

Early Christian, Byzantine & Gothic

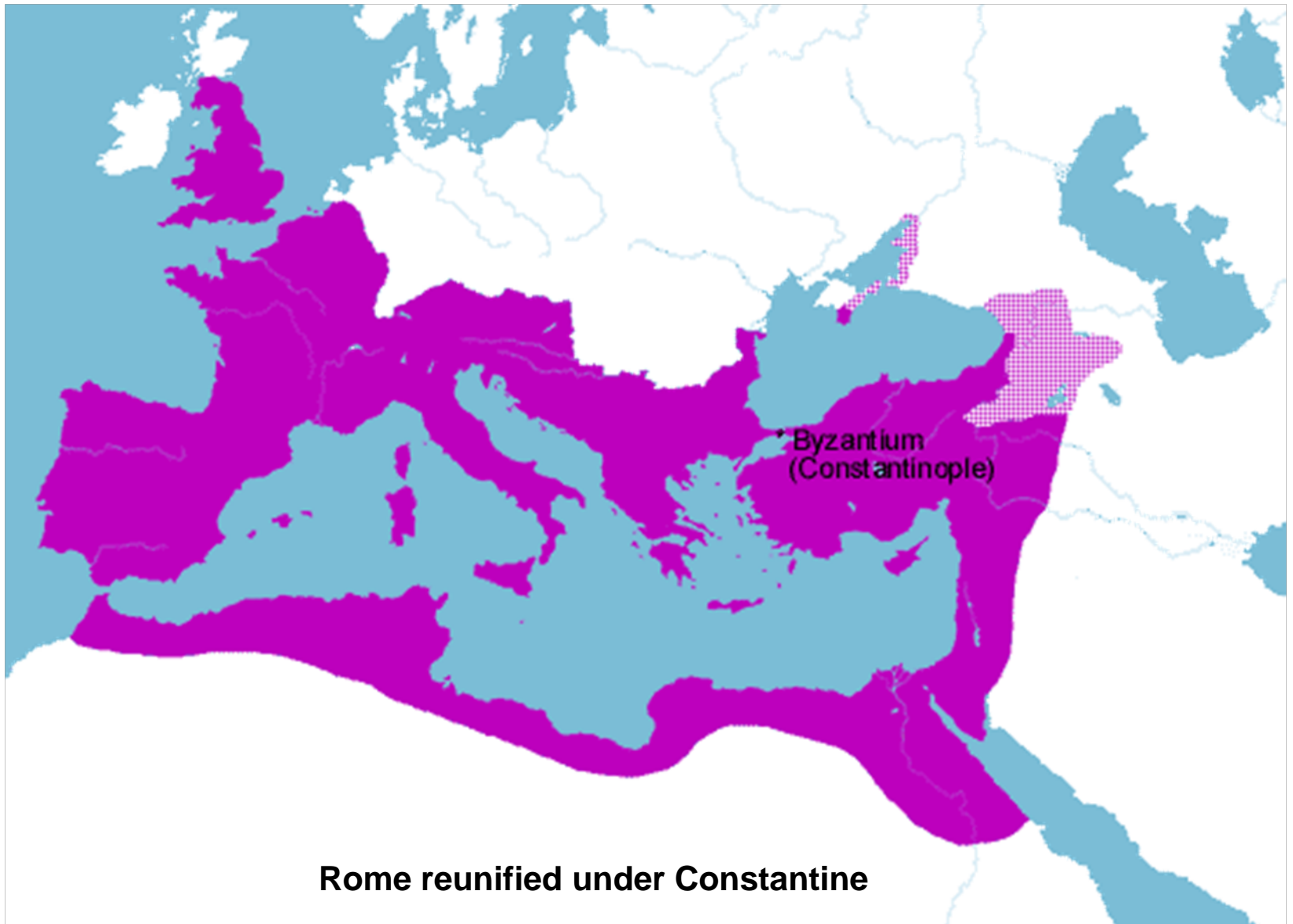
In the 4th c. C.E. the Roman Empire was at a turning point

- Christians had been outlaws in Rome since the reign of Augustus
- The Roman government killed Jesus Christ of Nazareth and persecuted Christians
- Christians could not be Roman citizens
- Yet, Christianity became stronger and more popular among the population
- There were many Christians throughout empire
 - Christianity is monotheistic (belief in one god)
 - They defied the traditions of ancient Roman polytheistic religion
 - Christians believed in an afterlife
- In a battle against one of his rivals, Constantine the Great (274 – 337 C.E.) had a vision a burning cross in the sky (“*In hoc signo vinces*” – “in this sign thou shalt conquer”)
- He had his army wear the Christian cross on their uniform, and defeated his rivals
- Constantine became the first Roman Emperor to tolerate the Christian Religion

Early Christian, Byzantine & Gothic

- Constantine created a law legalizing Christianity in the Roman Empire (Edict of Milan, early in 313 C.E.)
- This had important consequences for Rome, because it allowed Papal authority to flourish in Rome
- Temples to the Roman Gods were left to deteriorate or were used as a source for brick, marble and ornaments to create Christian Churches
- The Pantheon was changed into a Christian Church in 609 C.E.
- Constantine did not want to die without having the possibility of going to the Christian “Heaven”
- The defeat of his last rival for emperor allowed him to bring about sweeping changes to the Roman Empire beginning in 324 C.E. by creating a new capital of the Empire in Constantinople (modern day Istanbul, Turkey)
- The Ostrogoths, a barbaric eastern Germanic people, sacked Rome in 410 C.E. -
- Many Roman citizens moved to the Eastern capitol of Constantinople
- Citizens in Rome and Constantinople began to believe in different versions of Christianity
- They adopted separate calendars

Early Christian, Byzantine & Gothic



Early Christian, Byzantine & Gothic

The Roman Empire fell completely in 476 C.E.

- **There was a lack of strong succession by the Emperors**
- **There were assassinations of Emperors by would-be Emperors**
- **The Byzantine Empire in the East focused on itself rather than whole empire.**
 - **They realized that dispersal of the army left homeland defenseless**
 - **They strengthened their defensive operations to withstand pressures of the barbarians from the west**
- **The Ostrogoths sack Rome one more time and the Roman Emperor Romulus Augustus abdicated his throne.**
- **Italy was broken down into a series of states controlled by Gauls, Lombards, Goths, Huns and Byzantines**
 - **Christians outnumbered barbarians and pagans by far**
 - **The population of Rome in 320-34 C.E. was 1.5 million but declined to 20,000 by the 15th c. C.E.**
 - **There was no solid rule for entire country**

Early Christian, Byzantine & Gothic

The Rise of Christianity brought new leaders.

- **The pope centered in Rome was the head of the Christian religion on earth**
 - **Considered the earthly link to God**
 - **First Pope considered to be St. Peter**
 - **The Pope was elected Bishop of Rome by other bishops and priests**
 - **Popes that lived in the Empire until Constantine's reign lived in secrecy, went on missionaries to convert pagans, and wrote doctrine for people to believe**
 - **As emperors left Rome to settle elsewhere, the Pope took control within Rome**
- **Christianity in counter-culture**
 - **Much like the 1950's beatniks- Christians had to practice underground to avoid attention**
 - **They practiced their faith in the underground catacombs of Rome or outside of the city**
 - **Their religious rituals centered on their faith and not about the ceremony as was the Roman way.**

Early Christian, Byzantine & Gothic

The Rise of new leaders in Europe.

- The pope led the papal state
- Feudalism took over
 - Small kingdoms were created from Spain to Russia
 - The practice of marriage to form alliances was common
- Christianity was the predominate faith of all kingdoms
 - Hard to argue with the religion that ended the Roman Empire
- Insurgent Islamic invaders into Spain
 - Mohammedans challenged Christianity
 - More advanced culture
 - Pushed forward into France and Lombardy
- Charles Martel and his grandson Charlemagne
 - United all of the Frankish kingdoms under one rule
 - Fought wars to gain land, married to gain alliance
 - Charlemagne became the protector of Christianity
 - Defeated all who opposed the Pope and Rome

Early Christian, Byzantine & Gothic

Charlemagne

- Asked by the popes to drive the Moors out of Europe
- Knighted as Holy Roman Emperor by the Pope on Christmas Day, 800 C.E.
 - He became the personification of God on earth (just as was the Pope had been, also)
 - Allowed the Frankish Kings to tax in the name of God like the Pope.



Early Christian, Byzantine & Gothic

The Rise of the Vikings

Traders and Warriors from the North

- Invaded other lands for valuables and resources
- Scandinavia limited in resources
- Pagan by nature but adopted Christianity
 - After Invading lands that were Christian adopted faith to gain favor with the locals.
 - Settled in for years but left after exhausting resources
 - A lot of permanent camps ceased to be Viking
 - Blending of cultures spread Viking metal & wood working across Europe
- Vikings Occupied land from Turkey all the way to New Foundland.
 - First Europeans to get to New World
 - Fought wars with indigenous populations
 - Believed to have gotten as far as upstate New York
 - Last camp in Greenland invaded and destroyed by Inuit ascendants



Early Christian Buildings in the West

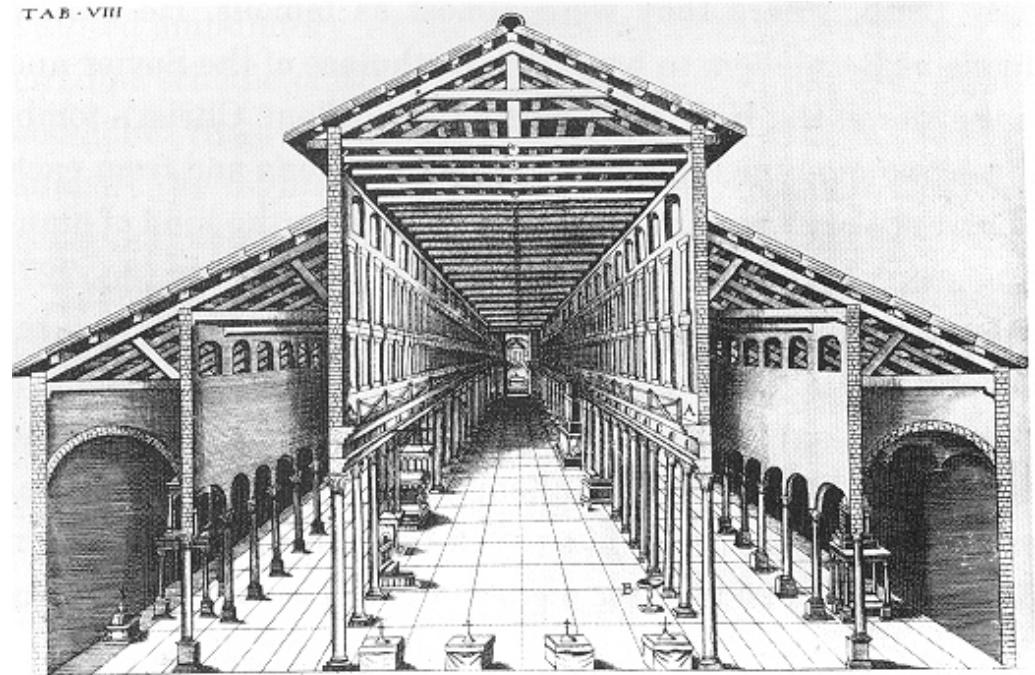
Early Christian, Byzantine, & Gothic

Old Saint Peters Cathedral, Rome, 333 C.E.

Saint Peters was designed for the Pope, the Bishop of Rome, to be the Papal Church.

This basilica had a large central “nave,” with a pair of side aisles. The roof structure was a wood truss with a coffered wood ceiling below. St. Peter, the first Pope, was believed to be buried there.

