

**UNIVERSITY OF ABOUBEKR BELKAID TLEMCEN**

**FACULTY OF TECHNOLOGY**

**DEPARTEMENT OF ARCHITECTURE**

**ACADEMIC YEAR 2024/2025**

**1<sup>st</sup> Year Architecture**

**Subject title: Critical History Of Architecture**

**Course leader: Ms BENADLA-KDROUSSI Houda Wafâa**



# **MEDIEVAL AGES ARCHITECTURE**

## **PALAEOCRISTIAN - BYZANTINE\_ ROMANESQUE AND GOTHIC PERIODS**

ARCHITECTURE MÉDIÉVALE  
PÉRIODES PALÉOCHRÉTIENNE- BYZANTINE- ROMANE ET GOTHIQUE

**LECTURE 6**

The beginning of the Middle Ages is often characterized by a shift from the classical world of the Romans to a more **decentralized and fragmented political and social landscape**. Over time, the medieval period would witness the development **of feudalism (féodalisme)**, the establishment of **powerful kingdoms and empires**, the **expansion of Christianity**, and the **gradual emergence of new economic and social structures**.

## Introduction to The Middle ages

### Architectural periods

Medieval architecture emerged during the Middle Ages, a period generally spanning from the 5th to the 15th century. **From the fall of Rome in 476 AD (Fall of the Western Roman Empire ) to the conquest of Constantinople by the Ottomans in 1453 AD.**

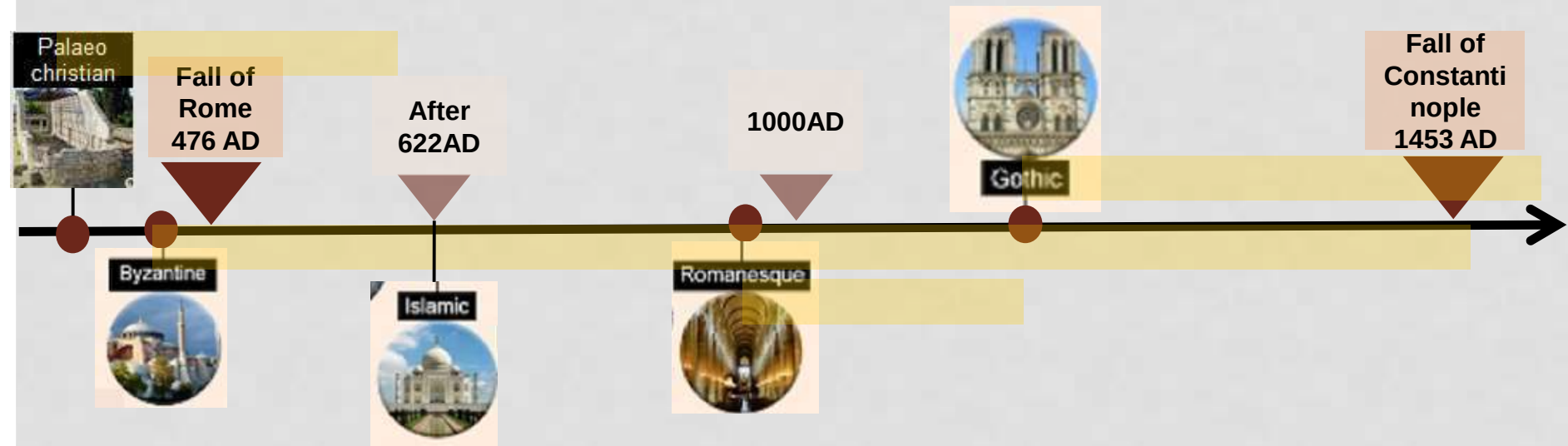
However, this period covers several architectural periods:

- **Palaeochristian (Late Antiquity - 6th century)**
- **Byzantine (4th century - 15th century)**
- **Romanesque (10th century - 12th century):**
- **Gothic (12th century - 16th century)**

#### La hiérarchie sociale au début du haut Moyen Âge



# Introduction to The Middle ages **Timeline**



# PALAEOCRISTIAN ARCHITECTURE

Architecture paléochrétienne



# Palaeochristian Architecture Feature's

## Early Christian Churches

Palaeochristian architecture, also known as Early Christian architecture, emerged during the early Christian period, spanning from the 1st to the 6th century (537 AD \_ Building of Hagia Sophia).

### Features of this architectural period

**Basilicas:** Religious buildings were primarily basilicas, which were rectangular halls with a central nave higher than the side aisles. These spaces were often used for liturgical assemblies and ceremonies.

**Longitudinality**

**Colonnades**

**Wooden Roofs**

**Simple Decorations:** moderate use of mosaics and frescoes. Geometric patterns and early Christian symbols were frequently employed.

**Apse:** a semi-circular apse at the end opposite the entrance, where the **altar** (**autel**) was located. These apses were often richly decorated.

**Roman Influences:** many techniques and styles from classical Roman architecture were adopted to Christian liturgical needs.



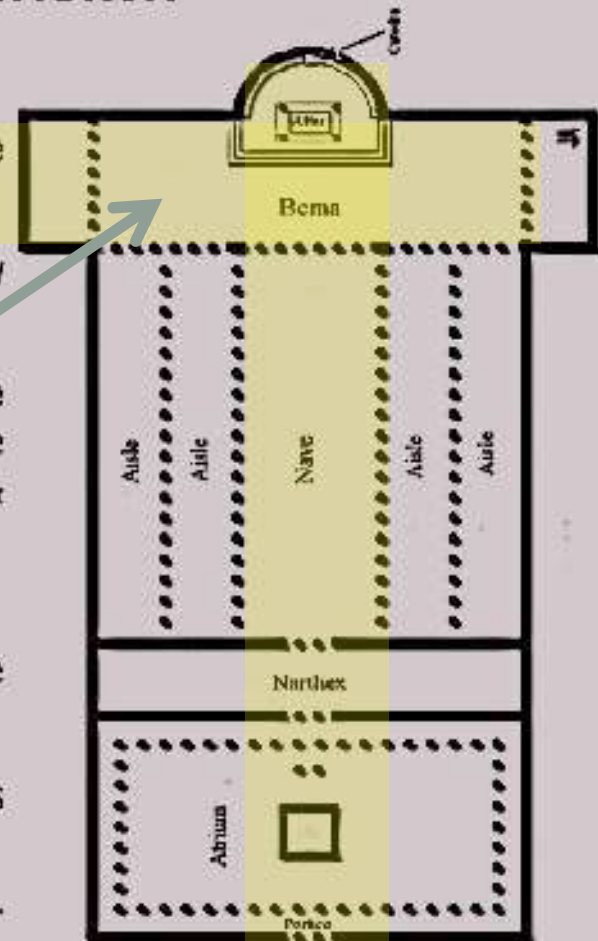
# Architectural Features

## Early Christian Churches

### The basilical Plan

#### A TYPICAL BASILICAN CHURCH

- ❖ Commonest form of the early church.
- ❖ Unlike the earlier Roman phase, the interiors were given more importance than exterior.
- ❖ Rectangular hall, timber-roofed with coffers & richly gilded ceiling (hiding the roof truss) on nave.
- ❖ Usually with one or two aisles to each side of the central nave separated by rows of rustic marble columns, sometimes carrying flat entablatures & sometimes, rows of arches.
- ❖ The width of aisles was half that of the central nave.
- ❖ Apse at one end facing the principal entrances at the other end.
- ❖ Bema / Transept – a raised platform where altar was placed & from where the clergy officiated.
- ❖ A courtyard (atrium) having a central fountain for ablutions & surrounded by colonnaded ambulatory.



Plan of a typical EC Basilica

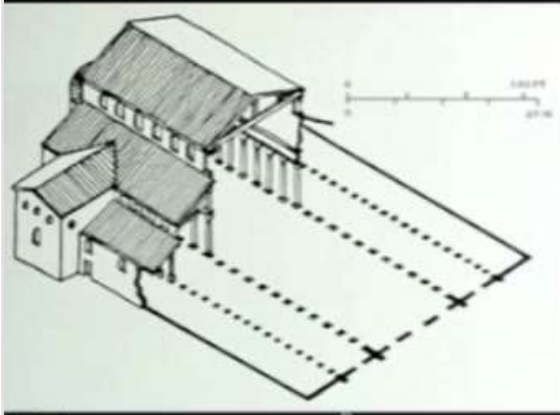
# Palaeochristian Architecture

## Early Christian Churches

### Giovanni in Laterano, Italy

San Giovanni in Laterano, 313

Basilica  
Clerestory windows  
Nave  
Aisle  
Transept  
Wall  
Punched window

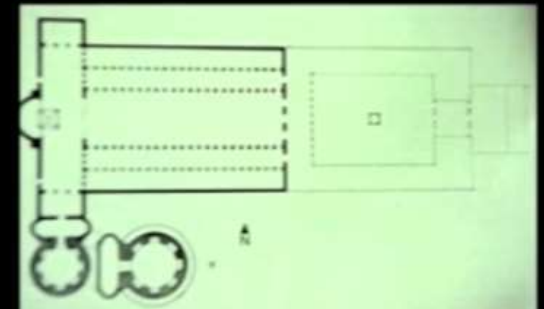


Old St Peter's, 319+

Basilica  
Clerestory windows  
Nave  
Aisle  
Transcept  
Flat Roof  
Truss  
Apse



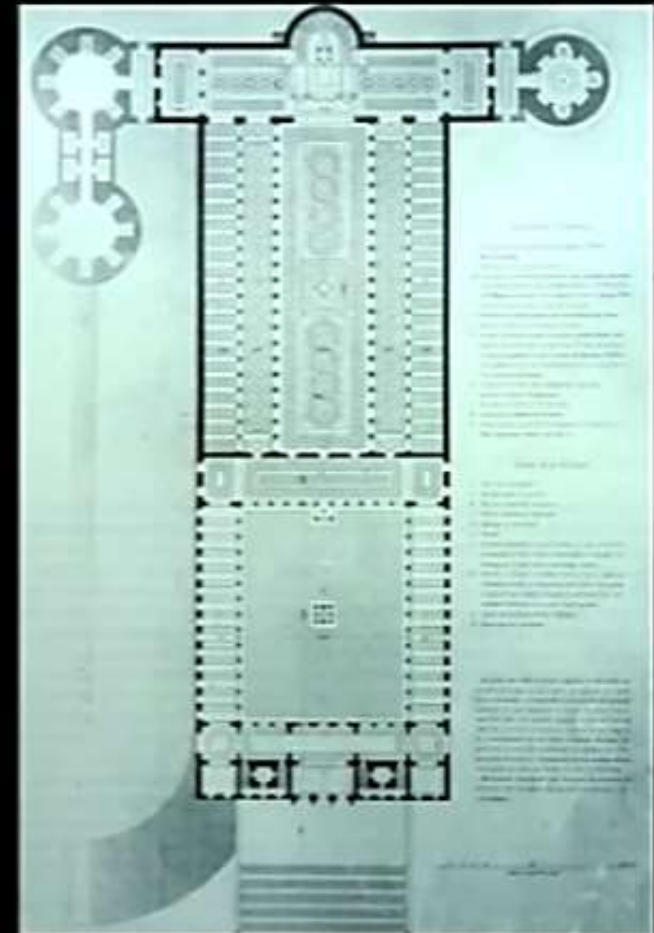
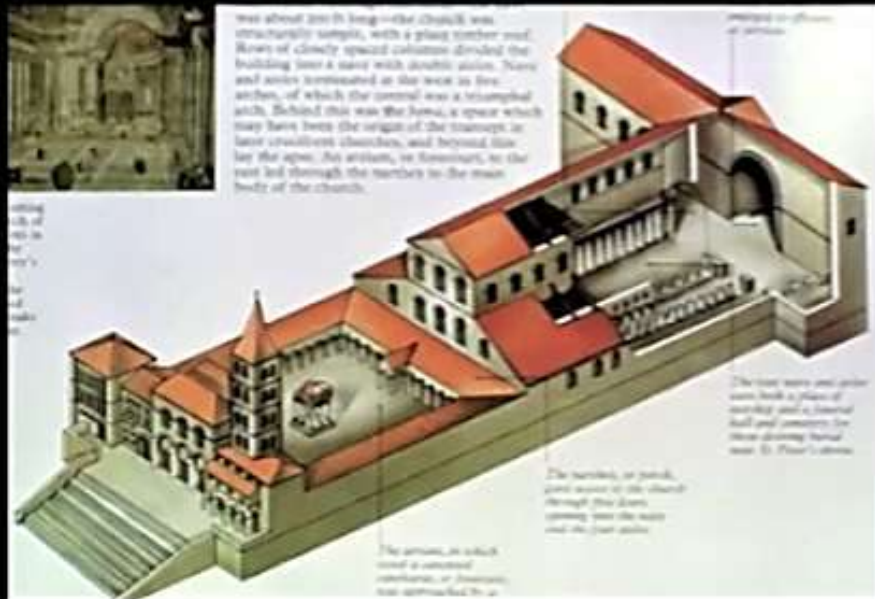
Martyria  
Courtyard



# Palaeochristian Architecture

## Famous Early Christian Churches

### Old St Peter's





# Palaeochristian Architecture

## Conclusion

Palaeochristian architecture established fundamental principles that influenced the later development of medieval Christian architecture, including the transition to the Romanesque style.

Early Christian churches were simple yet significant worship spaces, marking the transition between Roman architecture and subsequent medieval developments.

# BYZANTINE ARCHITECTURE

Architecture byzantine

Centre de la ville de  
Constantinople



# Introduction to the The Byzantine Architecture

## Introduction



Constantinople (Istanbul)

- By the end of the 5th century AD, Rome had completely declined
- It had been sacked twice and was then under occupation
- Its influence was significantly reduced and the Impetus for architectural innovation shifted to the Byzantine Empire
- This shift also marks the movement from early Christian civilization to the Byzantine civilization
- Under the Byzantine Emperor Justinian, the Byzantine style of architecture evolved
- His interest in church building led to the discovery of the groin vault and the evolution of the Byzantine style



## Context of Byzantine Architecture

**Rise of Germanic Kingdoms:** As the Western Roman Empire disintegrated, various Germanic kingdoms emerged in its former territories. The Visigoths established a kingdom in Spain and southern Gaul, the Vandals in North Africa, and the Ostrogoths in Italy.

**Byzantine Empire:** The Eastern Roman Empire, often referred to as the Byzantine Empire, continued to exist for several centuries. Its capital, Constantinople, remained a center of culture, trade, and political power.

**Decline of Urban Centers:** The collapse of the Roman Empire resulted in the decline of urban centers, and trade networks contracted. Many people moved away from cities to rural areas seeking stability and safety.

**Spread of Christianity:** Christianity, which had been officially recognized in the later years of the Roman Empire, played a significant role in the cultural and religious landscape of the Middle Ages. The Church became a stabilizing force and a key institution in medieval society.



