Gothic Architecture 1140-1500

Influenced by Romanesque Architecture
While Romanesque remained solid and massive –
Gothic: 1) opened up to walls with enormous windows and 2) replaced semicircular arch with the pointed arch.
Style emerged in France
Support: Piers and Flying Buttresses
Décor: Sculpture and stained glass
Effect: Soaring, vertical and skeleton-like
Inspiration: Heavenly light
Goal: To lift our everyday life up to the heavens

Gothic Architecture 1140-1500

Dominant Art during this time was Architecture
Growth of towns – more prosperous
They wanted their own churches – Symbol of civic Pride
More confident and optimistic
Appreciation of Nature
Church/Cathedral was the outlet for creativity
Few people could read and write
Clergy directed the operations of new churches- built by laymen
Gothic Architecture 1140-1420

Began soon after the first Crusaders returned from Constantinople
Brought new technology: Winches to hoist heavy stones
New Translation of Euclid’s Elements – Geometry
Gothic Architecture was the integration of Structure and Ornament – Interior Unity
Elaborate Entrances covered with Sculpture and pronounced vertical emphasis, thin walls pierced by stained-glass

Gothic Architecture Characteristics:

Emphasis on verticality
Skeletal Stone Structure
Great Showing of Glass: Containers of light
Sharply pointed Spires
Clustered Columns
Flying Buttresses
Pointed Arches
Ogive Shape
RibbedVaults
Inventive Sculpture Detail
Sharply Pointed Spires
Gothic Architecture 1140-1500

Abbot Suger had the vision that started Gothic Architecture. He wanted to enlarge his crowded church, and have larger windows. He imagined the interior without partitions, flowing free. He reconstructed the Choir of his Church – St. Denis (1135-44). He used the Pointed Arch and Rib Vault.
St. Denis 1135-1144

Rebuilt the West Façade and installed the first Rose Window between two towers
St. Denis 1135-1144

- Replaced stone walls in chapels with stained glass
- Substituted thin columns for heavy piers in the ambulatory
The Pointed Arch

Typical Roman Arch could only span square bays
Pointed arch allowed for various sizes of bays (rectangular)
Shape could be varied, made flatter or more pointed
Exerted far less lateral force than the typical arch
The Flying Buttress

Gothic Vaults exerted tremendous forces both vertically and laterally. Downward loads were concentrated on piers, while the lateral loads needed to be resolved. Heavy pier buttresses at right angles to the exterior walls counteracted the lateral forces. Side Aisles were incorporated into the Flying buttresses.

Rib and Panel Concept

Concentration of forces at points of support rather than bearing walls.
System of vertical ribs or piers at regular intervals that supported the vaults above.
Advantages: Large windows, relatively light — skeleton-like.
The Flying Buttress
Notre Dame Begun 1163:
Continuous aisles that terminated in a Chevet (round apse)
Compact Cruciform Plan

Notre Dame Begun 1163:
Typical three story arrangement: Nave arcade, Triforium and the Clerestory

SENLIS
Notre Dame  Begun 1163.

Flying Buttresses
Notre Dame Begun 1163:
Western Façade with twin Towers- deeply recessed portals and Rose Window
Chartres Cathedral: 1194 - 1220

Known for its renowned stained glass and sculpture on the porches

Built to house the tunic worn by the Virgin Mary when she gave birth to Jesus

Chartres Cathedral: 1194 - 1220

Entire city worked on Cathedral

26,000 sf of Stained Glass
England:
Structural elements of the Gothic style were adopted earlier in England than anywhere else.

English Cathedrals were longer, narrow and lower than the French

Transepts were more pronounced

Apses were generally square

English Churches were more solemn
Salisbury Cathedral: 1220 - 1260

Completed in 40 years.

Double Transepts

Horizontal emphasis with Great Central tower over the crossing with spire was 400' tall

Nave is 84' tall
Salisbury Cathedral: 1220 - 1260
Salisbury Cathedral:
1220 - 1260
Italy:

Generally the character of the Architecture was still influenced by Rome

Internal tie beams were preferred to Flying Buttresses

Surface Decoration was preferred to structural articulation

Lower more horizontal manner

Flat pitched roofs

Small windows without tracery

Cathedral

Milan: Begun at the end of the 13th Century

Extremely lofty – rising 150’ at the nave and 100’ at the side aisles

Known as “Church of the Hundred Spires”

Over 6000 individual sculptures
Doges Palace (Venice): Begun at the end of the 13th Century
Lacy network of arcades and open stonework
Marks the highlight of Italian Gothic
Non-Ecclesiastical Building
Doges Palace

(Venice): Begun at the end of the 13th Century

Designed by Giovanni and Bartolomeo Buon
Doges Palace (Venice): Begun at the end of the 13th Century

King’s College Chapel, Cambridge, England: 1466-1515

Late Gothic Architecture: More geometric and machine-like than the more organic earlier Gothic works