The interior was darkly lit from clerestory windows above. Early Christian buildings were experiments in light to show prominence or hierarchy.



St. Peters – Nave

Early Christian, Byzantine, & Gothic

- **St. Costanza, Rome, 350 C.E.**

Designed originally as the mausoleum for the daughter of the Emperor Constantine, it was converted into a church dedicated to the emperor who accepted Christianity into the Empire.

The domed nave was surrounded by an ambulatory. The stone tile and mosaic tile floors and wall brought color into the space.

The Church is austere. Unlike the temples of their Roman Predecessors, the early Christians had no money. They were not given opportunity to earn much money before the reign of Constantine because they were not allowed to be Roman citizens. So when they were free to build churches, at first they were simple or they converted other abandoned buildings into churches.

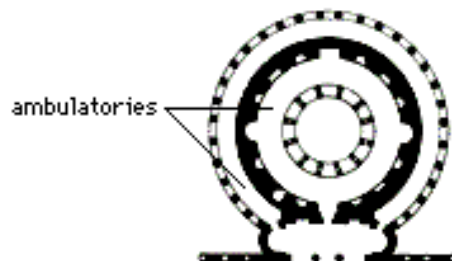


St. Costanza



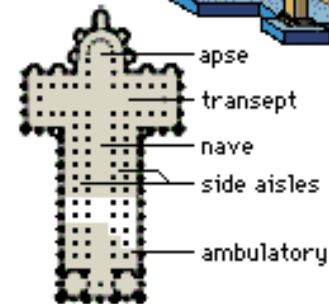
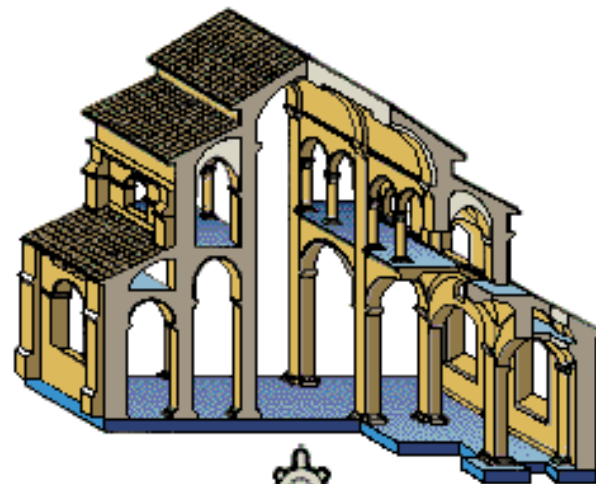
Mosaics from the interior of St. Costanza, Rome

Centralized Church



Floor plan for
Santa Constanza, Rome, Italy (40 350?)

Basilica



Floor plan for
St. Sernin, Toulouse, France (1080? - 1120)

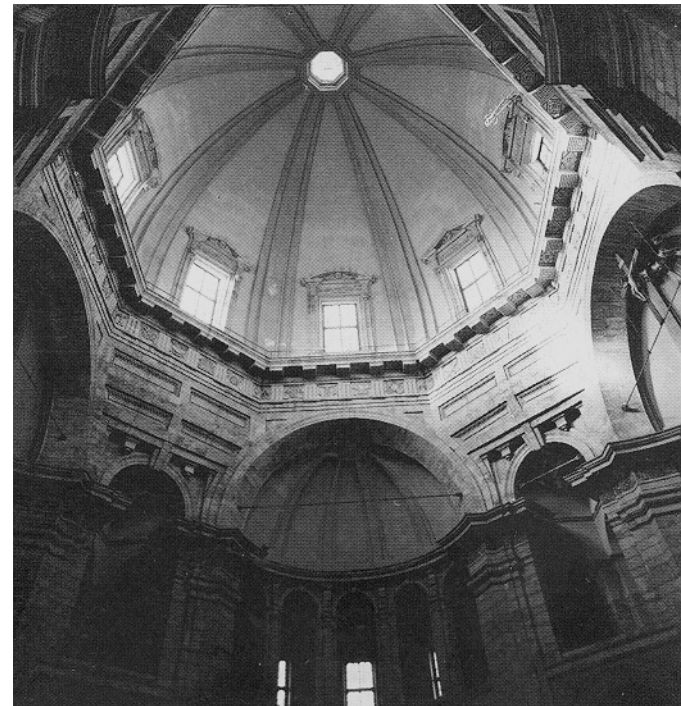
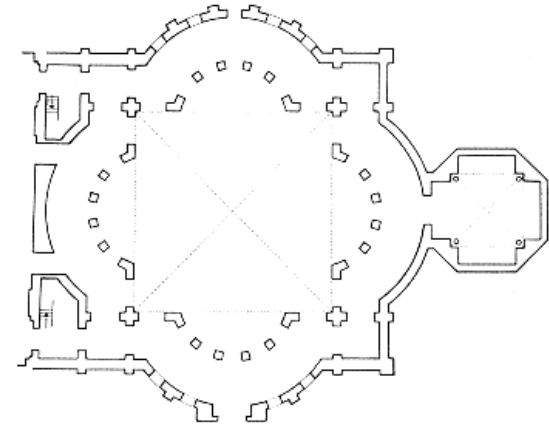
Centralized vs. Basilica Christian Church plans

Early Christian, Byzantine, & Gothic

St. Lorenzo, Milan, 370 C.E.

After 350 C.E., Milan became the Capitol of Rome for a period of time. Milan needed a Christian church appropriate to the seat of the empire.

San Lorenzo is planned as a series of overlapping circles that again overlap a square, similar to Hadrian's Villa. The piers rise up to a cornice within the central dome. The dome rises up beyond that. The apses are dedicated to holding religious artifacts, relics and shrines. This church influenced the later Michelangelo plan for the new St. Peter's Cathedral.

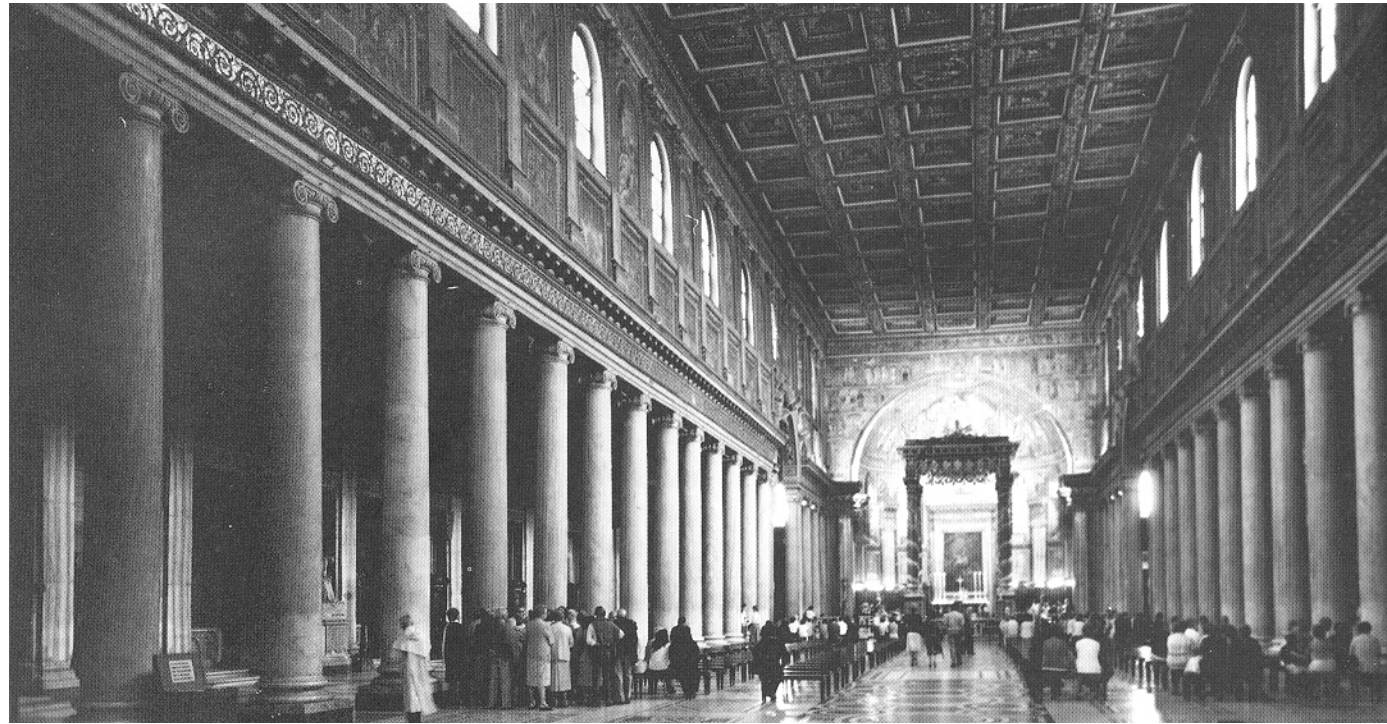


St. Lorenzo— Nave

Early Christian, Byzantine, & Gothic

- **St. Maria Maggiore, Rome, 432 C.E.**

Erected in Rome by Pope Sixtus III, the church was considered a revival of the Christian architecture in Rome. It showed the arts coming through with elaborate mosaics and carvings. It took the principles of Roman Construction and married them with Christian doctrine. This church has stone tile floors & walls. Ionic porticos separate the Nave from the Ambulatory. The ceilings is a highly ornate carved wood coffer.



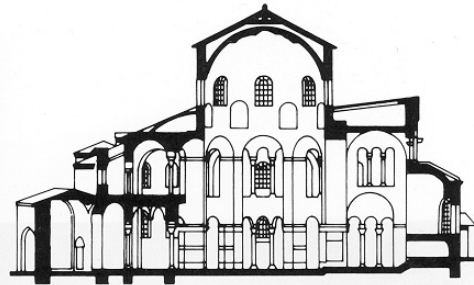
St. Maria Maggiore– Nave

Early Christian, Byzantine, & Gothic

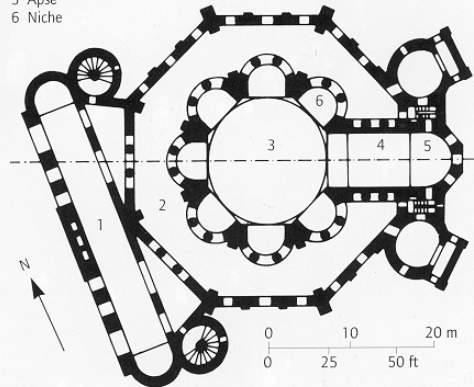
- **St. Vitale, Ravenna, 532 C.E.**

Emperor Honorius I moved the Capital of the Roman Empire from Milan to Ravenna on the Northwest Coast of Italy. So Ravenna too was then built up to house an Empire.

St. Vitale is an engineering marvel. Early Christians determined that domes were too heavy if solid so they built hollow ceramic units to create the dome. This reduced the weight and allowed the structure to go higher by reducing the mass of the surrounding walls.



- 1 Narthex
- 2 Ambulatory
- 3 Nave
- 4 Sanctuary
- 5 Apse
- 6 Niche



The Octagonal building housed a circular nave with a series of niches for relics and other ritual events. The sanctuary sat behind the altar which was the space for precious relics and for special rituals. The Apse at the end was opened up to bring in light to shine behind the priest, giving him a “heavenly glow” The interior had stone tile flooring plaster walls painted or with Mosaic tiles patterns or sculpture. The church due to its height could support two levels of clerestory windows.