Byzantine architecture emerged and flourished during the Byzantine Empire, spanning from **330 CE\_ foundation of Constantinople\_ until the fall of Constantinople in 1453.** But the Byzantine style really begins with the construction of **Saint Sophia** as the prototype of Byzantine churches in **537 CE.**

# Key dates of The Byzantine Empire

**313** conversion of Constantine to christianity. He authorizes freedom of worship.

## Byzantine Empire - Early Period Timeline:

- **330:** Emperor Constantine founds a new capital of the Roman Empire at the Greek town of Byzantium, renaming the city Constantinople after himself
- **395:** Death of Emperor Theodosius – Empire permanently split in two halves. Constantinople is capital of the Eastern Roman Empire
- **527-565:** reign of Emperor Justinian I. Greatest expansion of Byzantine Empire
- **1453:** Fall of Byzantine Empire



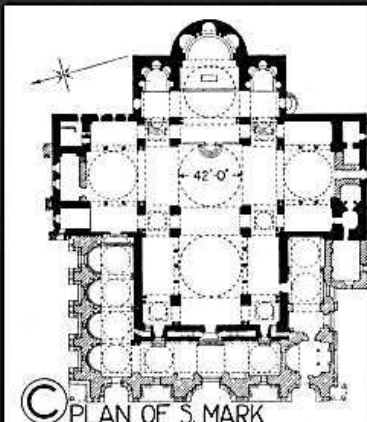


# Main characteristics of The Byzantine Architecture

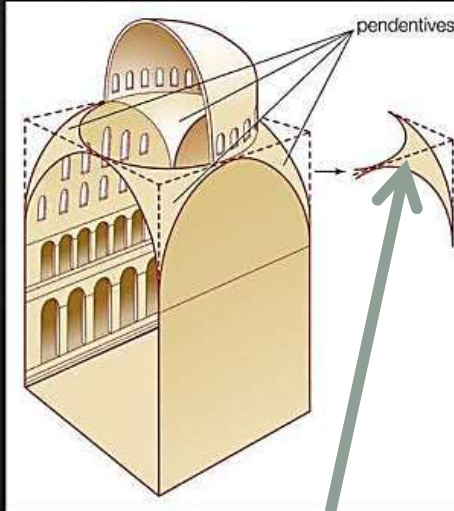
## Central plan on greek cross

## Domes on squinches and pendentives

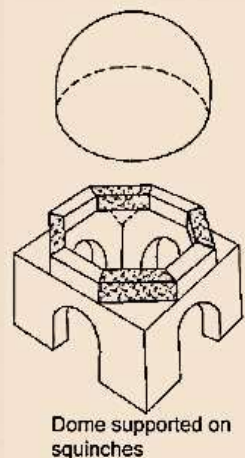
Greek Cross Plan:



Pendentive:



Spherical triangle



Dome supported on squinches

Byzantine architecture is renowned for its impressive **use of domes and cupolas on squinches or pendentives** and the use of a **central plan (Plan centré et coupoles sur trompes et sur pendentifs)**. **Churches** and religious buildings often featured central and lateral domes, creating a sense of grandeur and spirituality.

**The use of Greek Cross Plan (plan sur coix grecque):** Many Byzantine churches adopted a Greek cross plan, with a central nave and equal arms.

# Main characteristics of The Byzantine Architecture

## Golden mosaics and ferscos



**Glass shards mosaics (mosaïques de tessons / petits cubes de verre):** Interiors of churches were richly adorned with mosaics depicting religious figures, biblical scenes, and ornamental patterns. These mosaics were often used to convey theological concept.

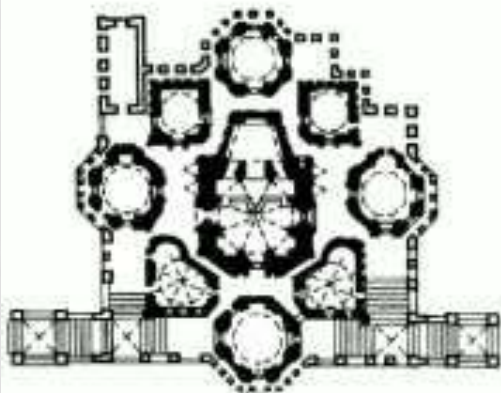


**Use of figurative and then floral mosaic with the application of gilding (emploi de la mosaïque figurative puis florale avec l'utilisation de la dorure).**

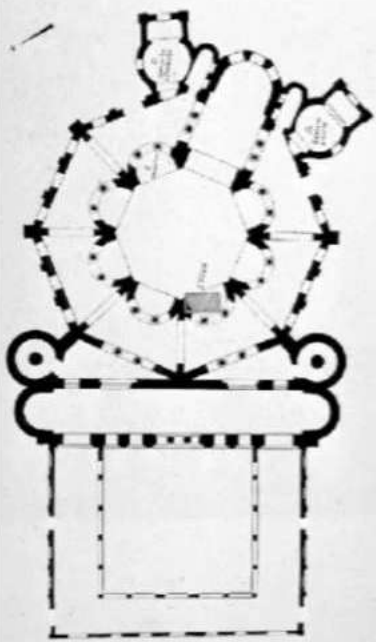


## Byzantine Churches Features

- Although it is impossible to identify two similar Byzantine churches, it is still possible to identify the basic characteristics of an ideal Byzantine church
- The attributes of the ideal church included:
  - The use of a centralized church plan
  - The use of surrounding isles
  - The use of pendentives and dome on pendentives
  - And the use of a complex program of interior structure, lighting and decoration to create fascinating interiors







San Vitale  
ca. 546-48 CE  
Ravenna, Italy



## Byzantine Churches Early prototypes **Sait Vitale, Ravenna, Italy**

### Early Prototypes (St Vitale Ravenna)

- Byzantine architecture has its early prototypes in two churches, San Vitale (526-47), Ravenna and in Saint Sergius and Saint Bacchus in Constantinople
- Ravenna once served as the seat of the Roman Empire
- The church is among the most important monument of Byzantine architecture
- It was also the prototype for the Hagia Sophia which was built 10 years later
- The exterior is very plain – no interest in impressing from the outside, but want to impress through the interior design and its meaning.



San Vitale Ravenna, view

Source: Trachtenberg & Hyman (1986)

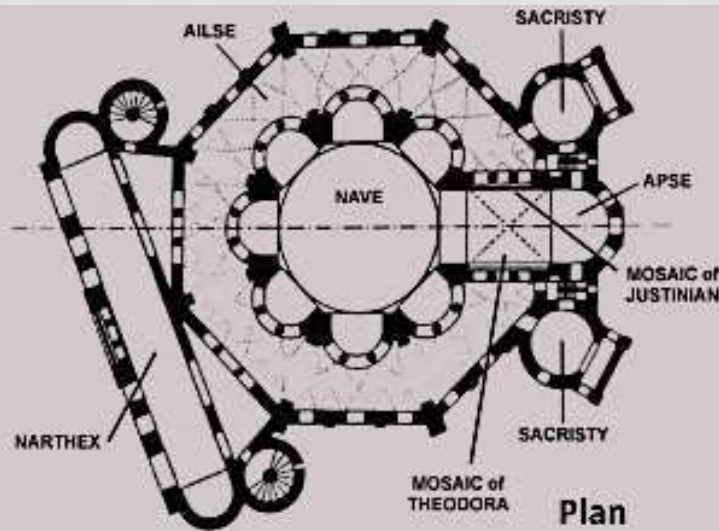




# Byzantine Churches

## Early prototypes

### Saint Vitale, Ravenna, Italy



#### Early Prototypes (St Vitale Ravenna AD 526-547)

- The church is octagonal in plan
- It has a domed octagonal core surrounded by ground level ambulatory with a gallery above it
- The outer wall of the ambulatory is also octagonal
- It has an apse which extends from the central core to one of the 8 sides of the outer octagon

## Early Prototypes (St Vitale Ravenna AD 526-547)

- The domed roof of the church is raised on a drum allowing it
- greater height and lighting
- The dome has a diameter of 17 meters and a height of 30 meters
- The Byzantine characteristics of the church include:
  - Its central planning
  - The structural arrangement of its central dome
  - The use of surrounding isles
  - And the way structure, lighting and decoration have been integrated in the interior of the church



San Vitale, Ravenna - Interior  
Source: K. Cohen San Jose St Univ.

## Early prototypes St Vitale Greco-roman inspirations



The Baths of Caracalla, Rome, c AD 212-216



San Vitale, Ravenna, c. AD 548



## Early Prototypes (St Vitale Ravenna)

- Central image of Christ. Emphasis on natural landscape, with greenery and flowers. But, behind him is a heavenly realm characterized by a gold background. Shows Christ as the ruler of the world, and he wears purple garments.
- Panels that show the donors themselves. The Emperor Justinian, wearing the same kind of clothes that Christ is depicted as wearing, shown presenting a liturgical vessel to the bishop of the church. He is flanked by the imperial troops that contain the chi ro symbol – first developed through Constantine.

mosaic panels showing Emperor Justinian



## Early prototypes St Vitale Mosaics and Frescoes

The Meaning of the  
Chi-Rho Symbol



## Early Prototypes (St Vitale Ravenna)

- Series of smaller arches supporting a centrally domed space. At one end of the plan there is an area that protrudes outward for the altar space Filled with decorative, colorful and vibrant mosaics.





Hagia  
Sofia  
532-537  
558-563



## Byzantine Churches

### Early prototypes

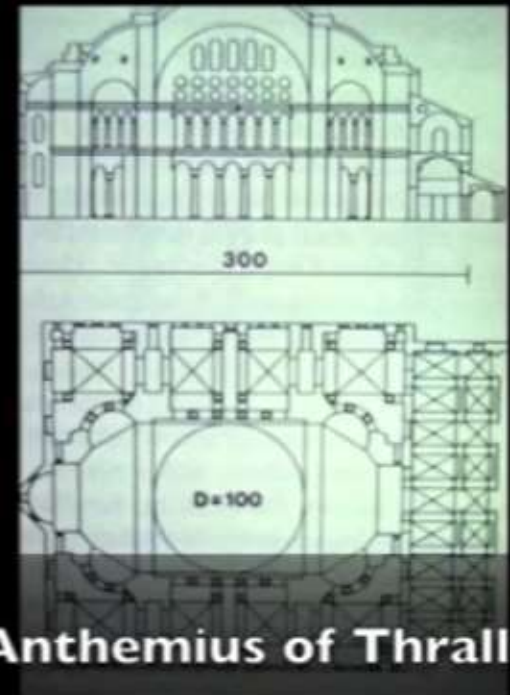
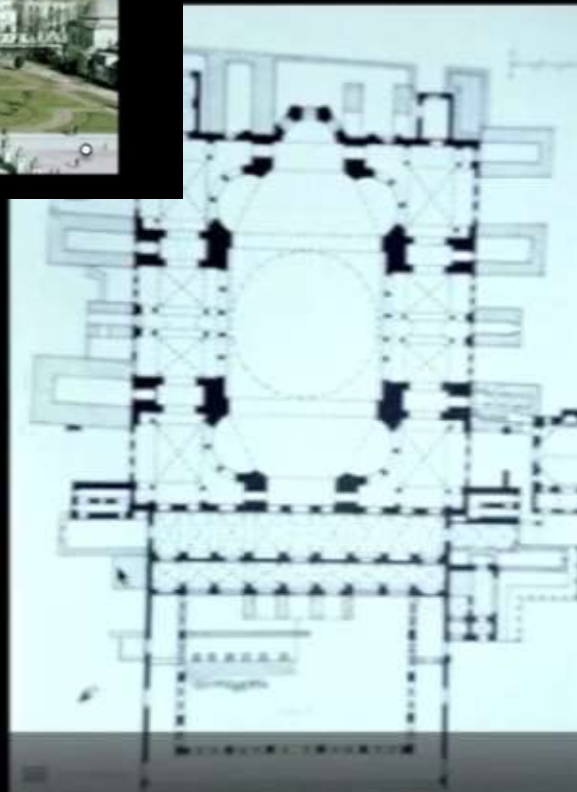
### Hagia Sophia

**Minarets**



The basilica served as an Orthodox cathedral for many centuries, then as a mosque after the Ottoman conquest of Constantinople in 1453. More recently, in 1935, it was transformed into a museum. In 2020, it was reconverted into a mosque by presidential decree.

Hagia  
Sofia  
532-537  
558-563



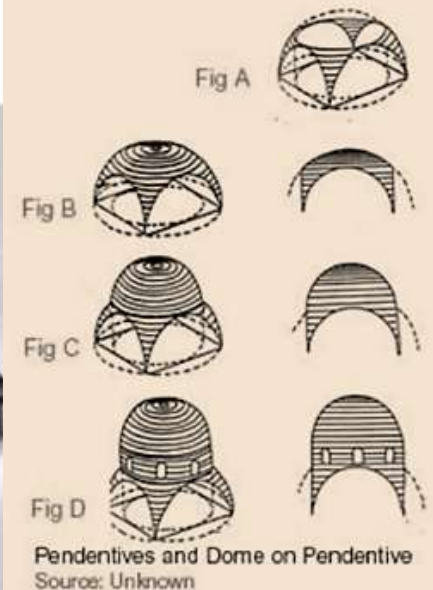
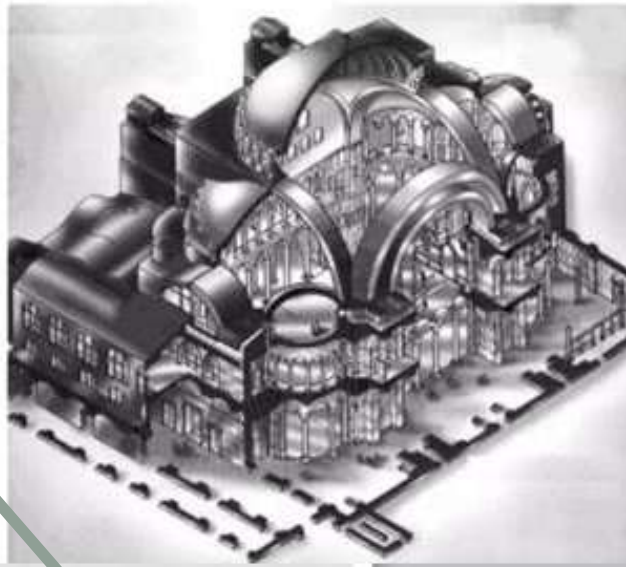
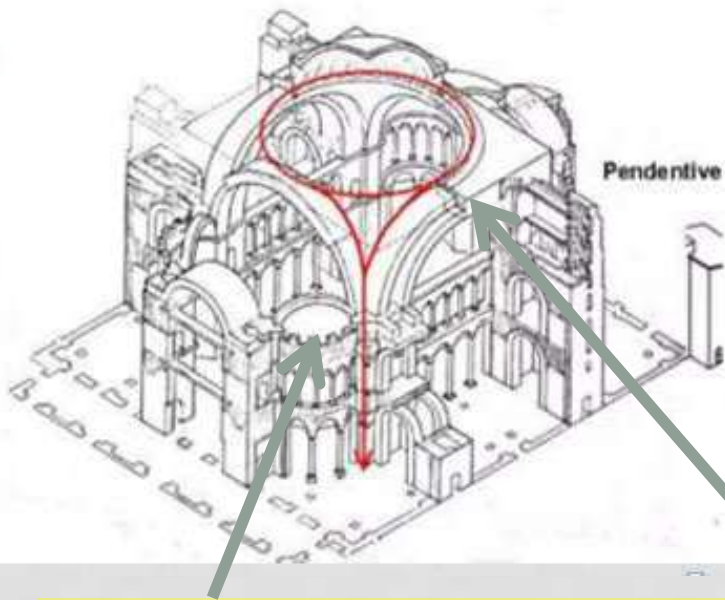
**Isadore of Miletus & Anthemius of Thralles**

# Early prototypes

## Hagia Sophia features

### Domes on pendentives and on squinches

- The pendentive dome and the dome on pendentives provided the Byzantine architects with a unique way of adjusting the circular form of a dome roof to a square or polygonal plan

