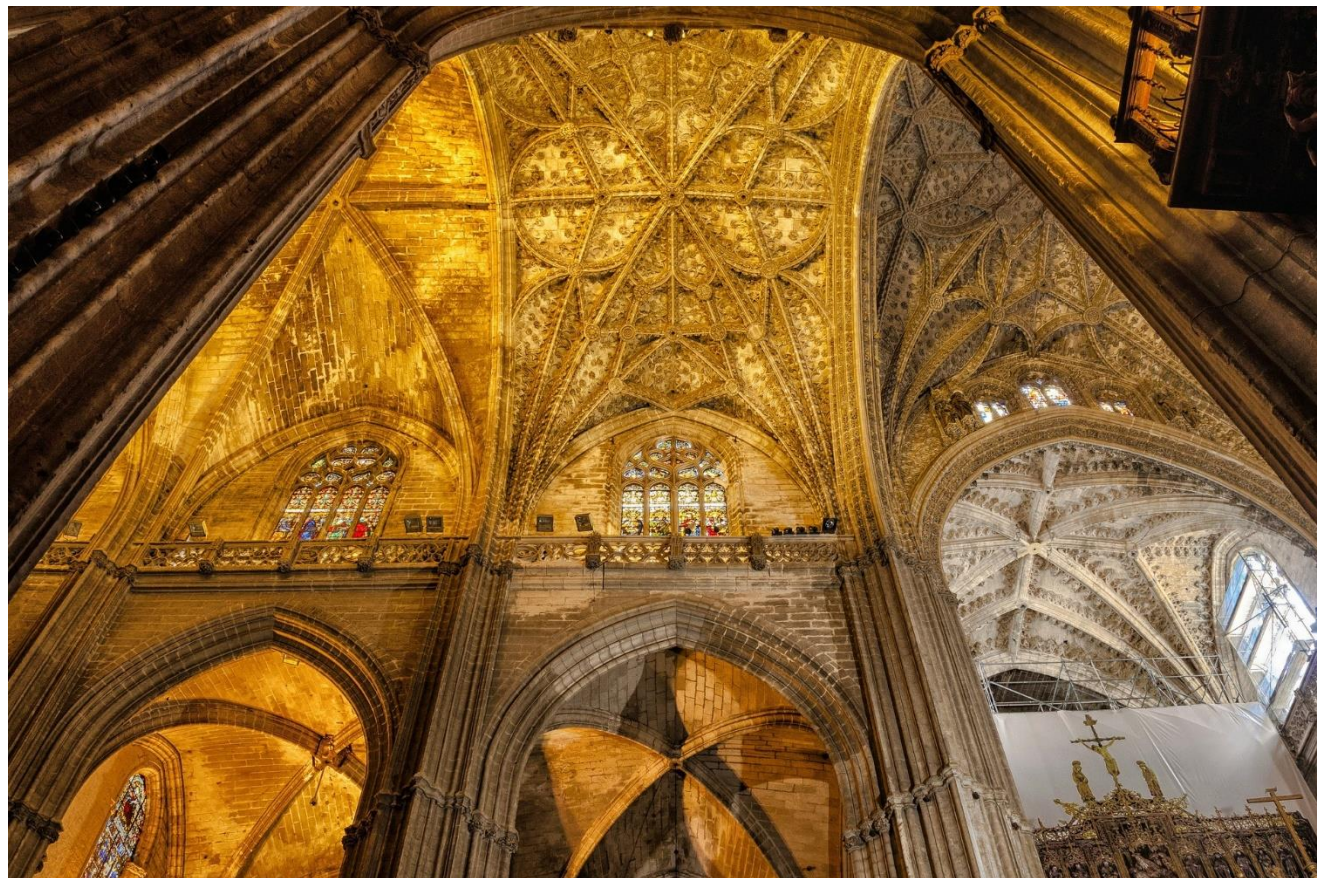
Spanish Gothic

- Seville Cathedral, Seville:



Spanish Gothic

- Seville Cathedral, Seville:



Gothic Architecture

- Gothic architecture dominated Europe for three centuries.
- It was received in different ways, but its innovation was never underestimated, which led to a very strong Gothic revival movement centuries later.
- What is also important to mention that the style was not used only for churches and cathedrals, but for many if not all the other civic buildings.