St. Vitale – Nave



Byzantine Styles

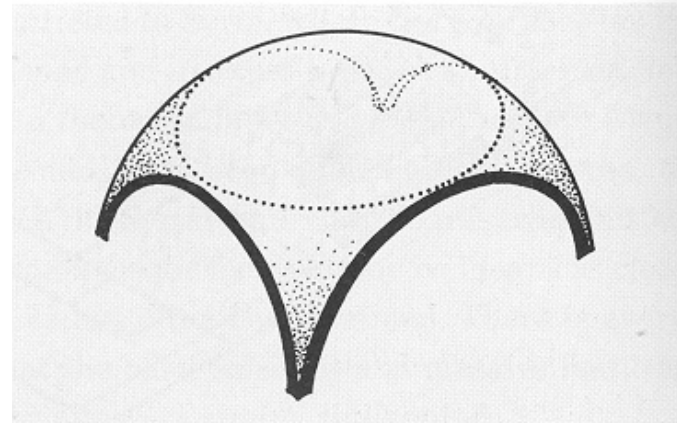
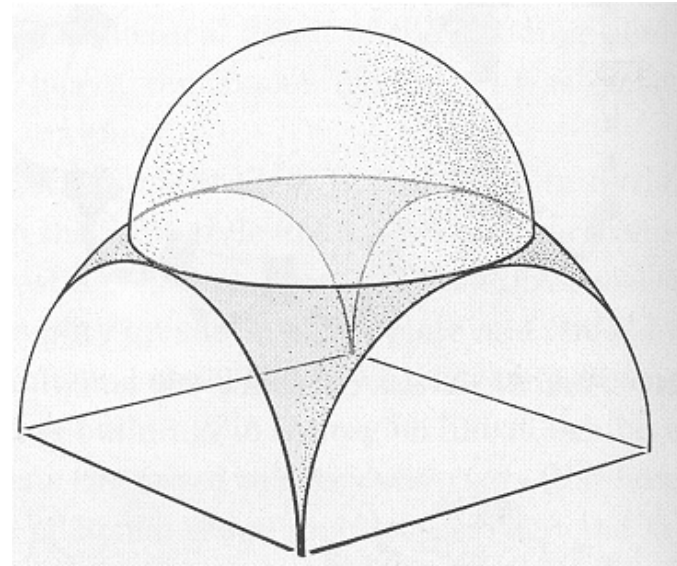
Early Christian, Byzantine, & Gothic

- **The Byzantine Dome**

The Eastern empire believed the central sanctuaries should be cubic in nature. But also believed that the spaces should be higher. So what was achieved was putting a dome on top of another dome.

The lower dome is a pendentive dome. It meets the ground on piers. Archways have been cut into the dome so as it transfers at four locations. This produces a curvilinear interior form.

The upper dome is a circular dome. When placed on top of a pendentive dome, the circular dome acts as a keystone for the other the arches of the pendentive dome.

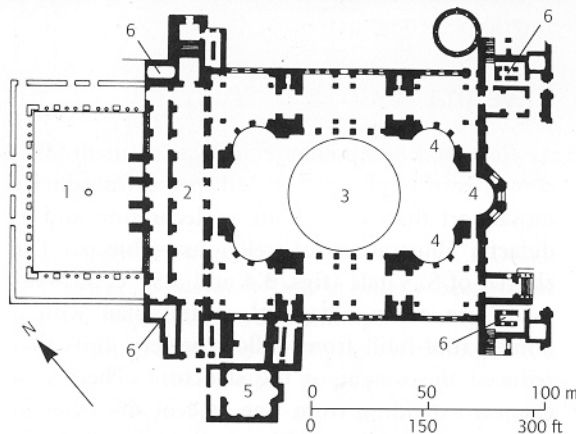


Early Christian, Byzantine, & Gothic

- Hagia Sophia, Constantinople 537 C.E.

Hagia Sophia is considered the ideal Byzantine model. Built by emperor Justinian of the Eastern Roman Empire, He hired Isidorus of Miletus and Anthemius of Tralles to construct this building.

The building is a 230 foot by 250 foot rectangle with a 100 foot square centered upon it. The pendentive dome rises 70 feet before the less the full hemispherical dome. Within the arch of the pendentive domes, half domes were created on the long side of the rectangle to create the nave.



Hagia Sophia - Nave

Early Christian, Byzantine, & Gothic

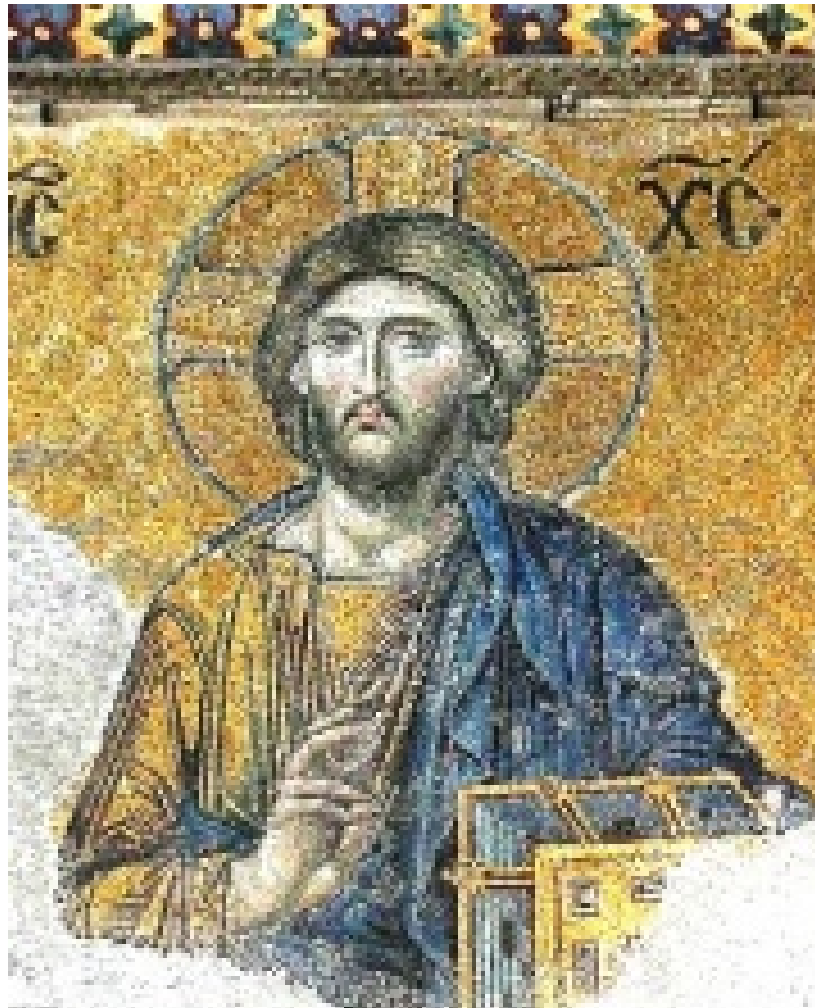
- **Hagia Sophia, Constantinople 537 C.E.**

Upon entering the church and marveling at its girth, which was even greater than that of King Solomon's temple in Jerusalem, Justinian reportedly exclaimed, "Solomon, I have outdone you!" The design traditions of both the Eastern states and Rome come together to create this structure.

The interior was covered with a gold mosaics on the vault and walls. The floors were marble tiles laid out in a geometric pattern. Most of the original ornament is covered with plaster today since it was converted into a mosque.

The design cleverly conceals the mass of its walls. The domes appear very light. The domes and half domes of the structure create hive-like interior spaces that bleed together to create a complex geometry of light and void.





Mosaic from Hagia Sophia



Styles in the Holy Roman Empire and France

Early Christian, Byzantine, & Gothic

- Aix-la-Chapelle, Aachen 798 C.E.

This complex was designed for Charlemagne in the capital of the Frankish Kingdom. The archs ascend five stories to a vaulted roof, creating a large volume over the alter. Throughout the palace, lighting was kept low.

Candles were used to light the dark spaces. This same light highlighted the limestone walls accented with Dark granite. The floors were tile in pattern.



Palatine Chapel – Aix la Chapelle



Throne – Aix la Chapelle

Early Christian, Byzantine, & Gothic



**Monastery of St. Martin du Canigou, France 1007-26 C.E.
Simplified Romanesque style**

Early Christian, Byzantine, & Gothic

- **St. Denis, Paris, 1135 C.E.**

The use of the pointed arch here for the first time pushed interior space vertically. The piers supporting the arches became thinner than those of the earlier Romanesque style. This also gave the interior a lighter feel. The French were good at bringing more light into their churches to highlight the stained glass windows which depicted religious symbolism.

St. Denis was is an example of Gothic design. The floor plan is a “western cross” with the nave longer than the transepts. The “Greek cross,” was used primarily in the eastern states. It has equal length nave and transepts in plan.

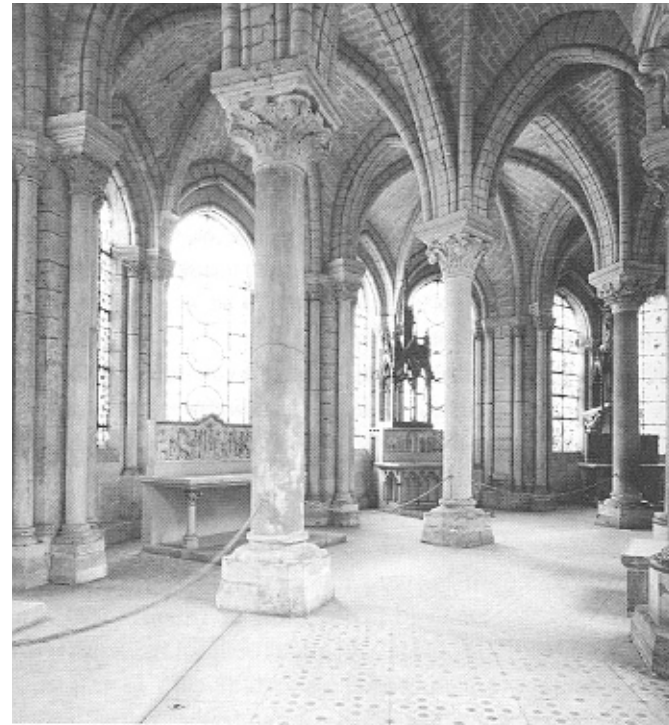
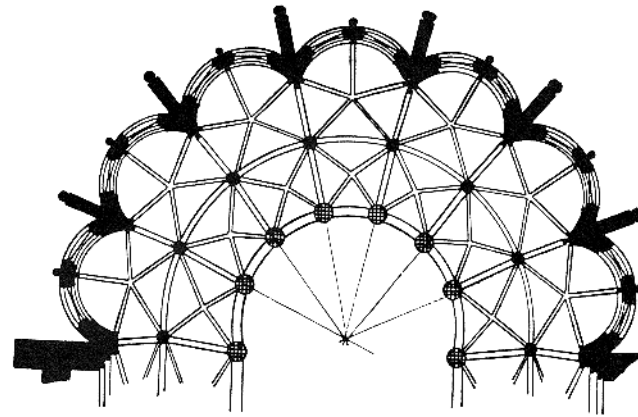


St. Denis - Nave

Early Christian, Byzantine, & Gothic

- **St. Denis, Paris, 1135 C.E.**

St. Denis had an “ambulatory: which is a continuation of the side aisles behind the sanctuary. The arched opening of the ambulatory provide back light for the ceremonies. Windows along the sides of the ambulatories and in the nave clerestories were a stark difference in the gothic versus earlier churches.