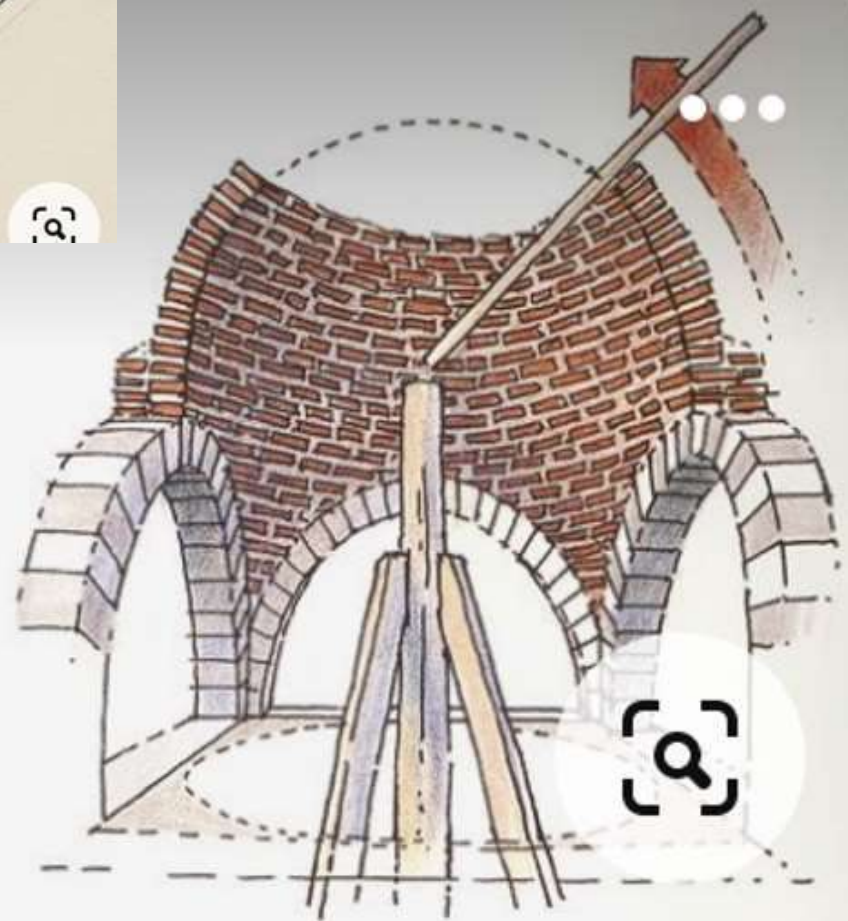
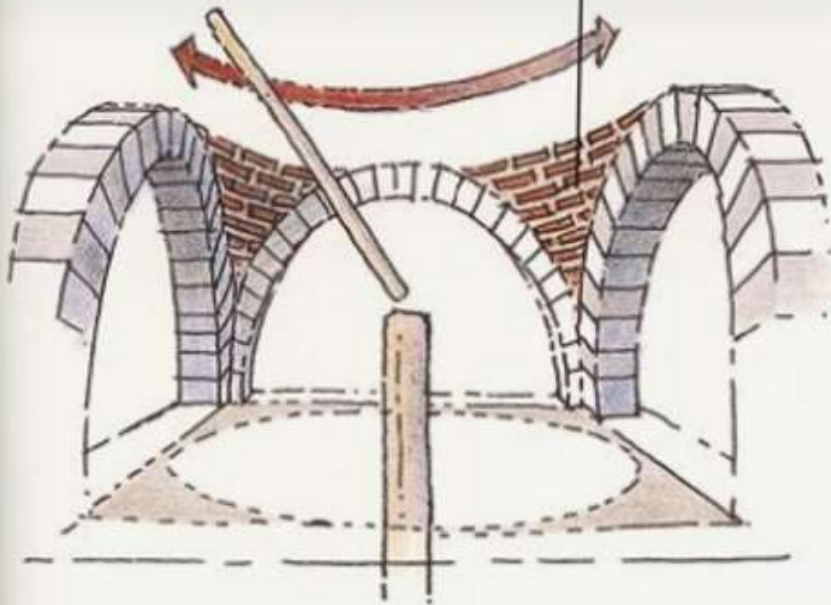


**Small domes on squinches and large domes on pendentives**  
Petits dômes sur trompes et grand dômes sur pendentifs

# Early prototypes Hagia Sophia Pendentives Construction

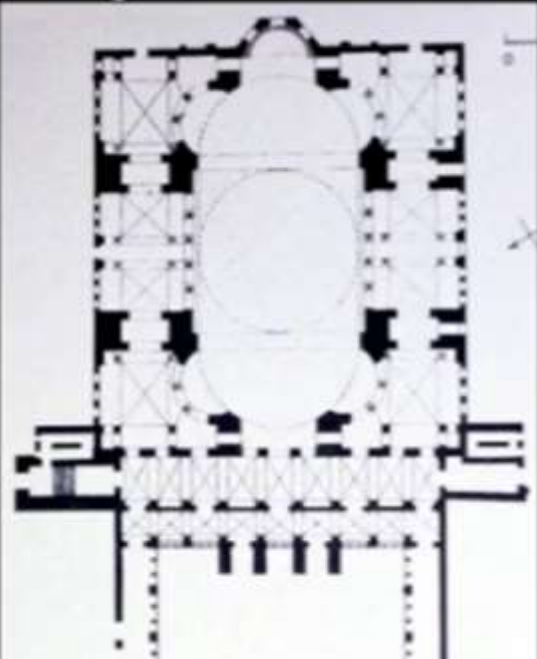


*pendentive*

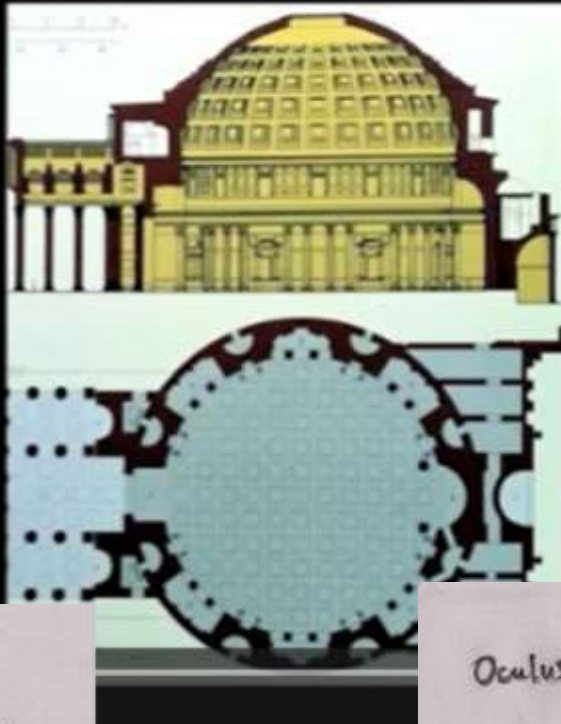




Hagia Sofia



Pantheon, Rome



# Early prototypes Hagia Sophia Comparison

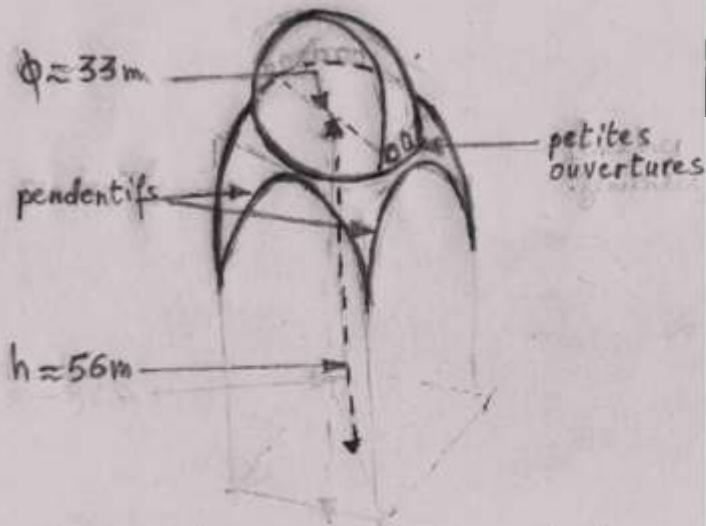


Schéma de la coupole centrale  
de Sainte Sophie  
(532 à 537 après J.C.)

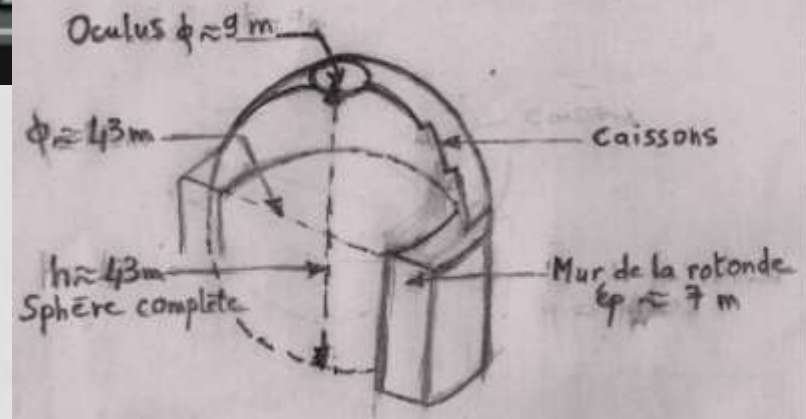
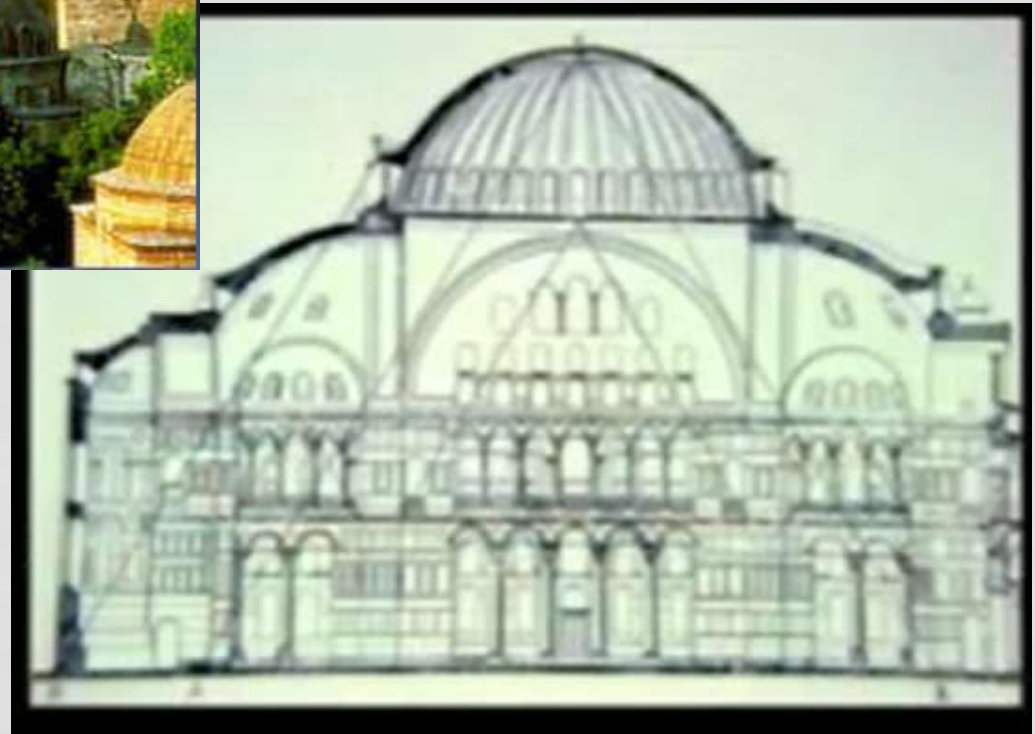


Schéma de la coupole  
du Panthéon  
de Rome  
(118 à 125 après J.C.)

**Early prototypes**  
**Hagia Sophia**  
**Pyramidal Facade**



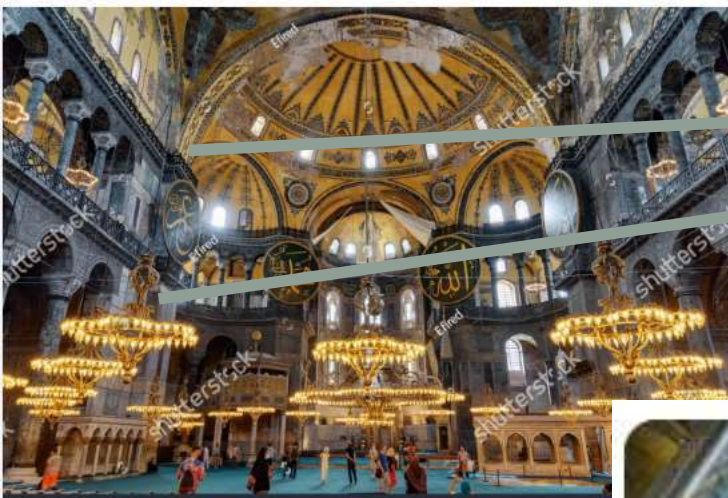
**Pyramidal arrangement of cupolas**



**Early prototypes**  
**Hagia Sophia features**  
**Interior Ornaments**

**Mosaic in shards of glass /**  
**Mosaïque en tessons de verre**

**Cubic capitals /**  
**Chapiteaux cubiques**



**Use of Gilding /**  
**Emploi de la Dorure**





# Influence of the byzantine prototypes

After the **Great Schism of 1054**, which marked the division between the Roman Catholic Church and the Eastern Orthodox Church, **Orthodox cathedrals continued to follow the Byzantine architectural model in regions where Byzantine influence was predominant (Turkey; Balkans: Greece, Bulgaria, Serbia, and Montenegro; Southern Italy: Ravenna; Middle East: Syria, Lebanon, Palestine; North Africa: Algeria, Tunisia, Morocco, Egypt).**

However, it is essential to note that the architecture of Orthodox churches has also been influenced by local and regional factors over time.

Eglise d'influence  
byzantine à Moscou



Après le Grand Schisme de 1054, qui a marqué la division entre l'Église catholique romaine et l'Église orthodoxe, **les cathédrales orthodoxes ont continué à suivre le modèle architectural byzantin dans les régions où l'influence byzantine prédominait (Turquie; Balkans: la Grèce, la Bulgarie, la Serbie, et le Monténégro; Italie du Sud : Ravenne; Proche-Orient: Syrie, Liban, Palestine; Afrique du nord: Algérie ,Tunisie, Maroc, Egypte).**

Cependant, il est essentiel de noter que l'architecture des églises orthodoxes a également été influencée par des facteurs locaux et régionaux au fil du temps.

Mosquée  
Sultan  
Ahmed ou  
Mosquée  
Bleu



## Influence of the byzantine prototypes



123RF

Eglise Du Sauveur Sur Le Sang, Sain...

Eglise St. Michael the l'Archange à Kaunas



Eglise d'influence byzantine à Vilnius





## Astrakhan Temple de St Vladimira en Russie



**Influence  
of the byzantine prototypes**

**Eglise d'influence byzantine à Vilnius**



Imago Mundi : Ency...  
Saint-Petersbourg.





# ARCHITECTURE OF THE MEDIEVAL EUROPE ERA

Romanesque and Gothique periods



**TYPES OF TOWNS**  
MEDIEVAL EUROPE ERA

Carcassonne  
Town\_France



# The Elements of the Medieval city

## Civic Buildings

Express pride and wealth of a town's inhabitants and are concentrated around and near market place(s).



Town Hall

Always reserved prime site on main market square where their scale and size provides striking contrast to other buildings in the area. - often positioned opposite town church (cathedral) or even secular ruler's castle.



Guild Hall

besides church, the most important representative of corporate life



Hospital

- to care for old and poor
- set up by holy orders

# Fortifications of the medieval city

## City Walls, Gates, Towers

- determine outline and general appearance of medieval city
- give medieval community its strongest characteristic of homogeneity.



Gates

- Represent link with the outside world
- major roads lead from gates to other towns etc.
  - control and customs point for people and goods
  - strategically represent weakness in defensive system, therefore often flanked by towers.