St. Denis - Ambulatory

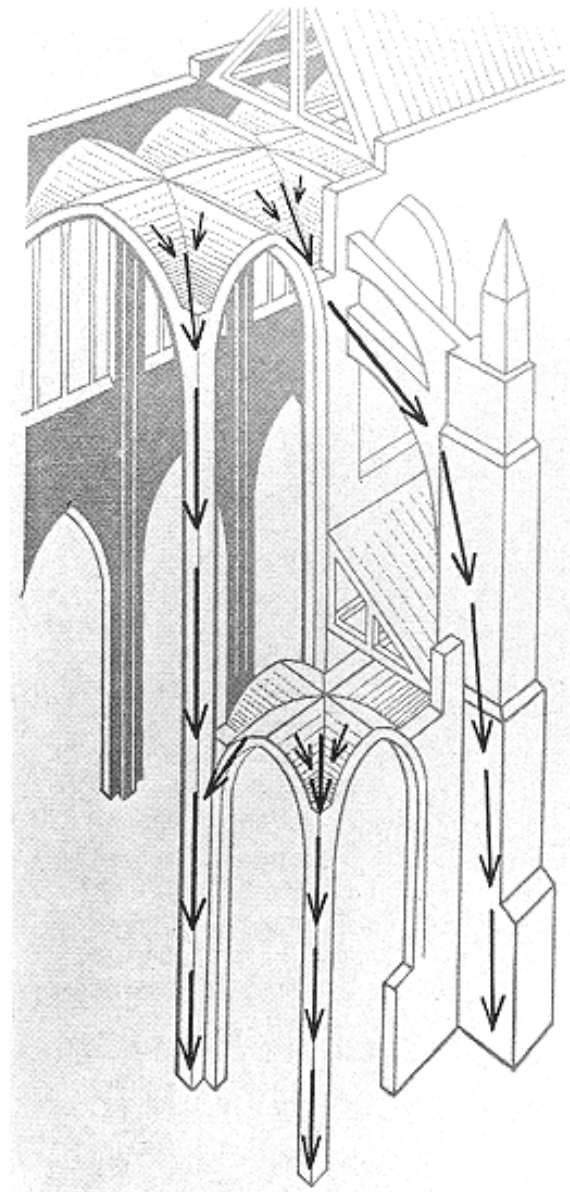
Early Christian, Byzantine, & Gothic

The Flying Buttress

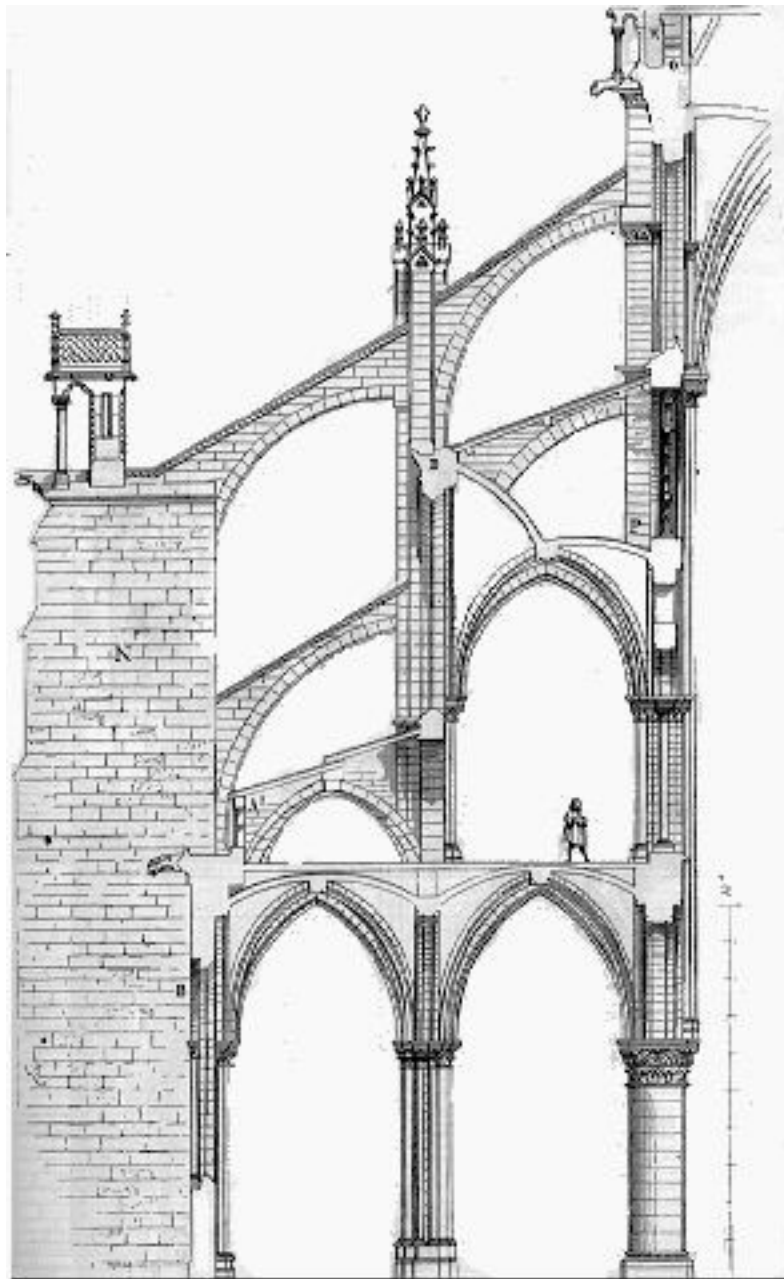
The ideas behind Gothic Architecture were straight forward; build better higher faster churches than they could in Italy. There was a high level of competition. Politics and Egos in France, England, & Germany primarily were the driving force. They wanted to be different from the Italian and Byzantine methods.

In order to go higher, there had to be a series of arches that could support and stabilize the structure. Forces on arches and vaults want to push outward. The Romans learned you could support an arch with other arches next to them. The other need for the flying buttress was to lighten up the structure and to build the vault higher. The more mass you have the more you have to build so it would take years upon years. By making lighter structures you could build faster and cheaper.

The buttress was an exo-structure. It carried the loads to the ground on the outside of the buildings. How this is important because it allowed the interior to be more open. The larger archways brought in more light and were an opportunity to for decoration. It allowed interior spaces to be much higher while being open. But the basic principles are the same as they were during Roman Times.



Flying Buttress





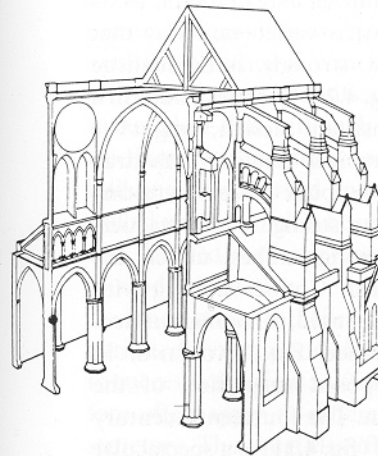
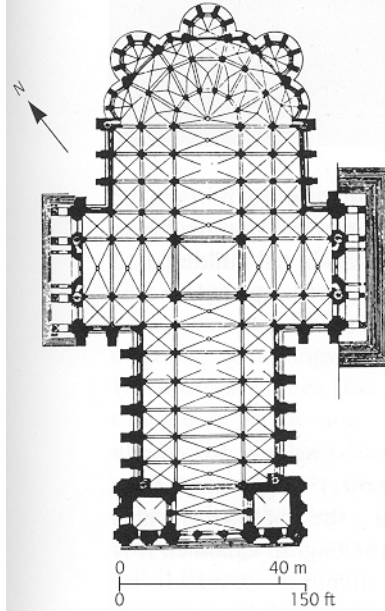
**Notre Dame
Cathedral, Chartres,
France, 1220 C.E.**

Early Christian, Byzantine, & Gothic

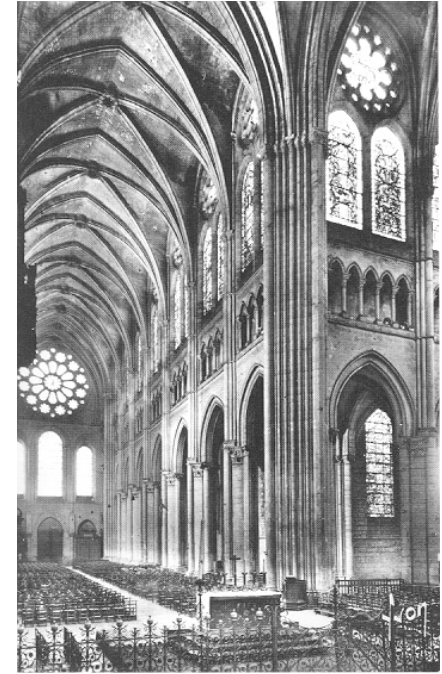
Notre Dame Cathedral, Chartres, France, 1194 - 1260 C.E.

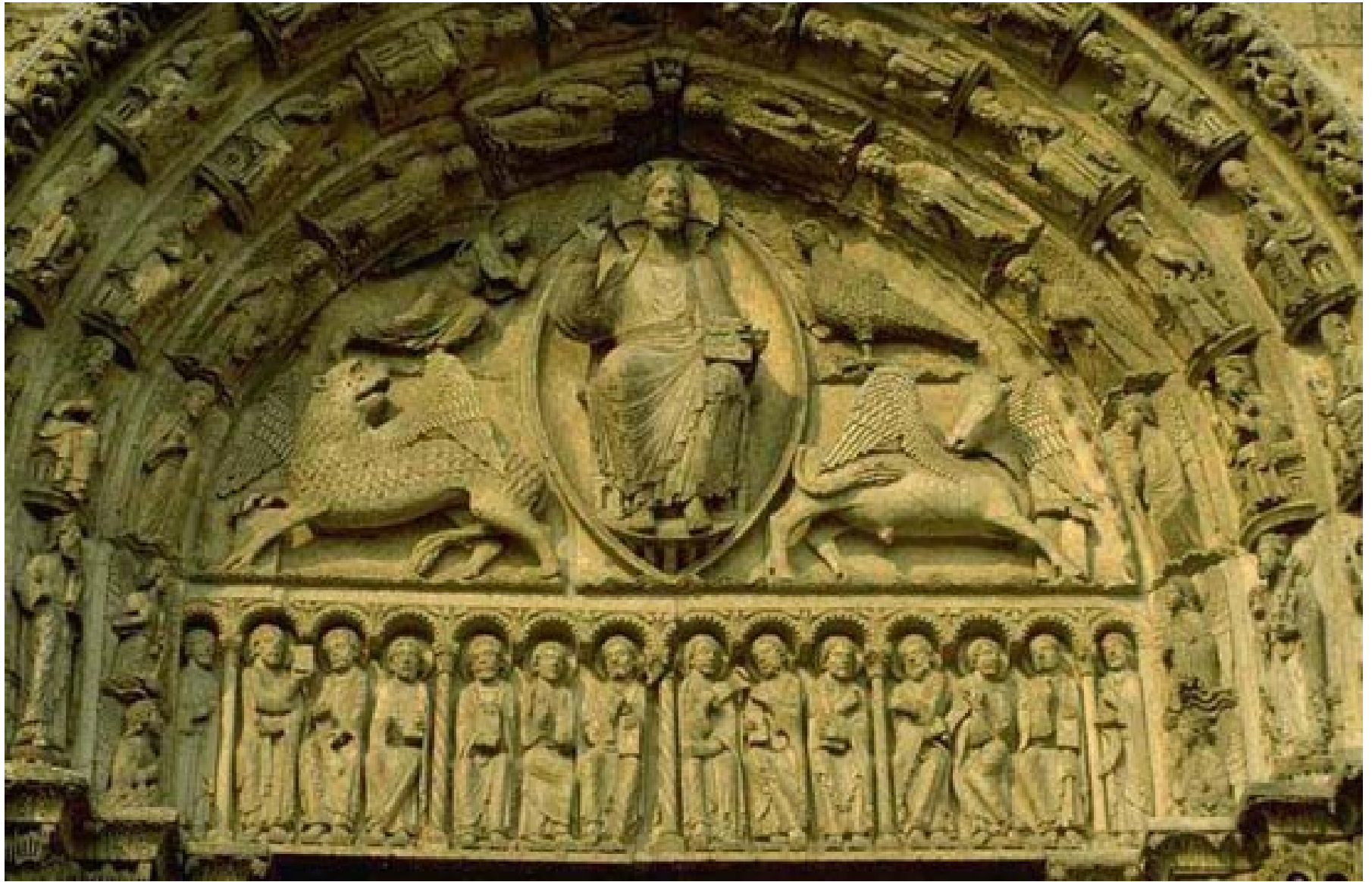
Chartres Cathedral is one of the best examples of French Gothic Architecture. The Altar was placed at the cross axis under the highest space.

The flying buttresses permit a tall space to be built with stained glass filled clerestory windows and rose windows. The plan was a western cross oriented in the east-west direction.



Chartres Cathedral





Chartres Cathedral high relief sculpture over the entry

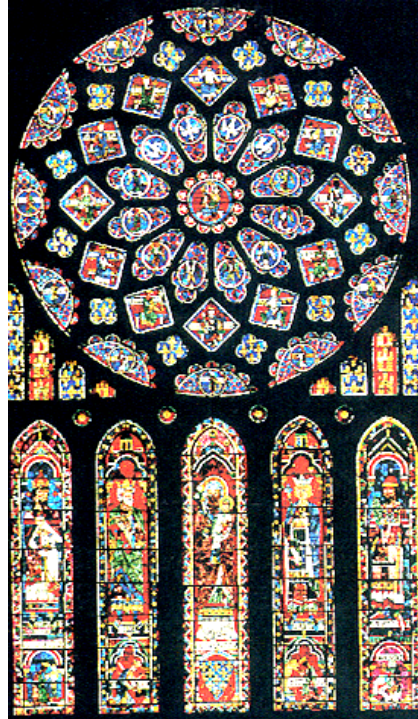
Early Christian, Byzantine, & Gothic

- **Notre Dame Cathedral, Chartres, France, 1220 C.E.**

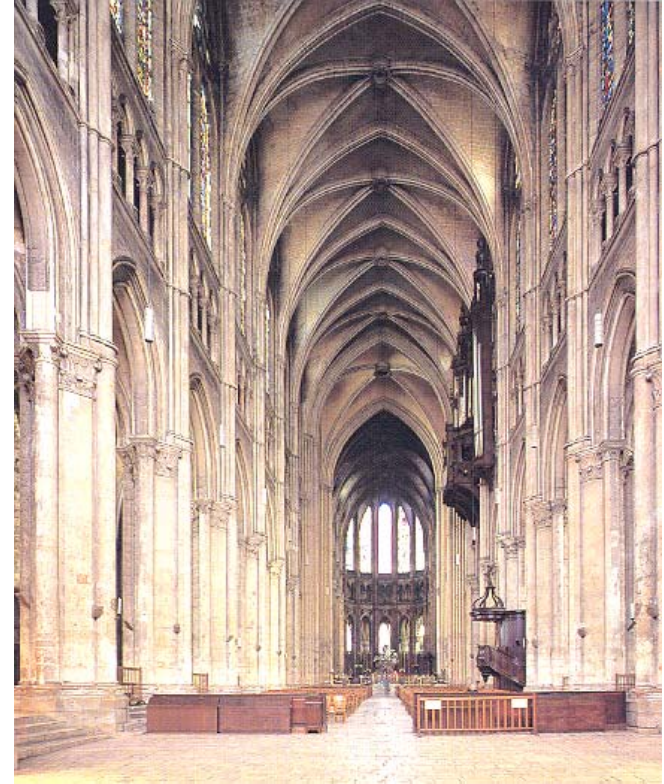
Chartres has a great rose window, 42 feet in diameter. The Blessed Mother is in the center with pictures of saints and apostles all around.

The choir was a two story apse with windows bringing in light from behind. The church had stone floors that were not as ornate as the Romanesque style. That would detract from the stained glass.

Most churches of this time never had furniture. Patrons stood during ceremonies. Furniture in churches was a later addition.



Chartres – Rose window



Chartres - Nave

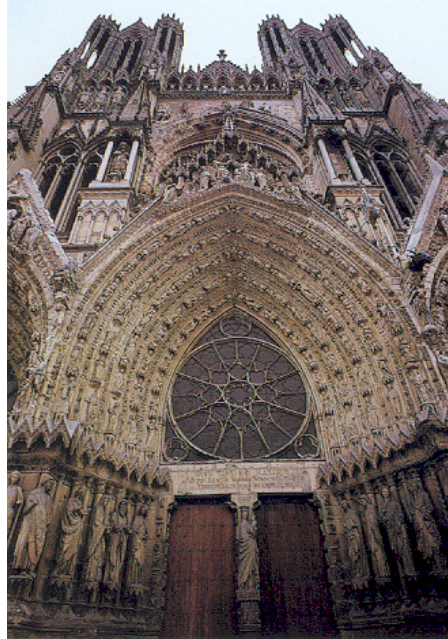
Early Christian, Byzantine, & Gothic

- Reims Cathedral, Reims, France, 1211 - 1390 C.E.

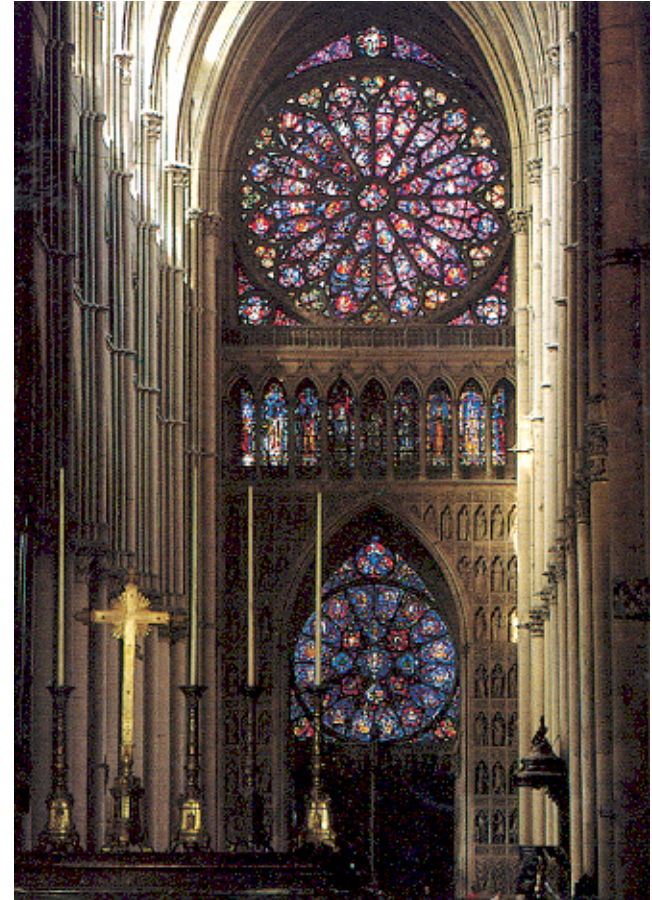
Reims is considered the prime example of High French Gothic. This church stood at 131 feet tall in the nave. It was highly ornate. This church was the coronation church of the French monarchy at the time. So the interior of the church was filled with ornament and sculpture.

This church was a reinterpretation of Chartres. It had semi-circular radiating chapels in the ambulatory.

Reims has two rose windows, one major and minor over the main entry on the major axis. The stone tracery in these windows was thinner and more intricate than any other previous to it.



Reims – Main entry



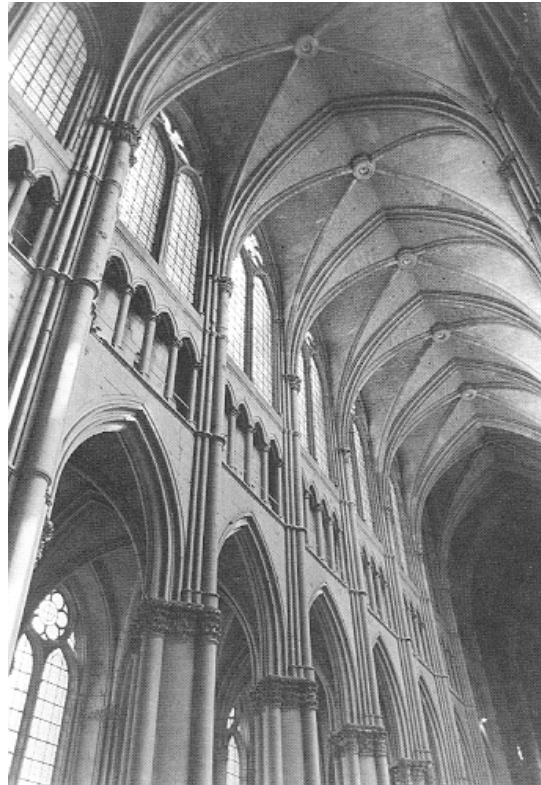
Reims – Rose windows

Early Christian, Byzantine, & Gothic

- Reims Cathedral, Reims, France, 1220 C.E.

Reims is composed of a series of ribbed groin vaults buttressed on the exterior. There is a clerestory of paired windows with rosette windows above.

The floors were stone. Stained glass provided color in the space.



Reims – Nave



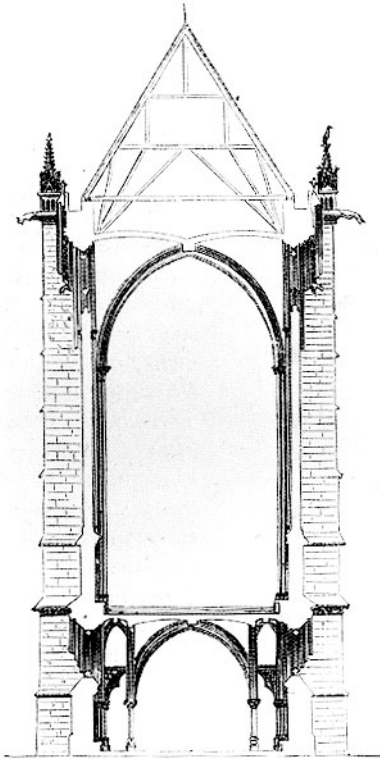
Reims – Ambulatory

Early Christian, Byzantine, & Gothic

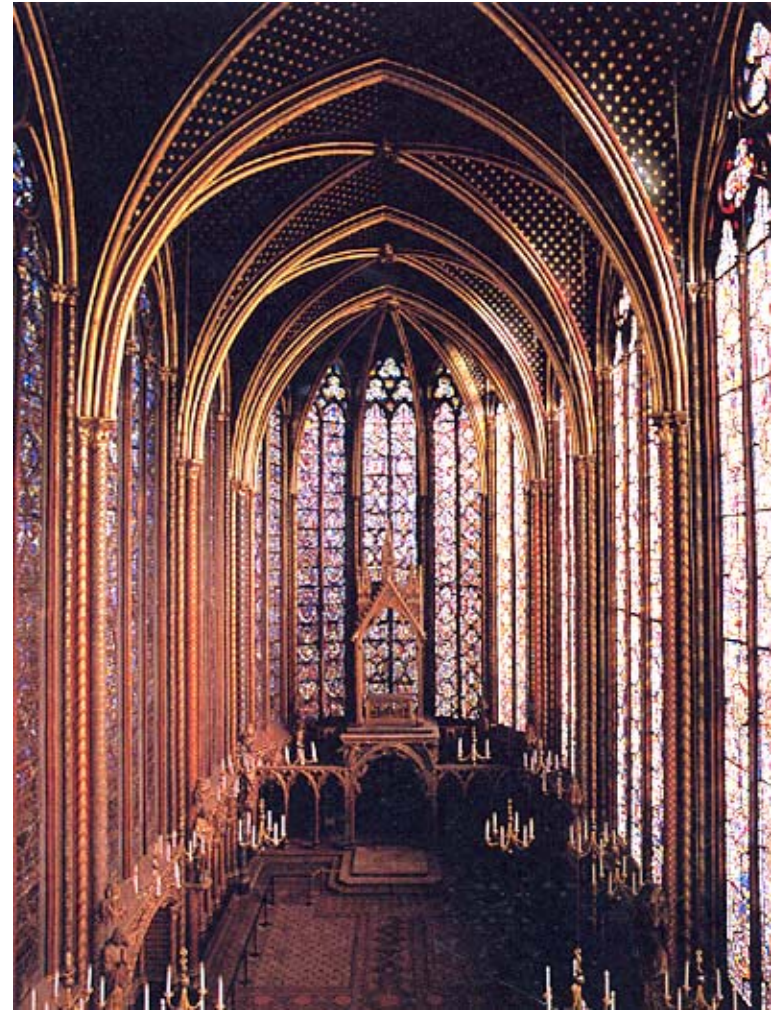
Sainte Chapelle, Paris, 1248 C.E.