Towers

- To defend walls and city and afford the outflanking of enemy (crossfire)
- re-inforce walls structurally
  - ballistically represent an advantage as can fire further away



Walls

- Defend city, people, animals and property
- symbolise to outside world a town's strength & political independence note: destruction of urban wall means loss of freedom
  - large proportion of public funds devoted to construct, maintain and extend urban fortifications



# European Middle ages

## Romanesque vs Gothique Architecture



**Romanesque Style**

**10<sup>th</sup> to 12<sup>th</sup> century**

**Emerges in Rome, Italy and then spreads throughout all of occidental catholic Europe**



**Gothic Style**

**12<sup>th</sup> to 16<sup>th</sup> century**

**Emerges in Normandy, France and then spreads throughout all of occidental Catholic Europe**

# European Middle ages

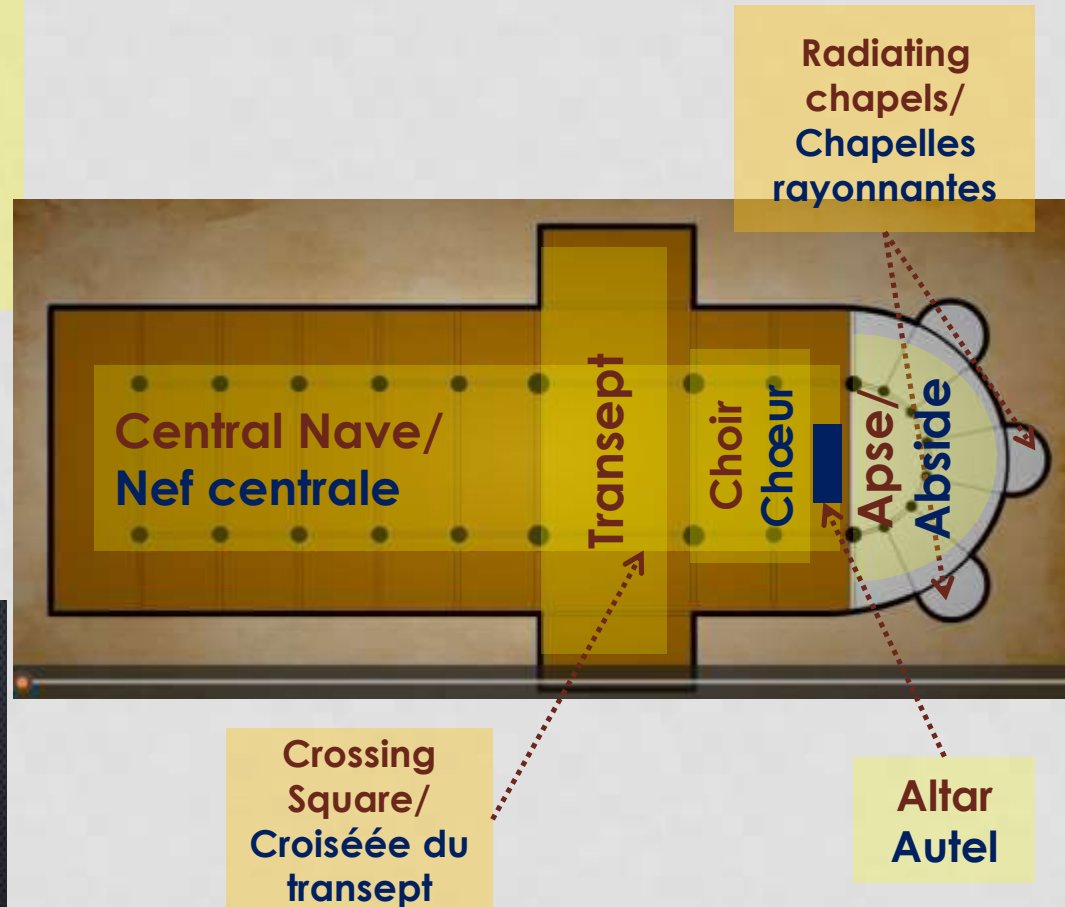
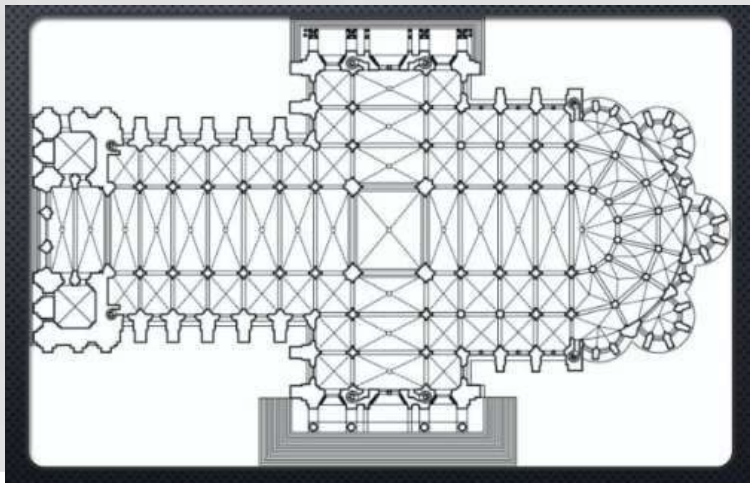
## Romanesque vs Gothique Architecture

### Common feature:

Basilical longitudinal plan on Latin cross /

Plan basilical longitudinal sur croix latine.

- LATIN CROSS "CRUCIFORM" PLAN
- LONG NAVE BODY OF THE CHURCH
- TRANSEPT TRANSVERSE ARM





Massive  
and  
squashed  
/  
Light and  
slender

Light and  
darkness

# ROMANESQUE

VS

# GOTHIC



AS MEDIEVAL EUROPE EMERGED FROM THE FIGHTING AND  
TURMOIL OF THE DARK AGES, TWO MAJOR STYLES OF  
ARCHITECTURE DEVELOPED: ROMANESQUE AND GOTHIC. LET'S  
LOOK AT HOW THEY DIFFER.



## FEATURES



### SEPARATE COMPARTMENTS

Several geometric forms make up the building, rather than one shape.



### DARK, SOLEMN SPACES

Due to small windows and doors, limited light is passing into the inside of churches.



### BARREL VAULTS

Replaced flat roofs and needed thick heavy walls for support



### SMALL WINDOWS & DOORS

Wars and invasions were common, so windows and doors were kept minimum.



### ROUNDED ARCHES

Built with carefully dressed blocks of stone, such as in Roman theaters, etc.

### CHAPELS



### MOOD



### VAULT



### OPENINGS



### ARCH



### UNIFIED SPACE

In eliminating interior walls, gothic buildings managed to create a sense of a unified space.



### LIGHT-FILLED SPACES

Light was not just used to illuminate the interior but rather to allow light to pass through the different colored glass.



### RIB VAULTS

Channeled weight into corners allowing for use of piers to remove thick walls



### STAINED GLASS WINDOWS

Channeled weight into corners allowing for use of piers to remove thick walls



### POINTED ARCHES

Pointed arches send weight down straighter allowing for a thinner wall.

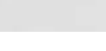




# European Middle ages

## Romanesque vs Gothique Architecture

### Main differences / Structure

| ROMANESQUE                                                                                                 | GOthic                                                                                                                    |
|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <br><b>ELEVATION</b>     | <br><b>SOARING, VERTICAL LINES</b>      |
| <br><b>VAULT SUPPORT</b> | <br><b>EXTERIOR FLYING BUTTRESSES</b> |
| <br><b>SCULPTURE</b>   | <br><b>REALISTIC PROPORTIONS</b>      |
| <br><b>EXTERIOR</b>    | <br><b>ORNATE, DELICATE</b>           |

**MODEST HEIGHT, HORIZONTAL LINES**  
Emphasis on horizontal lines similar to those Greek and Roman public buildings.

**THICK WALLS, BUTTRESSES**  
Generally of a flat square profile and is not a highly significant feature because of thick walls.

**ABSTRACT FIGURES THIN, LONG**  
On this moldings around the portal of Lincoln Cathedral are tongue poking monsters, abstract figures etc.

**PLAIN, FEW DECORATIONS**  
On this moldings around the portal of Lincoln Cathedral are tongue poking monsters, abstract figures etc.

**SOARING, VERTICAL LINES**  
Perpendicular Gothic became a known variation because it emphasized strong vertical lines in many arch. elements.

**EXTERIOR FLYING BUTTRESSES**  
Flying buttresses allowed tall clerestories to exist that let enormous amounts of light in.

**REALISTIC PROPORTIONS**  
Its intent was to present the stories of the Bible in vivid fashion to great majority of the faithful who couldn't read.

**ORNATE, DELICATE**  
As the style evolved, decorative art tended to supersede thus decorative stonework is added.

SANOSA, EINGELROSE F  
ARCH21S3

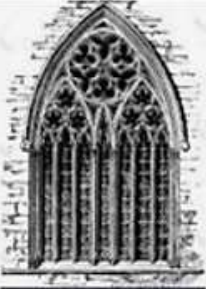
Massive and squashed (short)/

Light and slender

# European Middle ages

## Romanesque vs Gothique Architecture

### Main differences / Arches and vault

| Characteristic | Romanesque                                                                          | Gothic                                                                               |
|----------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Arches         |    |    |
| Vaulting       |    |    |
| Windows        |   |   |
| Decoration     |  |  |