Ste. Chapelle is an illusion in interior architecture. The whole interior space is not telegraphed to the outside and vice versa. By building the interiors out of wood and glass, greater heights could be achieved. This allowed for more stained glass and stone tracery. There is no ability to tell from the outside that there are two levels of sanctuary in the buildings. The lower level is a parish church.

Built for Louis IX, it served as the royal chapel in Paris. It also held relics of the Crown of Thorns and the pieces of the true cross. It had foliate ornament and sculptures of the Apostles throughout.



Ste. Chapelle – Section



Ste. Chapelle – Nave



English Medieval Buildings

Early Christian, Byzantine, & Gothic

Heddingham Castle, Essex England, 1140 C.E.

This hall as it remains today is a great example of secular life. Castles would have a great hall centered around a hearth. Long tables would provide seating for all. The walls were decorated with Tapestries depicting scenes of battles or heraldic themes. The floors were wood or stone. The ceilings are heavy wood timber.

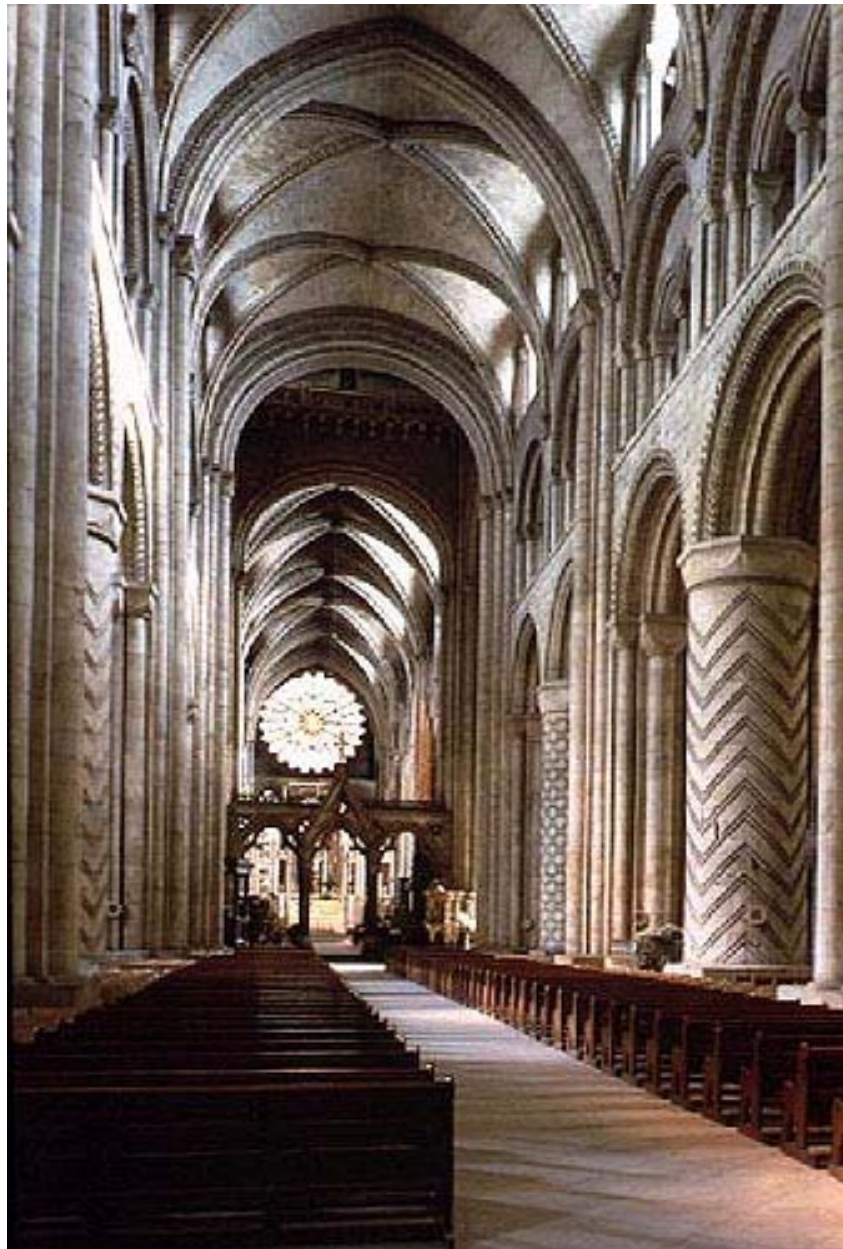
In Heddingham, the archway is Romanesque style – that is half round and heavy in appearance. The simple exaggerated archway separates the hearth from the dining area.



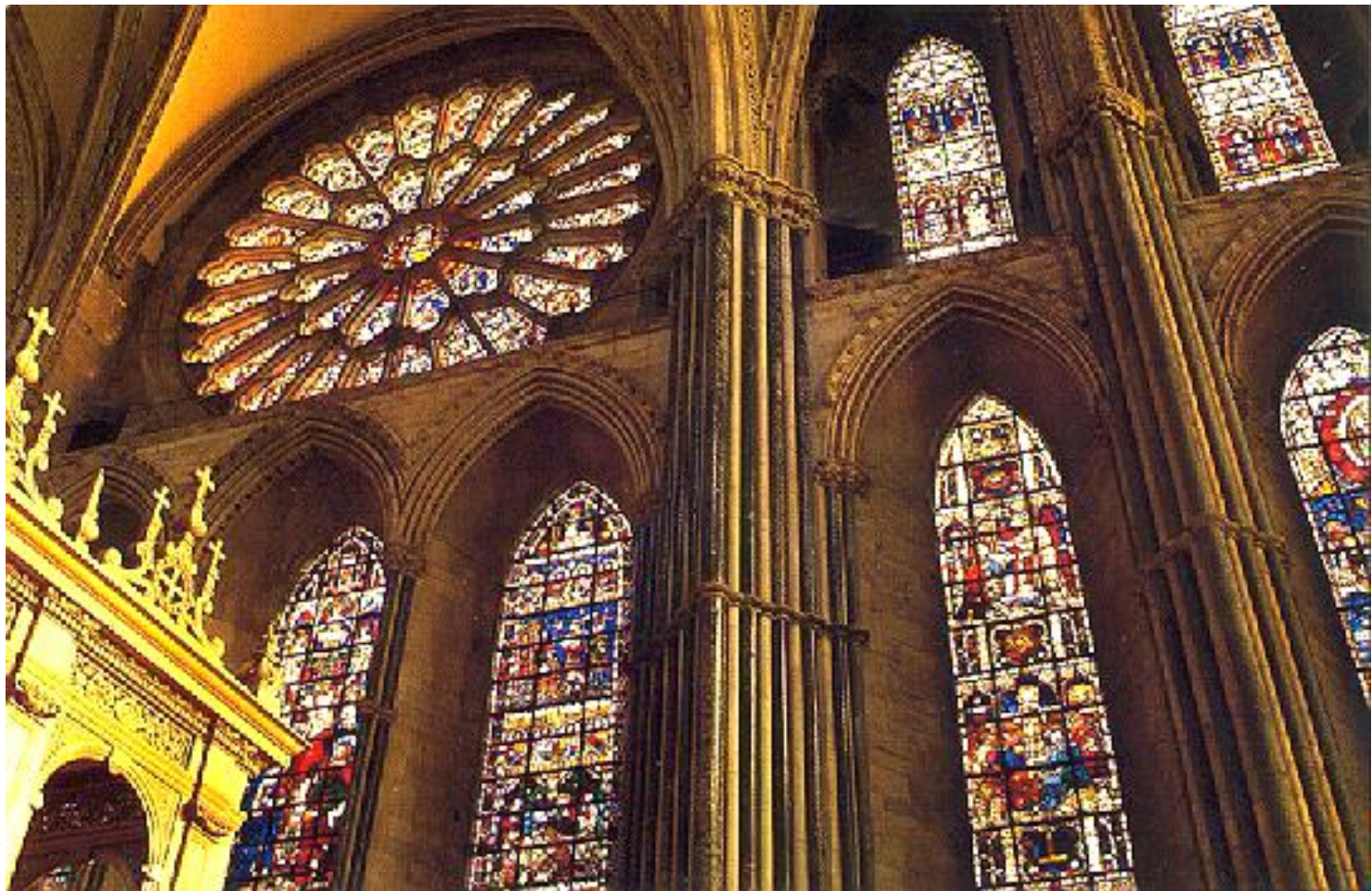
Heddingham Castle - Hall



**Great Hall in Penshurst, Kent –
showing Minstrel Gallery**



Durham Cathedral, 1133 C.E.

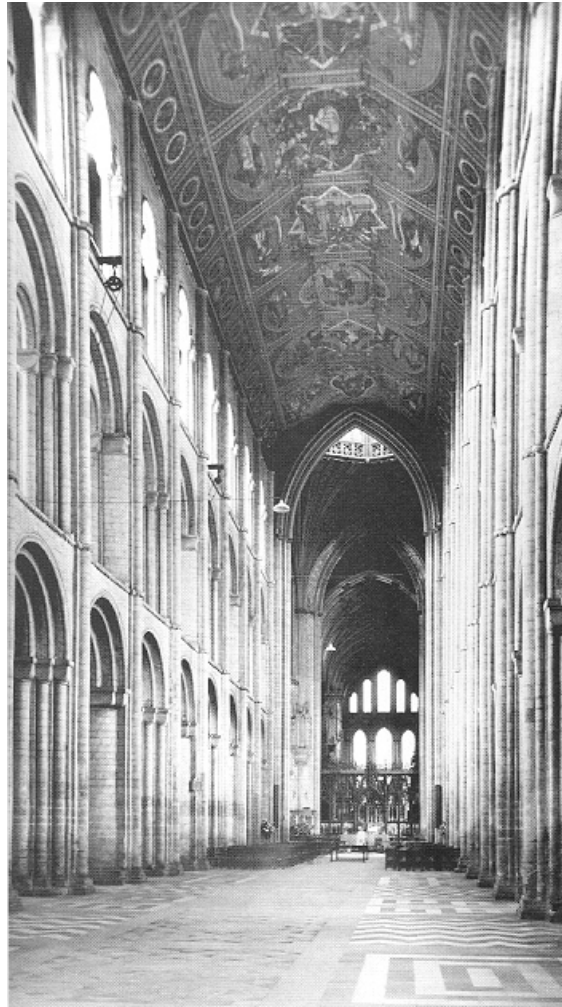


Durham Cathedral, 1133 C.E.

Early Christian, Byzantine, & Gothic

Ely Cathedral, Cambridge, England, 1090 - 1332 C.E.

The vaulting of the octagonal tower at the crossing of nave and transept is a multi-ribbed vault that terminates at an octagonal domed “lantern” (a cupola). The ceilings of the nave has elaborate paintings. The floors had geometric patterns in marble tile.

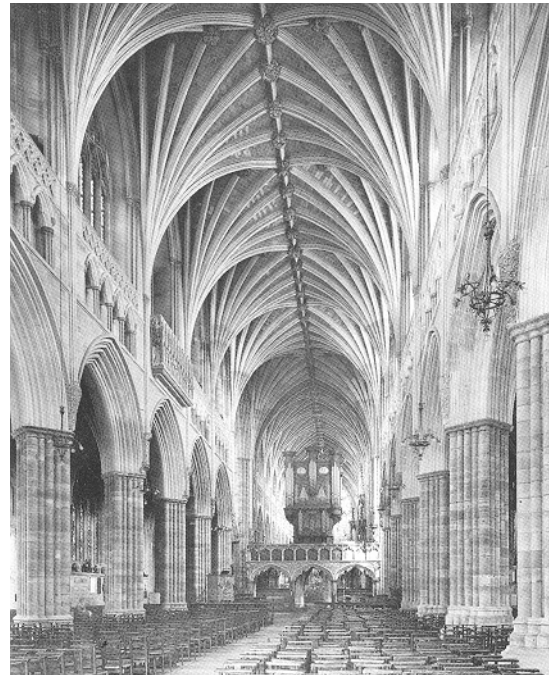


Ely Cathedral – The Octagon tower at the crossing

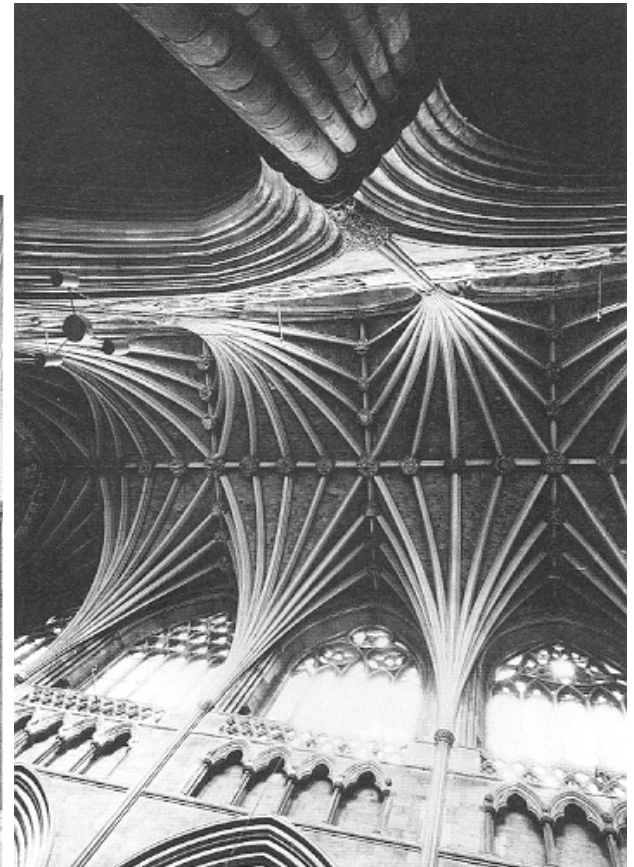
Early Christian, Byzantine, & Gothic

Exeter Cathedral, Devon, England, 1348 C.E.

Exeter is a good example of the English Gothic. Not to be outdone by the French or Germans, the English chose to make their vaulting more complex. Exeter has thirteen separate vaults springing from each pier. This gave a smaller scale to the interior.



Exeter – Nave



Exeter – Vaults

Early Christian, Byzantine, & Gothic

- Kings College Chapel, Cambridge, England, 1515 C.E.

This elaborate church used more complex stone tracery to cut through ribbed vaults, creating “fan vaults.” This broke down the scale even more. The large arched bays helped bring the interior space high. These arches created wider openings for the stained glass. Made from limestone, this church is in the typical English layout with a very long nave and short transepts. A carved wood “rood screen” separates the choir from the nave.

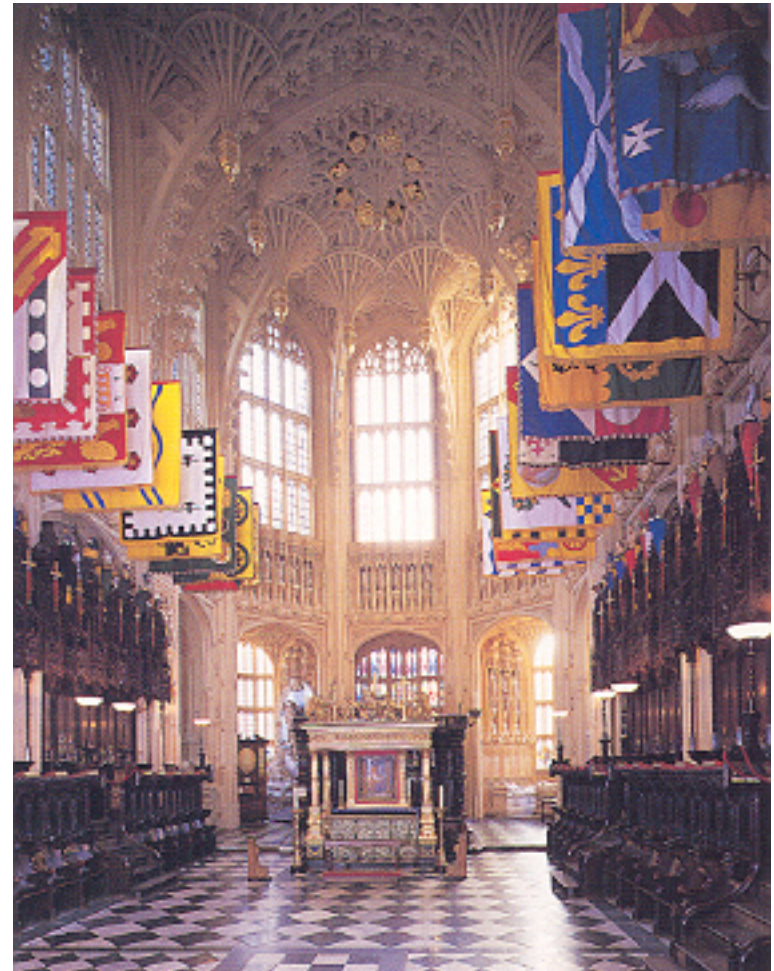


Kings College Chapel – Nave

Early Christian, Byzantine, & Gothic

Henry VII Chapel, Westminster Abbey, London, 1519 C.E.

This is the church of the royal family in London. This was a Perpendicular Gothic style with complex fan vaulting. The stone pendants with gilded metal bottoms add depth to the ceiling as well as being a source of reflection. Two levels of windows bring light into the space behind the Alter. The large clerestory band floods the nave with light. The floor is a checkerboard of black and white marble



Westminster Chapel – Nave



Other Medieval Buildings

Early Christian, Byzantine, & Gothic

- **San Miniato al Monte, Florence 1018 - 1062 C.E.**

This church is the best example of Florentine Romanesque style. The ceiling incorporated archways and painted wood trusses. The Romanesque style is a very decorative style with heavy ornament and pattern. There are inlays of green Prato marble against white Carrara marble. The floors were intricate mosaic tiles.



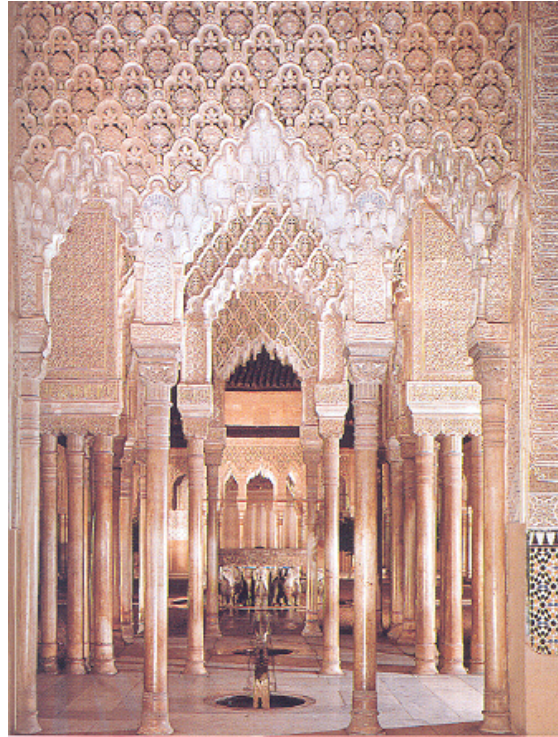
St. Miniato - Nave

Early Christian, Byzantine, & Gothic

- **Spanish Style**

After Charlemagne defeated the Moors in Spain, they all left Europe. Their Islamic design influence is easily seen in southern Spain. Spanish design of this period often used slim elements almost created to look as if they could not withstand the load. Unlike Christian churches, the interior of a mosque did not need to be oriented in one direction toward an altar. Mosques were for communal prayer.

Since representation of human, plant or animal are forbidden in the religion of Islam, geometric patterns were created to add ornament to spaces. This is why the mosaics in Hagia Sophia were covered over with plaster.



Court of the Lions –
Alhambra, 1354-91 C.E.



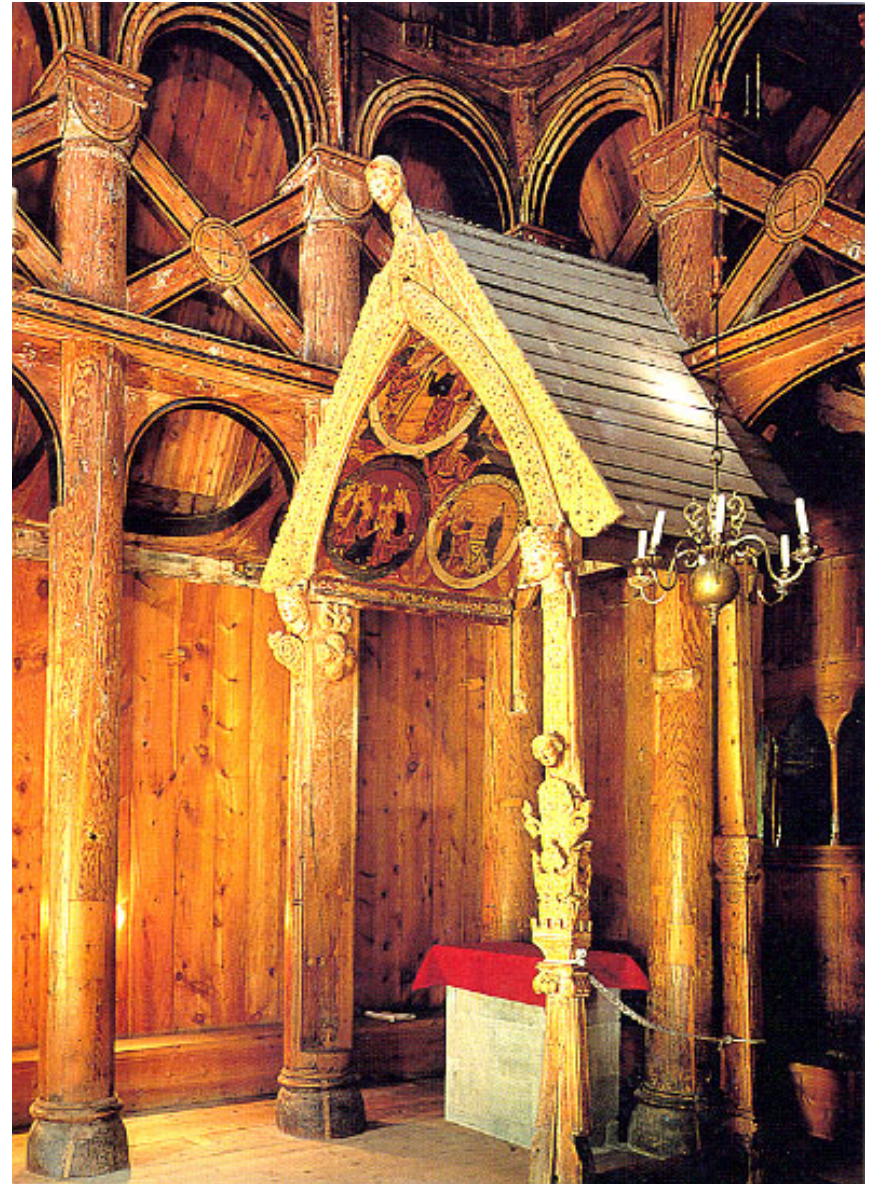
Great Mosque – Cordoba, 785-987 C.E.