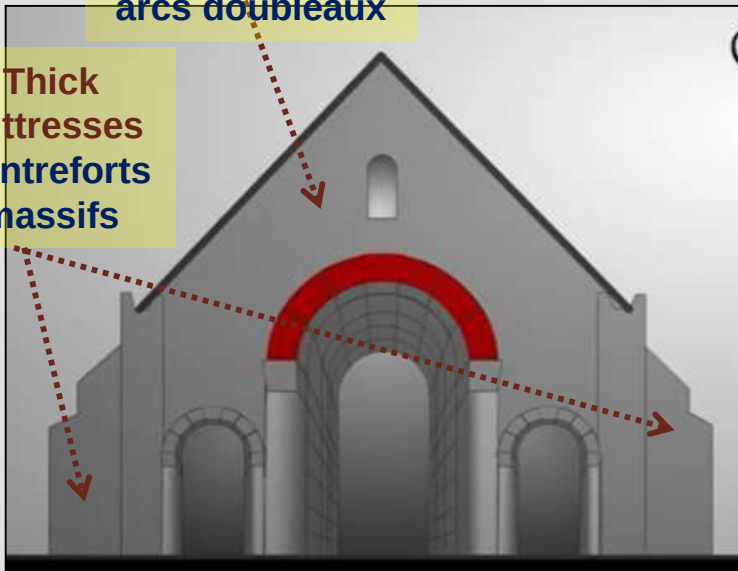
# European Middle ages

## Romanesque vs Gothic Architecture

### Structure systems

Barrel vault on  
double arches  
Voûte en  
berceau sur  
arcs doubleaux

Thick  
buttresses  
Contreforts  
massifs



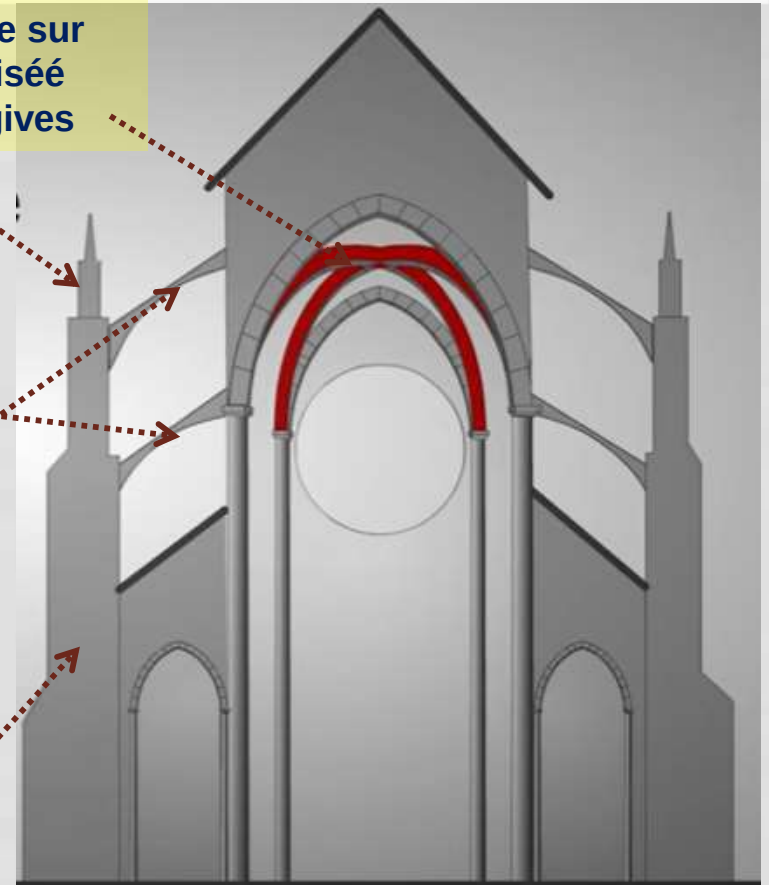
Romanesque  
structural system

Ribbed vault  
Voûte sur  
croisée  
d'ogives

Pinacle  
Pinacle

Flying  
buttress  
s  
Arcs  
boutants

Pier  
Pilier  
de  
culée



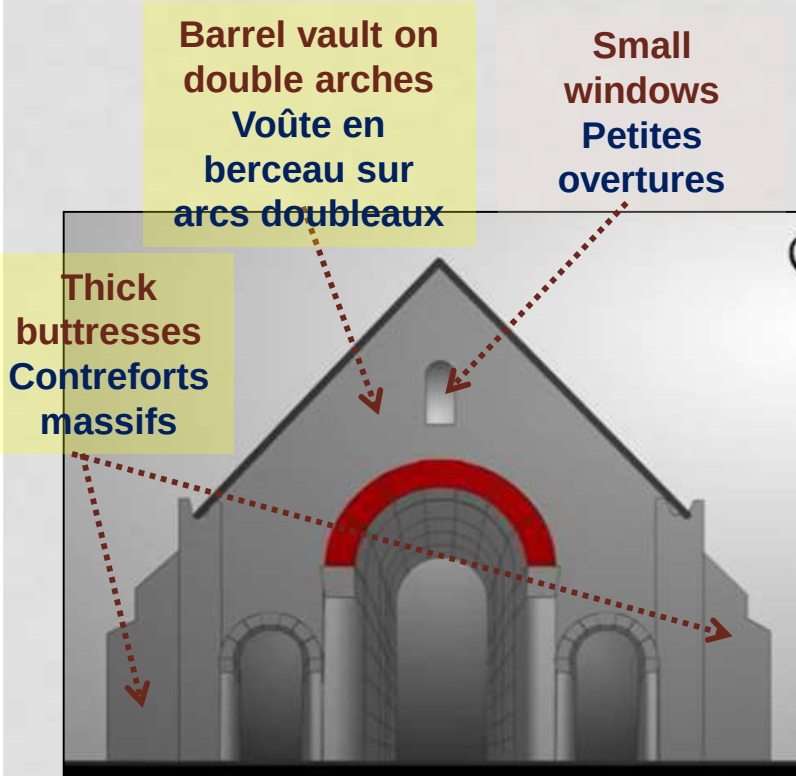
Gothic structural  
system



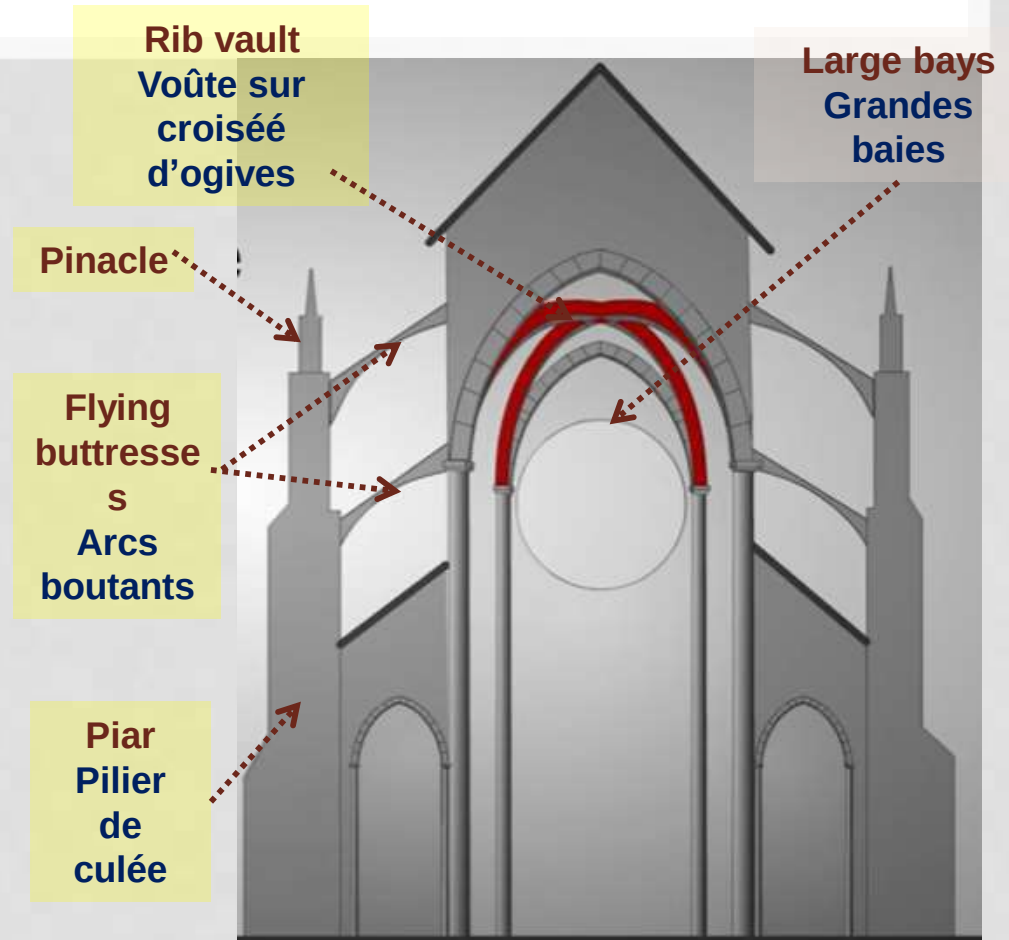
# European Middle ages

## Romanesque vs Gothique Architecture

### Structure systems

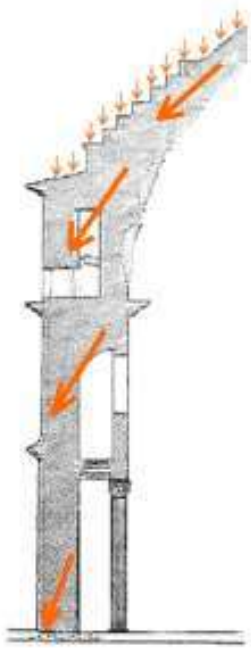


Romanesque structural system

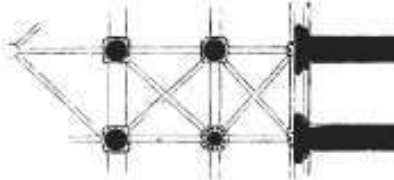
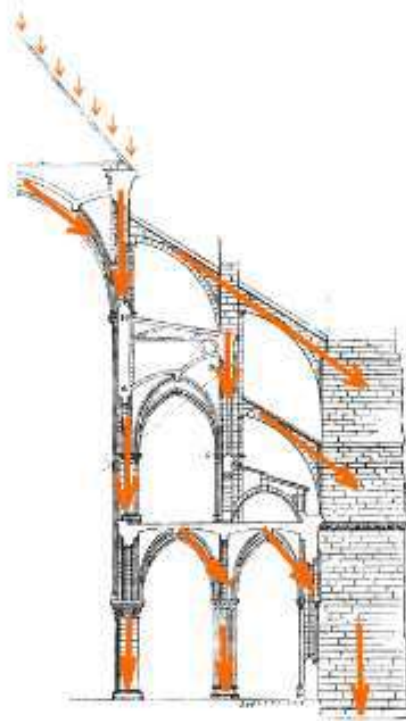


Gothic structural system

# European Middle ages Romanesque vs Gothique Structural solutions



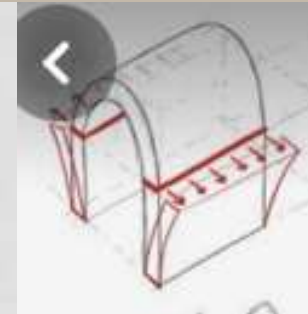
**Romanesque  
structural  
system**



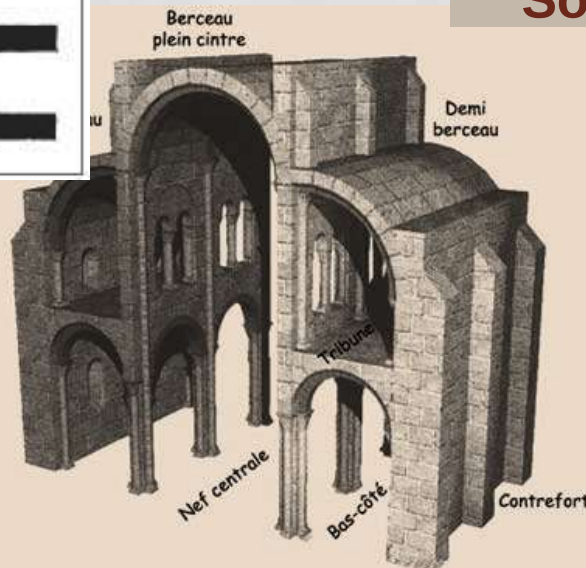
**Gothic  
structural  
system**

**Transmission of loads in  
both systems/  
Transmission des charges  
dans les deux systèmes**

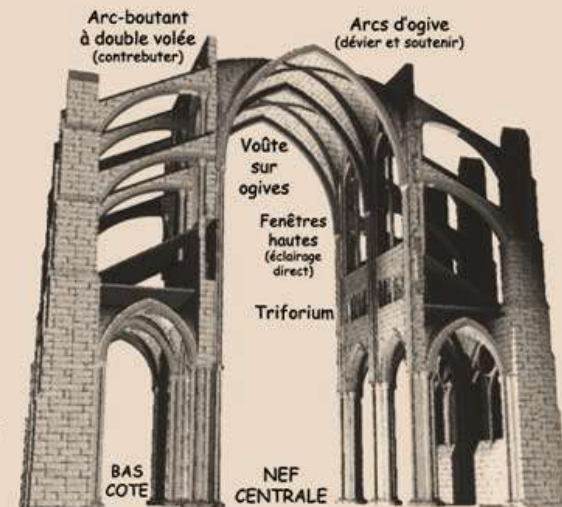
**Problem**



**Solution**



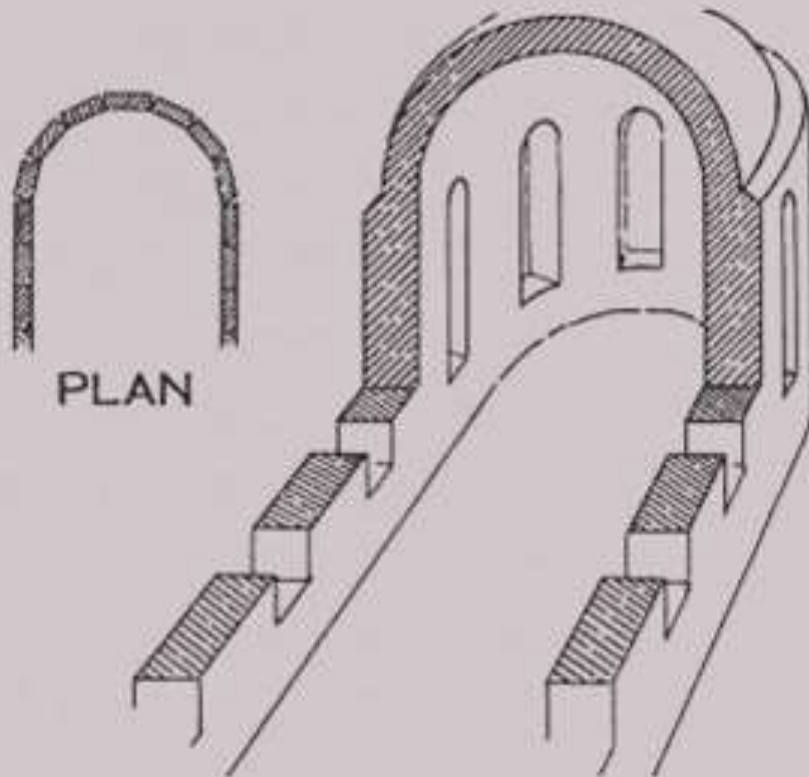
**SOLUTION ROMANE - SOLUTION GOTHIQUE**



# European Middle ages

## Romanesque vs Gothique

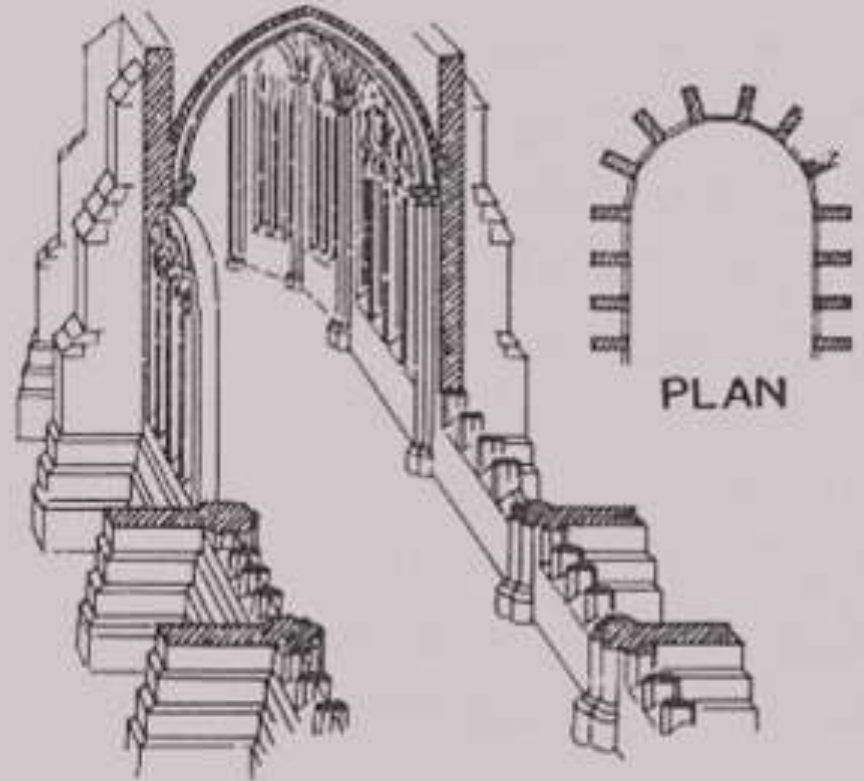
### Structural solutions



PLAN



ROMAN WALL  
SYSTEM



PLAN

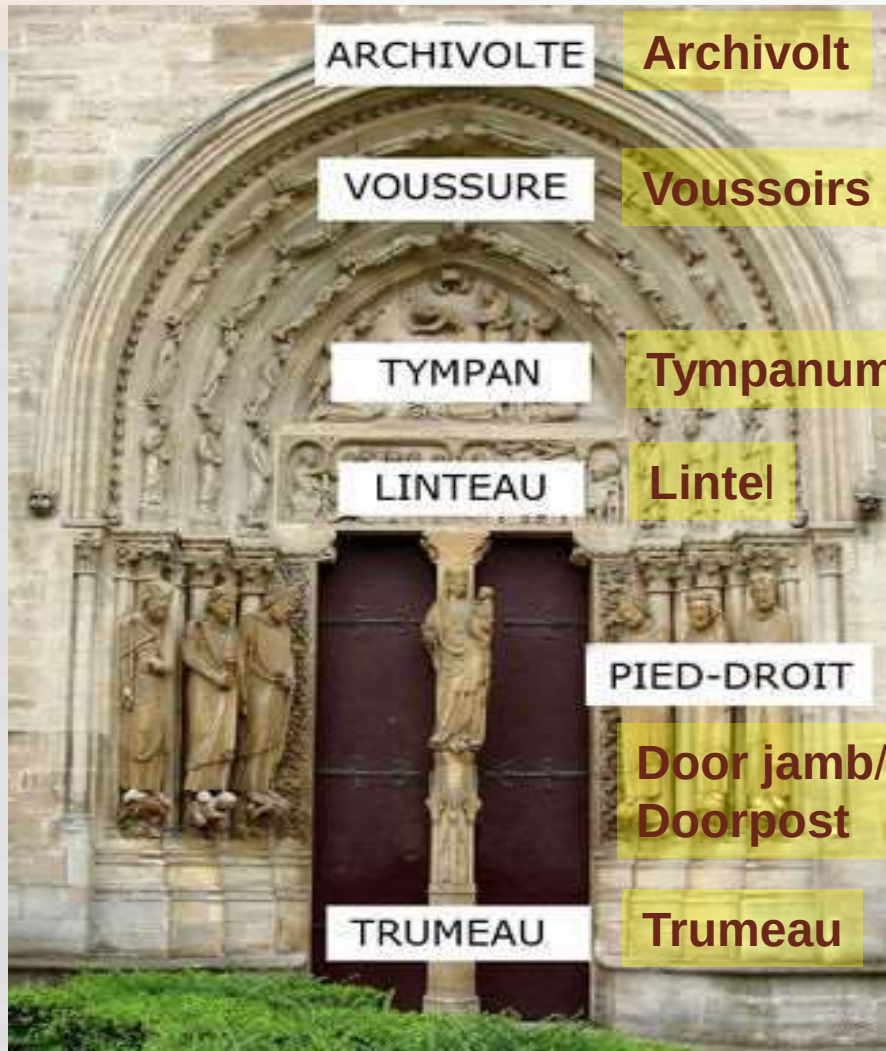
GOTHIC WALL  
SYSTEM

From thick walls to thin walls



Roman and Gothic portals have common features.

## European Middle ages Romanesque vs Gothique Roman and Gothic portal



- The style, sometimes called First Romanesque or Lombard Romanesque.

- Romanesque building types ---  
Churches  
Castles  
Monasteries  
Fortified Towns

Norman – Romanesque in Britain  
Ottonian – Romanesque in Germany

## European Middle ages

### Romanesque Features

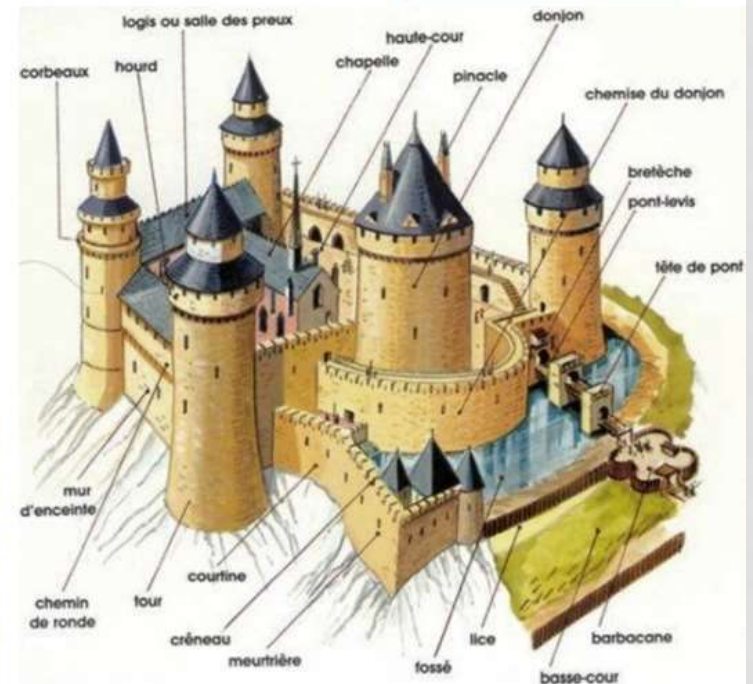
L'église



Le monastère



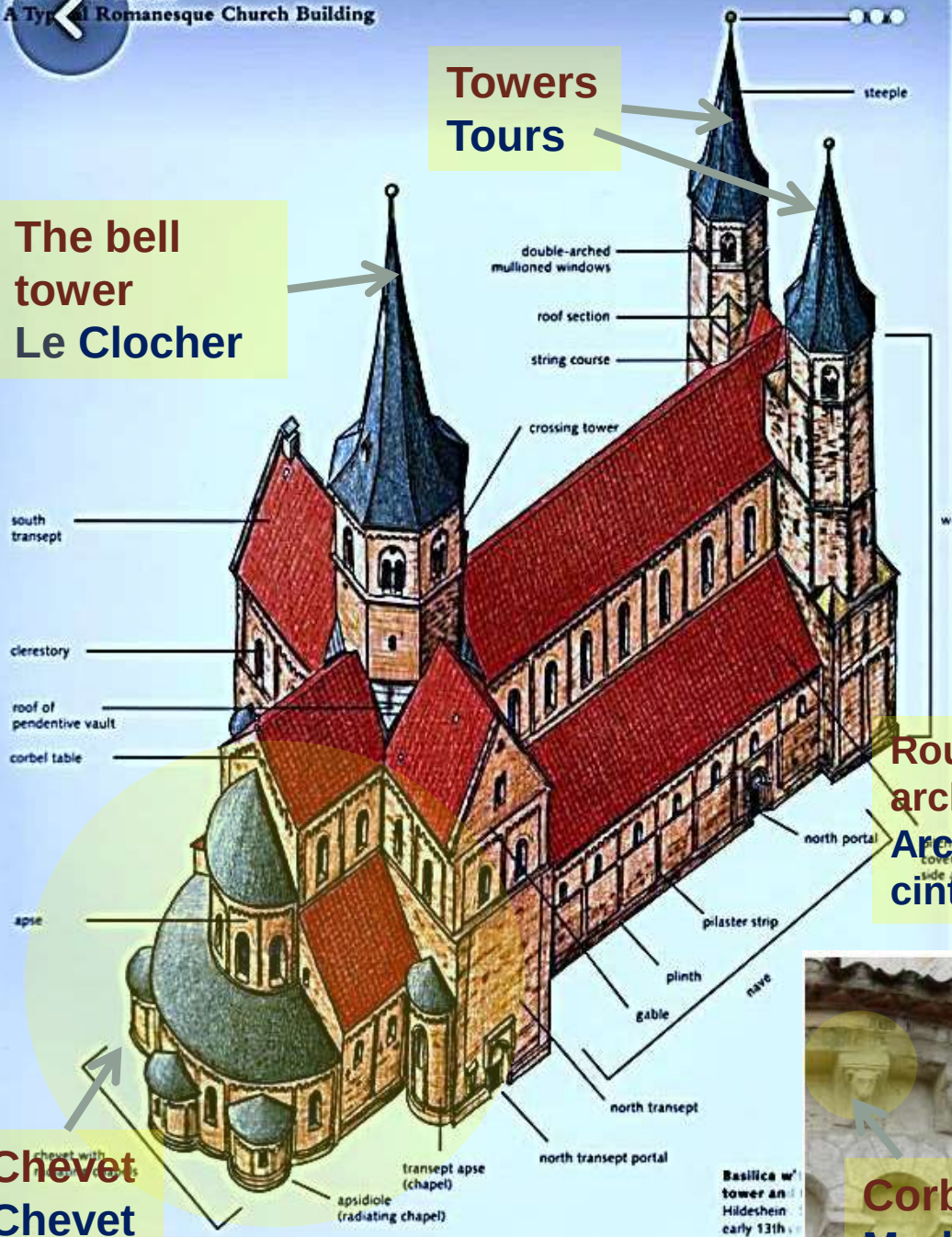
Le château fort





**Towers**  
**Tours**

**The bell tower**  
**Le Clocher**



**Chevet**  
**Chevet**

Basilica of  
Hildesheim  
early 13th

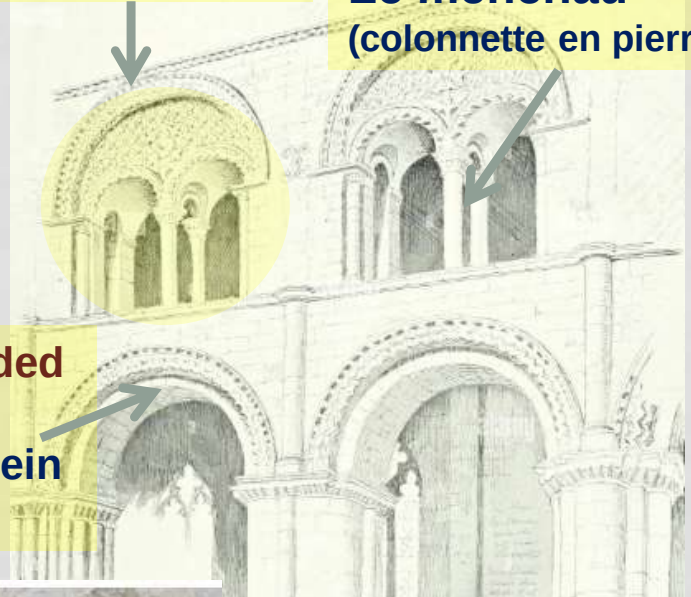
**Twin windows**  
**Fenêtres**  
**gémminées**

**The mullion (stone**  
**colonnette)**  
**Le menenau**  
**(colonnette en pierre)**

**Rounded arch**  
**Arco plein**  
**cintre**

**Corbels**  
**Modillons**

**Lombard bands**  
**Bandes lombardes**



**European Middle ages**  
**Romanesque**  
**Features**



## Le système de voûtes



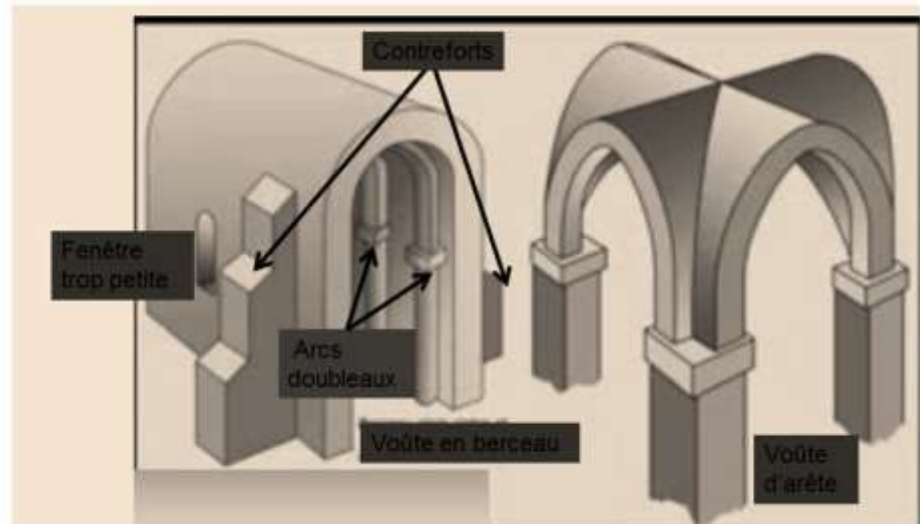
Voûte en berceau



Voûte d'arêtes

## European Middle ages Romanesque Vault Types

Toiture voûtée en plein cintre (Voûte en berceau), renforcée par des arcs qui la doublent (arc doubleau), ou en voûte d'arêtes.





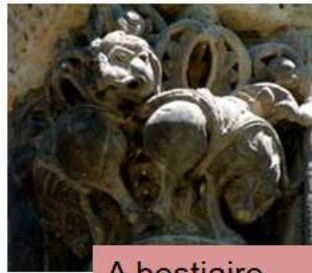
Cubique



Historié



Stylisé



A bestiaire



A godrons(en trapèze)

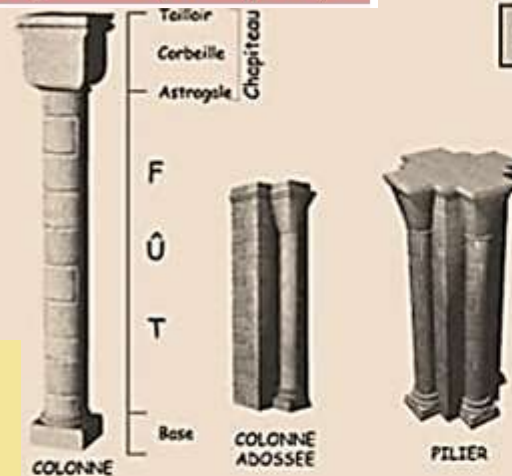


## Types of capitals

Engaged columns and clustered (fasciculated) columns

## European Middle ages Romanesque ColumnTypes

### SUPPORTS ROMANS



**COLONNE:** Support constitué d'un fût vertical, polygonal ou circulaire, d'une base et d'un chapiteau.

**PILIER:** Tout support, à l'exception stricte de la colonne et du mur.

**Support:** tout ce qui soutient et supporte une charge: les principaux supports sont la colonne, le pilier et le mur.

### TYPES DE SUPPORTS



Colonne adossée



Pilier carré



Pilier cruciforme



Pilier carré flanqué de colonnes



Colonne engagée



Pilier fasciculé



Pilier cylindrique flanqué de colonnes



Pilier composé

# European Middle ages

## Romanesque

## Famous Churches



L'abbaye de Cluny en France.

Le **plus grand monastère de l'Europe** au moyen âge

**Cluny Abbey , France**

### **St. Peter's Church, Cluny, France:**

The Cluny Abbey was a center of Romanesque art and architecture, and St. Peter's Church was a significant part of it.

**Speyer Cathedral, Germany:** A UNESCO World Heritage Site, Speyer Cathedral is one of the largest and most important Romanesque cathedrals in Germany.

**Durham Cathedral, England:** While primarily Gothic, Durham Cathedral has Romanesque elements, especially in its earlier sections. It is a UNESCO World Heritage Site.

**Pisa Cathedral, Italy:** The Cathedral of Pisa, part of the Piazza dei Miracoli, is a masterpiece of Pisan Romanesque architecture.

.....



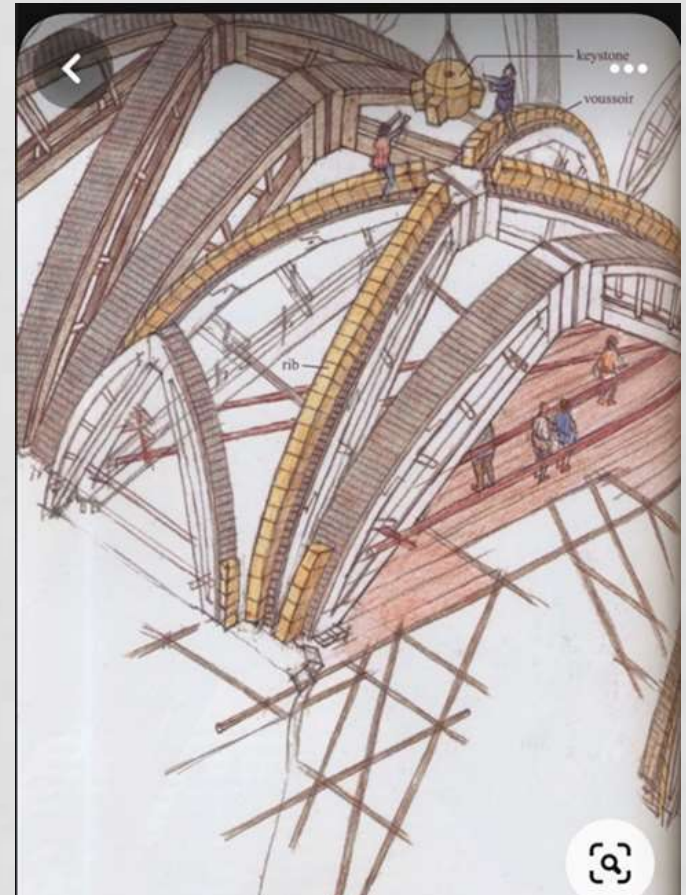
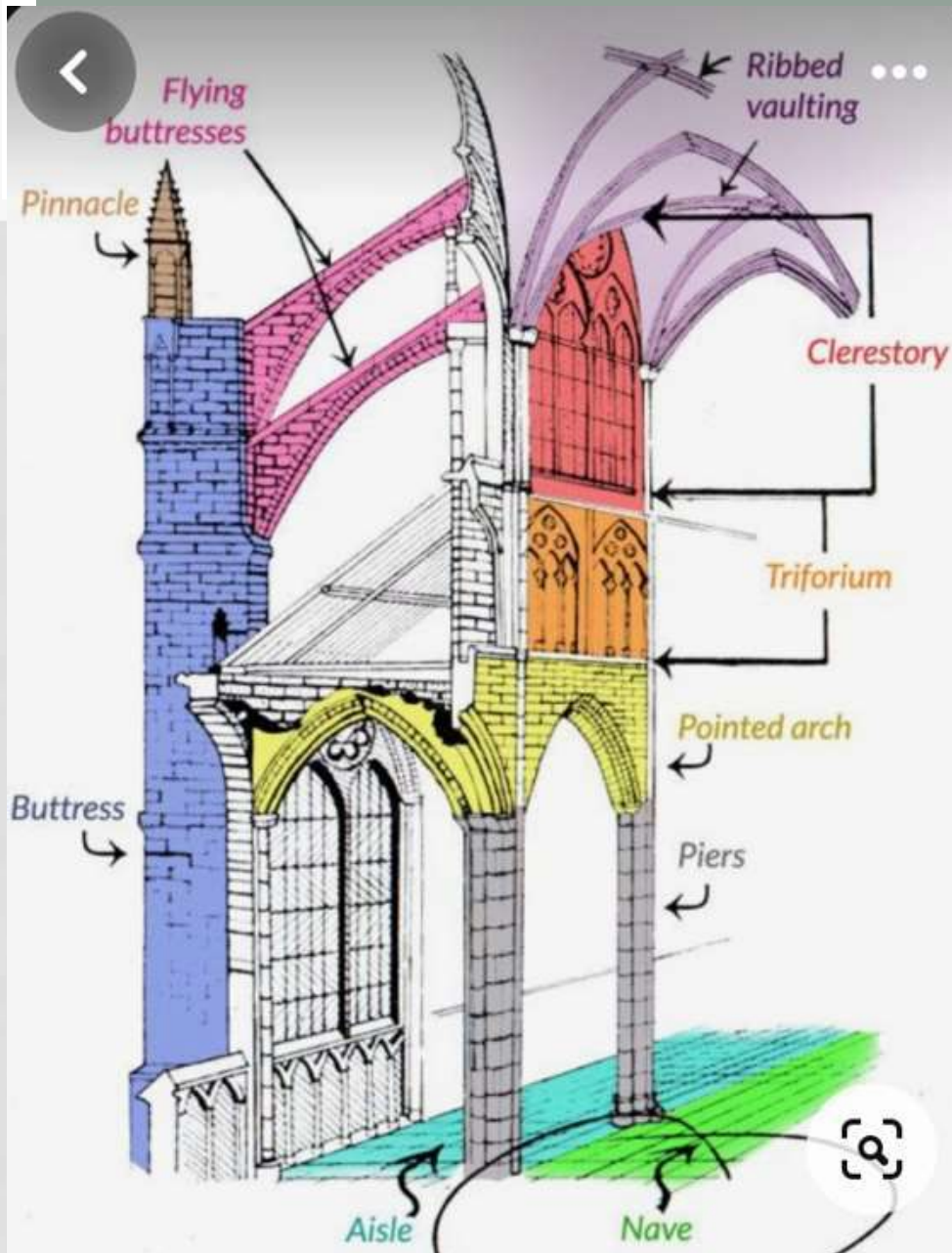
**Pisa Cathedral, Italy**