Early Christian, Byzantine, & Gothic

- **St. Andrews, Borchund, Norway, 1150 C.E.**

This church is a good example of the Scandinavian design. The prominent material for construction was wood, and it was always meant to be seen. Stone was too difficult to quarry and there are shorter construction seasons in Scandinavia. Wood was plentiful and easy to construct.

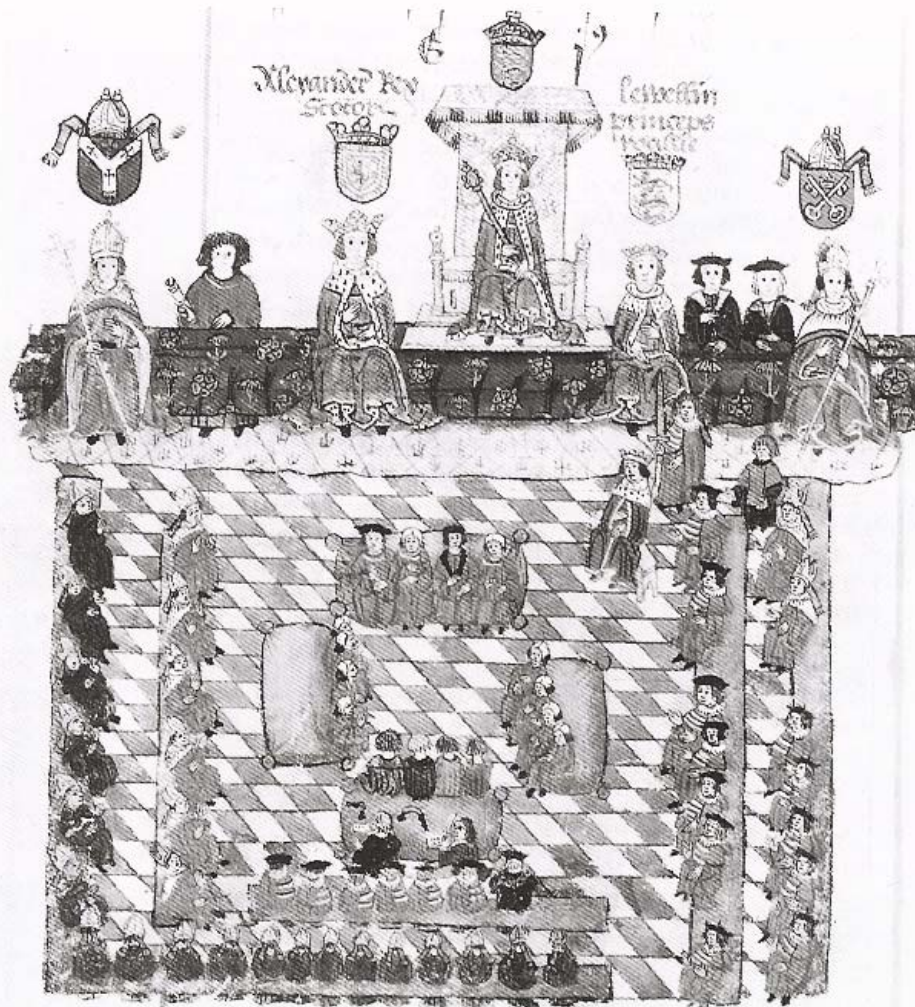
Scandinavia is known for its wood working ability. This church simulated the Romanesque use of the arch. The ornament is primarily the structure itself, although it was not uncommon to see ornately carved wood altars depicting kings, angels and saints.





Gothic Period Furniture

Early Christian, Byzantine, & Gothic



Wriothesley Manuscript, England, c. 1520 C.E.

This shows type of furniture and simplicity of furniture used in a very important interior – note King Edward I seated on a throne and judges seated on wool sacks in the center

Early Christian, Byzantine, & Gothic



Wriothesley Manuscript, England, c. 1520 C.E.

Judges seated on woolsacks in throne room (kind of like large beanbag chairs)

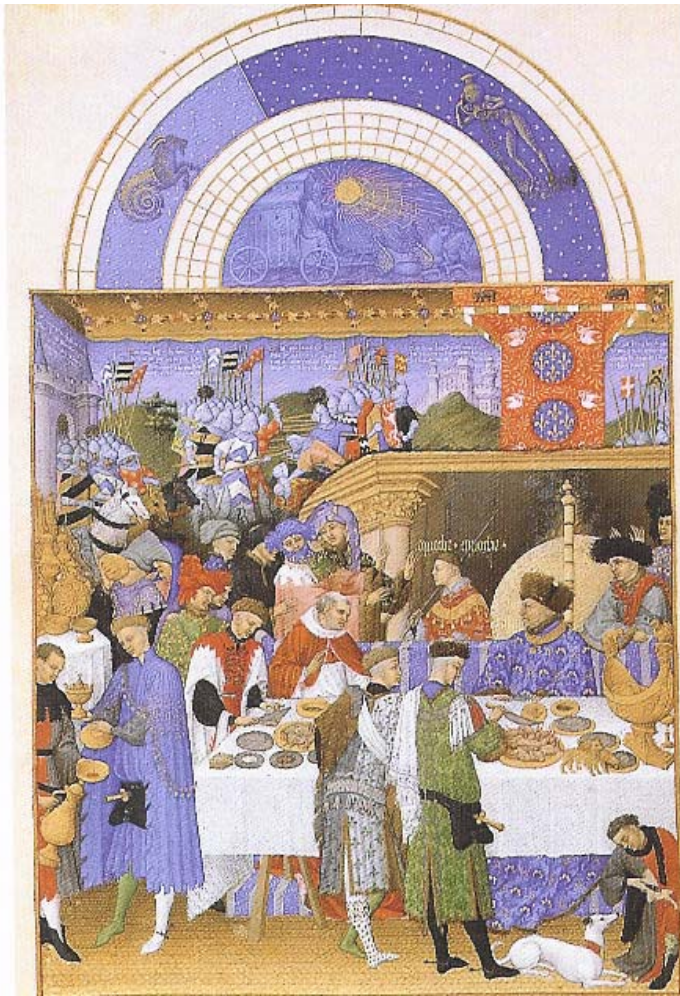
Early Christian, Byzantine, & Gothic



Manuscript illustration of Christine of Pisan presenting her poems to Isabel of Bavaria, c. 1300 C.E.

Note the rather uncomfortable looking chair at the back wall, the woven carpets, vaulted ceiling, window treatments, wall hangings and bed coverings – don't you dig the hats!

Early Christian, Byzantine, & Gothic



Très Riches Heures du Duc de Berry, 1416



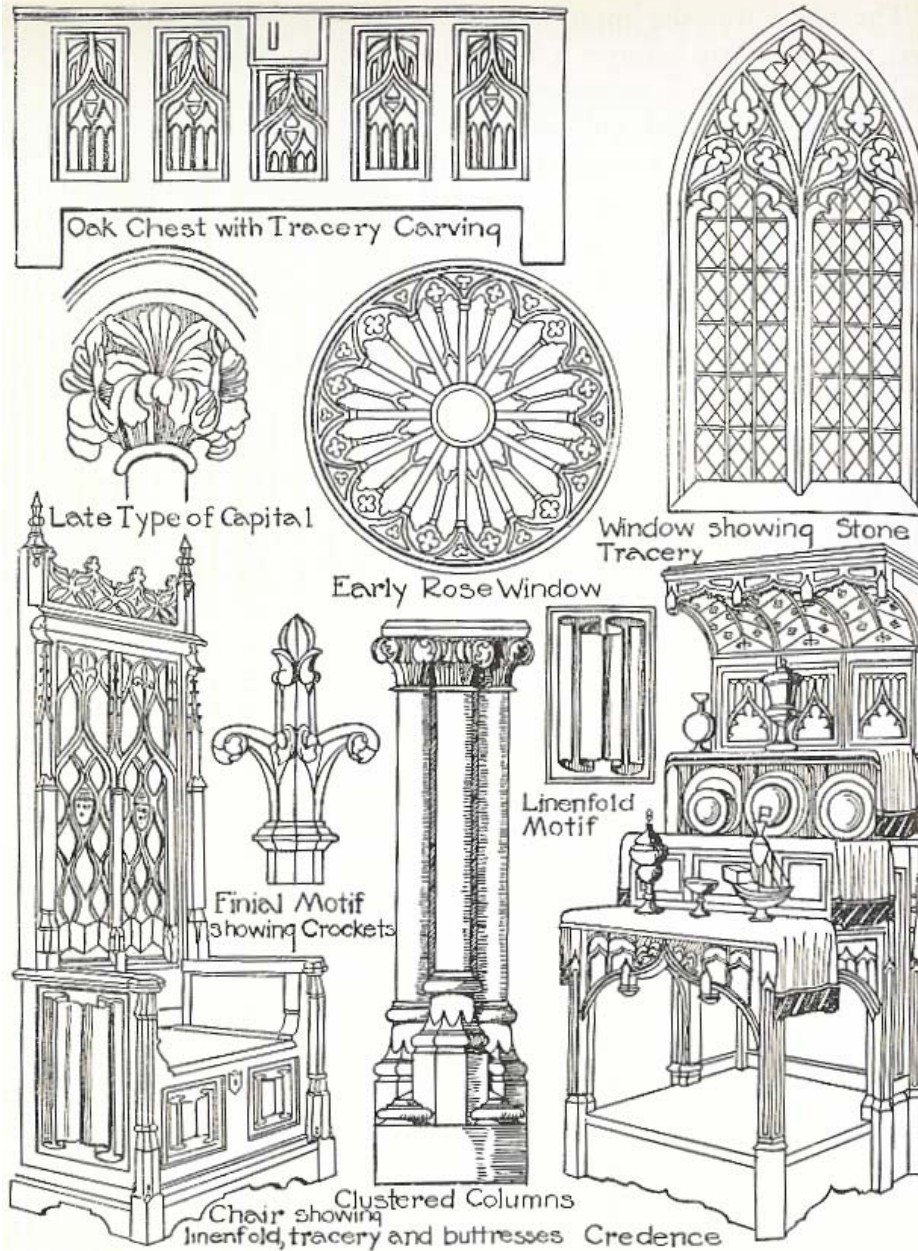
Early Christian, Byzantine, & Gothic



**The Miraculous Healing, painting
by Gentile Mansueti, 1502**



15th Century Room



Gothic period furniture



Gothic Bedroom

Early Christian, Byzantine, & Gothic



The Annunciation, Robert Campin, c. 1420 C.E.