# European Middle ages

## Gothic

### Features / Structure



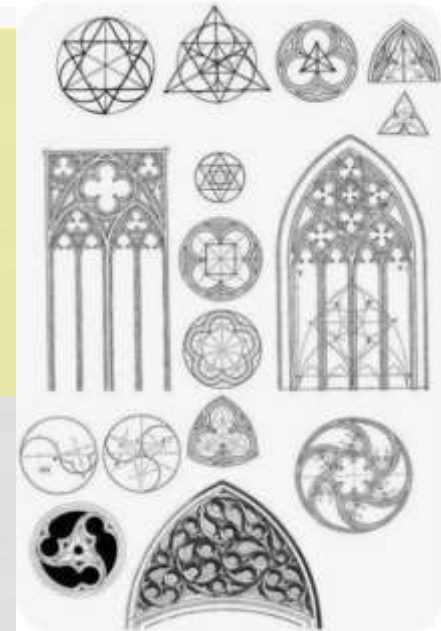
Pointed arch and rib vault  
Arc ogival et croisée d'ogives



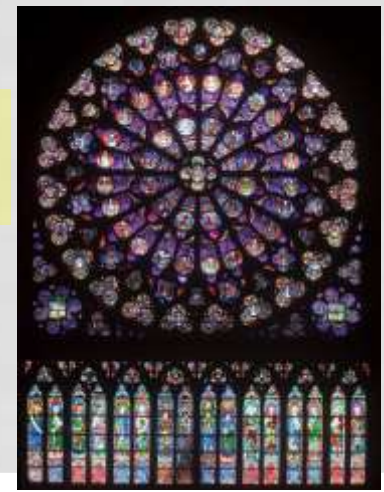
## European Middle ages Gothic Features / Tracery and Stained Glass

**Tracery:** carved stone window bar

Remplage : barreaudage de fenêtrage en pierre sculptée

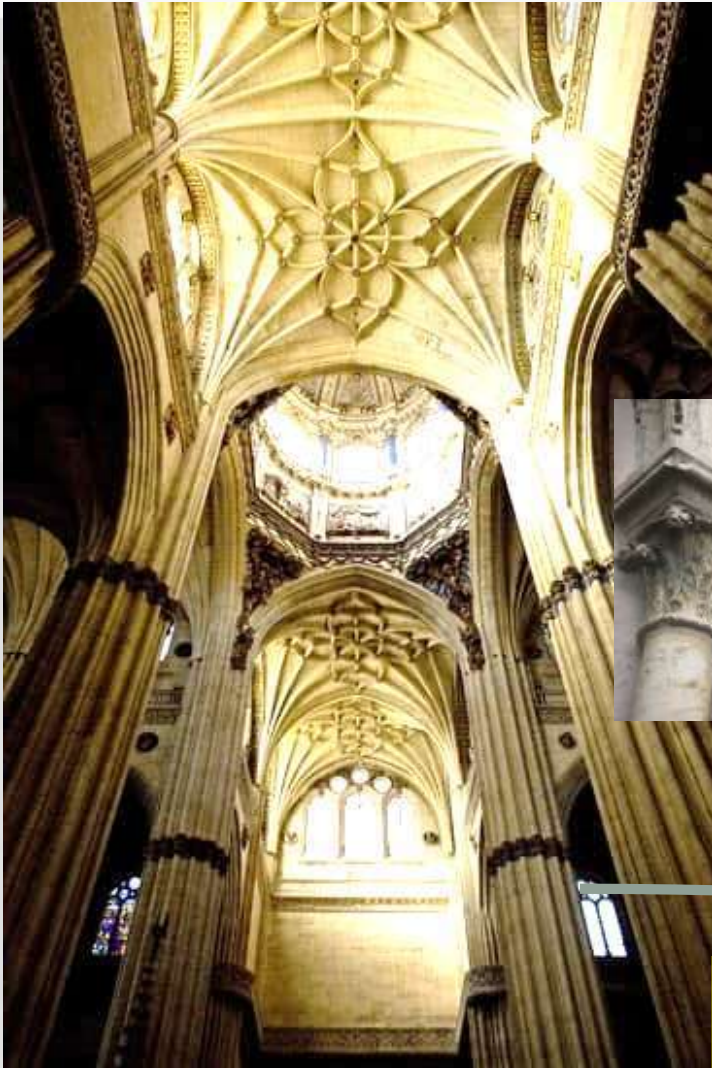


**Stained glass windows**  
Vitrail / Vitraux



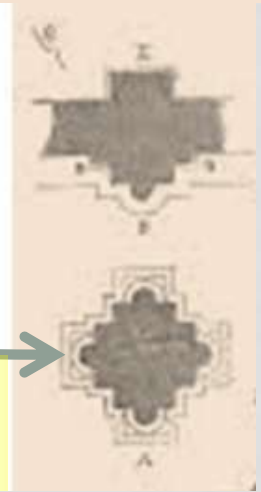


# European Middle ages **Gothic** Features / Columns



**Hook Capitals**  
**Chapiteaux à crochet**

**Slender, fasciculated columns**  
**Colonnes élancées et fasciculées**





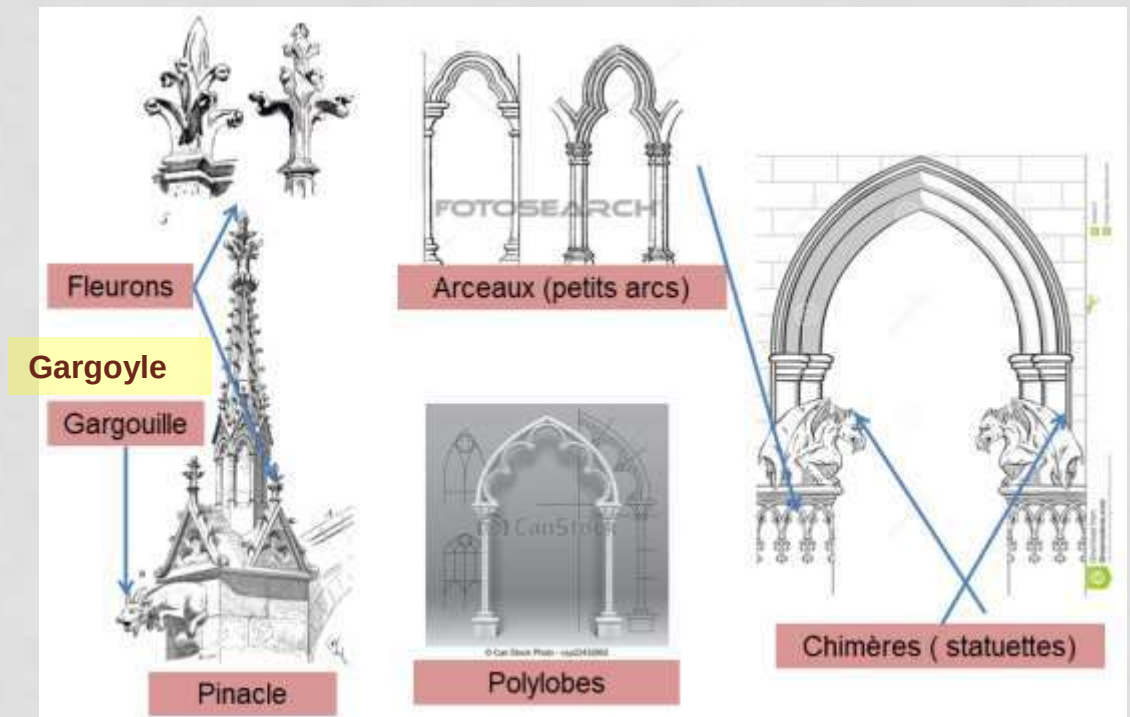
# European Middle ages

## Gothic

### Features / Spires and Gargoyles



**Spire**  
**Flèche**



# European Middle ages

## Gothic

### Features / Ornaments Details



Frieze with vine leaves  
Frise en feuilles de vignes



Rose window  
Rosace

Radiant and  
flamboyant  
tracery  
Remplages  
rayonnants et  
flamboyants



Fenêtres  
rayonnantes

Fenêtres  
flamboyantes

## Famous examples Gothic Cathedrals Phases of evolution

The **"primitive" Gothic**, which succeeded Romanesque art around 1130, marked by the **introduction of ribbed vaults**.

The **"classical" Gothic**, between 1190 and 1230, featuring **flying buttresses** as seen in Chartres Cathedral.

The **"radiant" Gothic**, between 1230 and 1350, characterized by **majestic roses and numerous stained glass windows**.

The **"flamboyant" Gothic**, in the 15th century, offering **intricate and flamboyant decorations**.

The **"late" Gothic** in the 16th century, characterized by **an abundance of ornamentation**.

Le gothique **"primitif"**, qui a succédé à l'art roman vers 1130, avec l'apparition de la voûte d'ogives

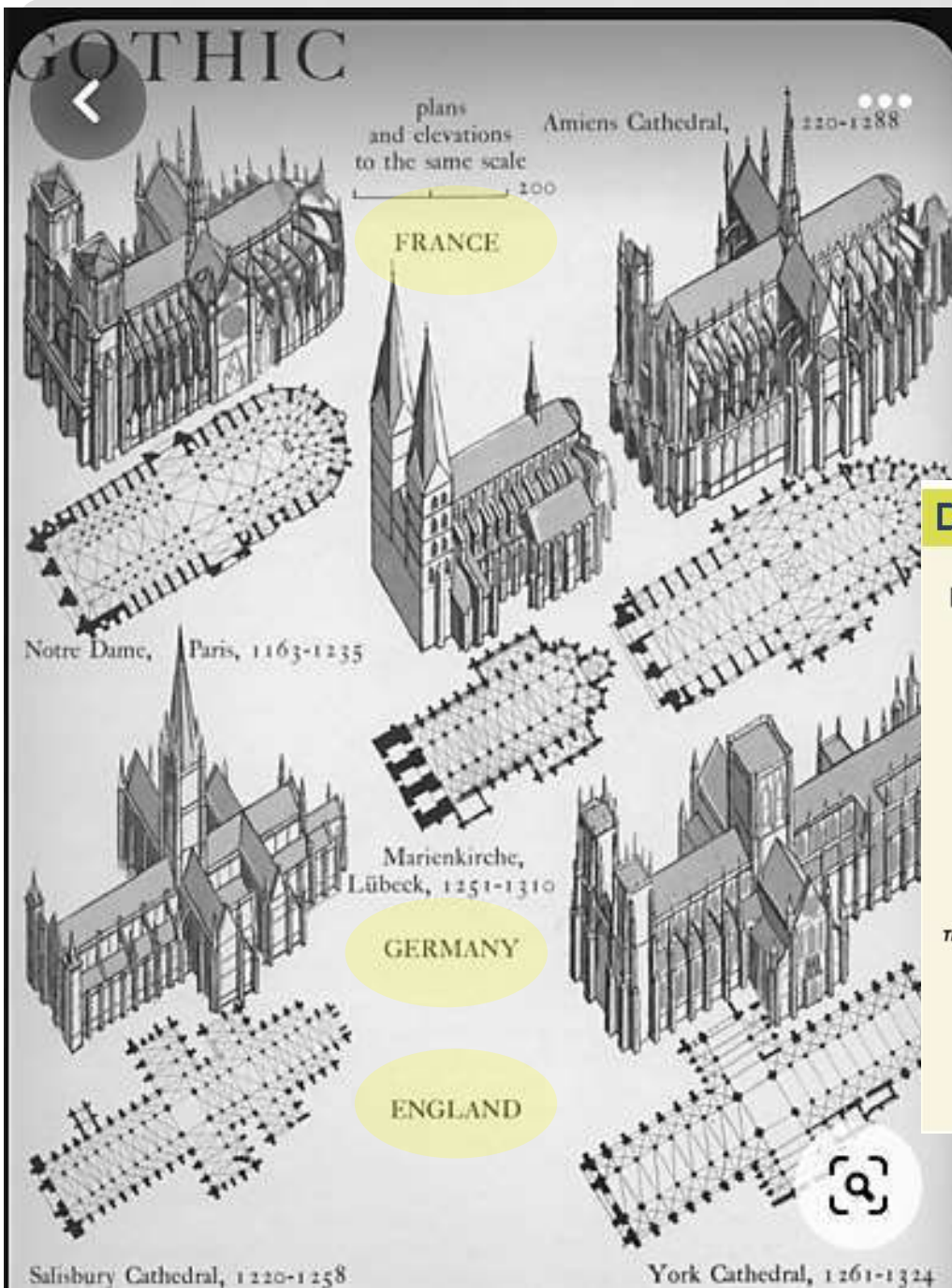
Le gothique **"classique"**, entre 1190 et 1230, avec des arcs-boutants sur le modèle de la cathédrale de Chartres

Le gothique **"rayonnant"**, entre 1230 et 1350, caractérisé par des roses majestueuses et de nombreux vitraux

Le gothique **"flamboyant"**, au XVème siècle, offrant des décors chargés et tourmentés

Le gothique **"tardif"** au XVIème siècle, caractérisé par une surcharge de décorations.



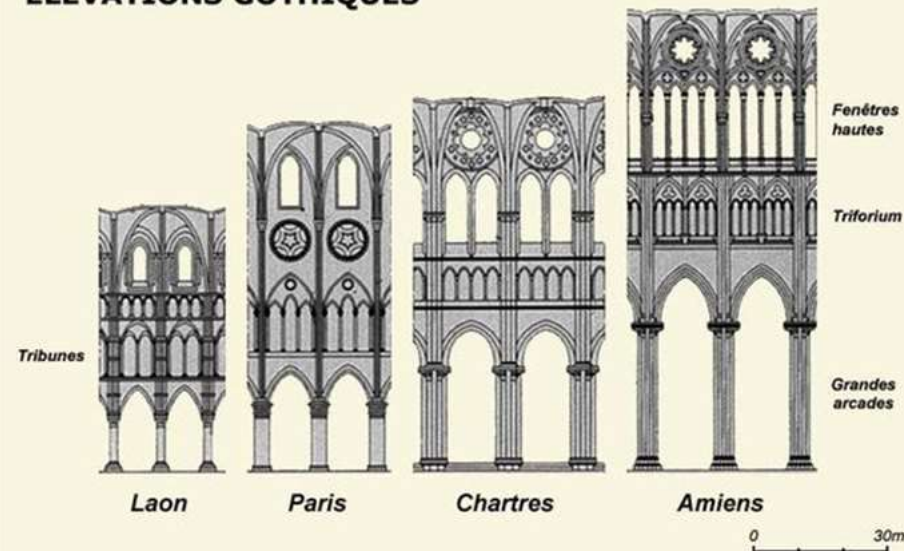


# Famous examples Gothic Cathedrals In France, Germany, England

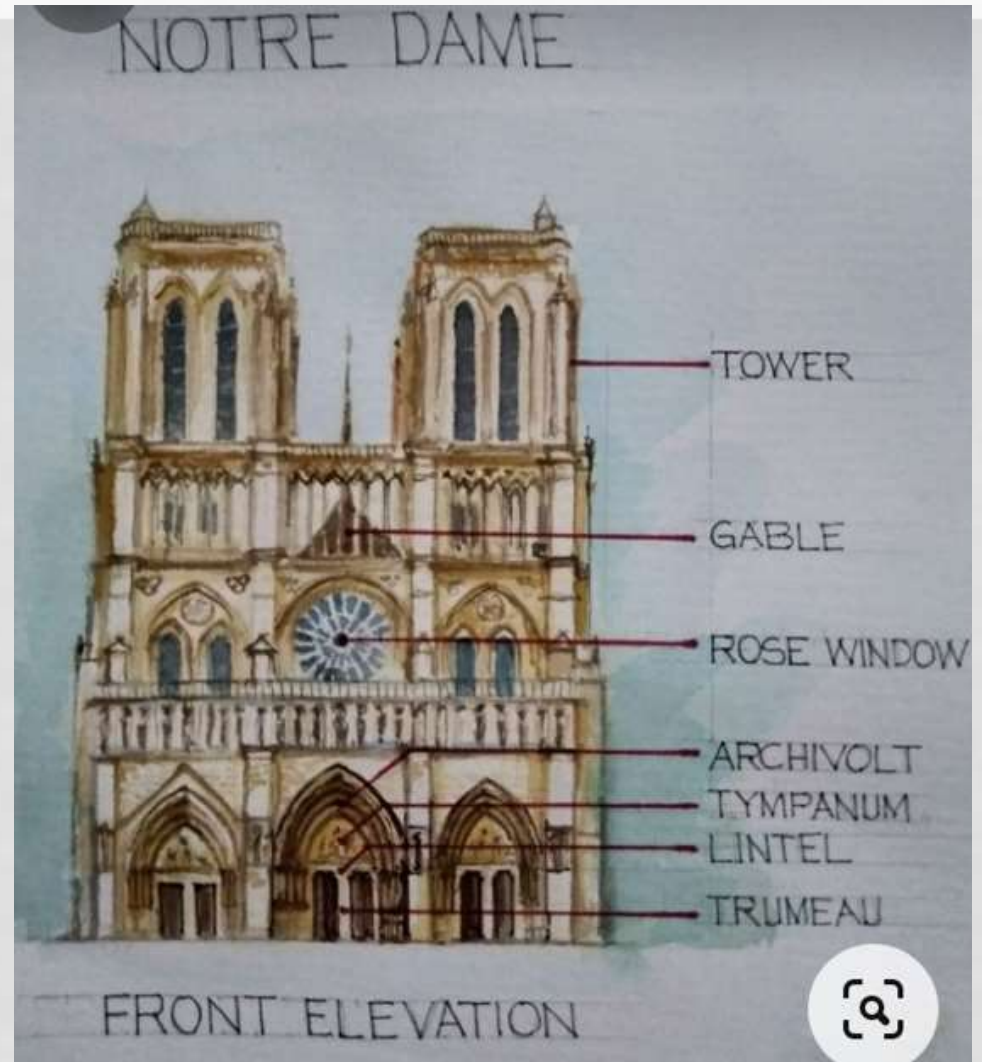
Increasingly taller cathedrals

Des cathédrales de plus en plus hautes

## ELEVATIONS GOTHIQUES



**European Middle ages**  
**Gothique Famous Cathedrals**  
**Notre dame de paris**





## CROISÉES D'OGIVES

< Centre (bois)

Cintrage



Pose des voûtes



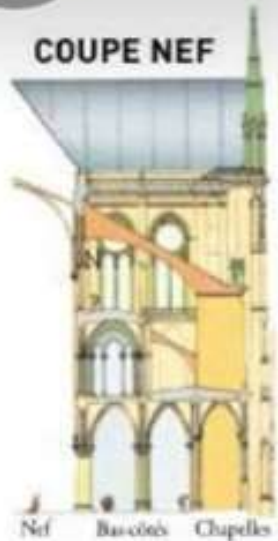
Pose des voûtains



Voutes sexpartites



## COUPE NEF



- Pinacle (en clocheton)
- Murs gouttereaux
- Fenêtres hautes
- Pinacle (en tabernacle)
- Arcs-boutants
- Contrefort
- Tribunes
- Terrasses

## PLAN GÉNÉRAL

Chœur

Abside

Déambulatoires

Chapelles

Chapelles rayonnantes

Croisée du Transept

Bras Nord et Sud

Nef

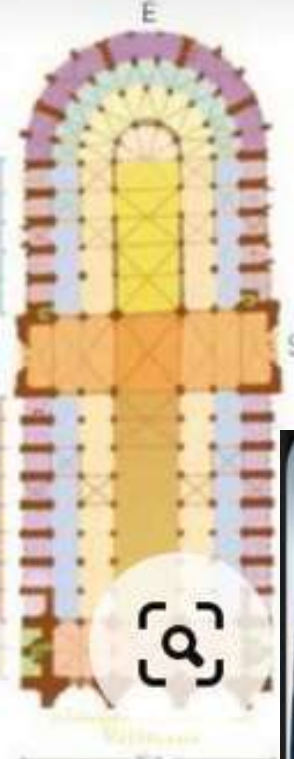
Vaisseau central

Bas côtés

(collatéraux)

Narthex

Escaliers



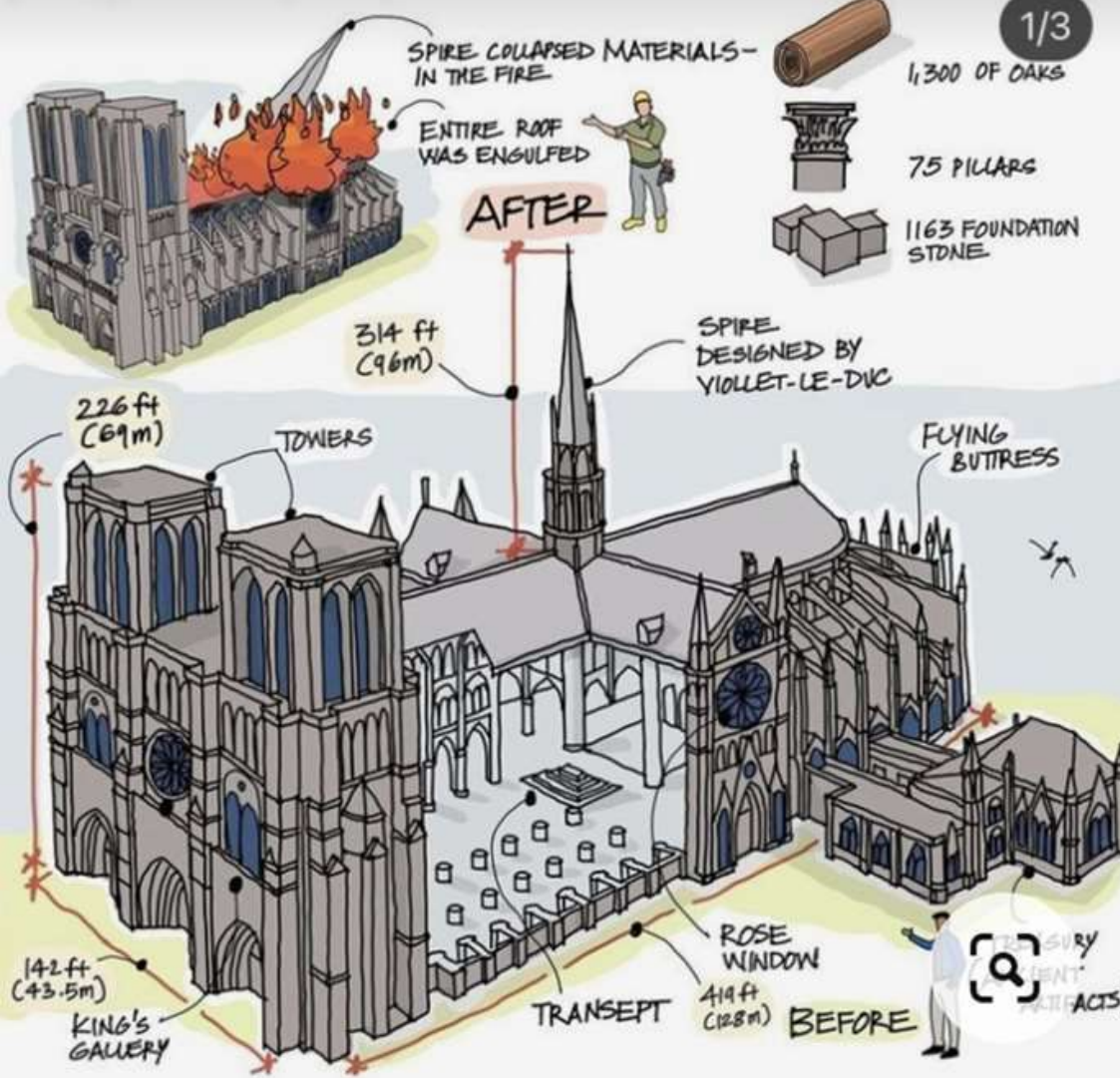
The Notre-Dame Cathedral in Paris is one of the most iconic examples of Gothic architecture in France. It was built between the 12th and 14th centuries. The cathedral is renowned for its magnificent stained glass windows, gargoyles, flying buttresses, and detailed sculptures.

European  
Middle ages  
Gothique  
Famous  
Cathedrals  
Notre dame  
de paris





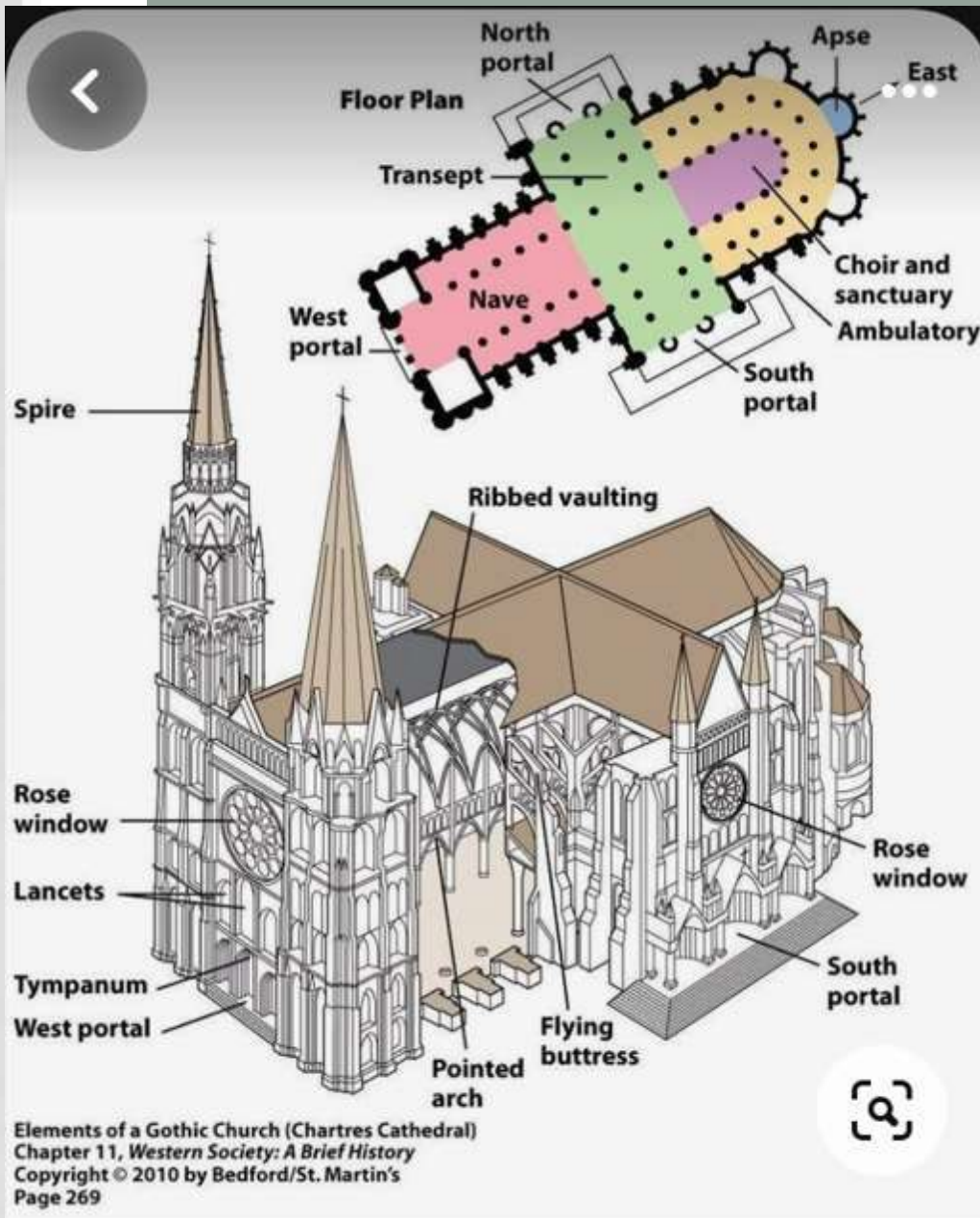
# HISTORY OF ARCHITECTURE - NOTRE-DAME CATHEDRAL @STWKECHES



**European Middle  
ages  
Gothique Famous  
Cathedrals  
Notre dame de paris**



## European Middle ages Gothique Famous cathedrals Chartres Cathedral



The Notre-Dame Cathedral of Chartres, located in France, is a masterpiece of Gothic architecture dating back to the 13th century. It is renowned for its magnificent sculpted facade, exceptional stained glass (**vitraux**) windows that depict biblical stories, and its imposing spire (**flèche**).



# European Middle ages

## Gothic

### The half-timbered house

#### The half-timbered house

##### La maison à colombage

The half-timbered house is characterized by the use of exposed wooden beams, called colombes, which create a structural and aesthetic framework.





## European Middle ages Romanesque and Gothic Later influences

Les **périodes après renaissance** vont mixer les influences antiques, byzantines, romanes et gothiques en même temps. (La période Renaissance a méprisé l'art gothique qui était considéré comme étranger à la tradition antique gréco-romaine.).



**Apparition du style néogothique au 18<sup>e</sup> s :** Le style néogothique est un style architectural né au milieu du xviii<sup>e</sup> siècle en Angleterre. Au xix<sup>e</sup> siècle, des styles néogothiques de plus en plus rigoureux et documentés visent à faire revivre des formes **médiévales** qui contrastent avec les styles classiques dominants de l'époque. Le mouvement néogothique (appelé aussi « Renaissance gothique », sur le modèle anglais du *Gothic Revival*) a eu une influence importante en **Europe** et en **Amérique du Nord** et il y a peut-être eu davantage d'**architecture gothique** construite aux xix<sup>e</sup> et xx<sup>e</sup> siècles qu'à la fin du Moyen Âge et au début de la Renaissance.

La cathédrale du Sacré-Cœur (actuellement bibliothèque) est un édifice religieux catholique de style romano-byzantin sis à Oran, en Algérie . La cathédrale fut édifée de 1903 à 1913.



Influences de l'art roman: les deux tours, le portail, l'arc plein cintre.

Influences de l'art gothique: les voutes sur croisées d'ogives, rosaces en façades.

## European Middle ages

### Romanesque and Gothic

### Later influences

**EXEMPLE:** L' œuvre inachevée d'Antonio Gaudí: La Sagrada Família Barcelone\_ Espagne.

Construction entamée en 1882.



Hauteur impressionnante, flèches, croisées d'ogives, rosaces, vitrail.

## Video Link

<https://www.youtube.com/watch?v=7TTVft2t2Yo>

**History of Arch Lecture 11 Byzantine Architecture**

[https://www.youtube.com/watch?v=9pXlw\\_3FIFg](https://www.youtube.com/watch?v=9pXlw_3FIFg)

**Romanesque Art and Architecture**

<https://www.youtube.com/watch?v=FmRVKHilUiA>

**Differences between Romanesque and Gothic  
Architecture || Medieval Art History**