



# Dr. M.G.R

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# ROMANESQUE

## UNIT – I

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- **MEDIEVAL AGES** refers to the **period between** the **fall of Rome** in 476 CE and the **beginning of the Renaissance** in the 14th century.
- The **end of Roman Empire** influenced the architecture of the Middle Ages in a significant manner.
- The essential aspect of this change was the **increasing influence of Christianity and Church** in political and cultural matters.
- The **Church** virtually became the **major power** to manage the life style of people of Middle Ages.
- **Kings, queens and other leaders** derived much of their power from **their alliances with** and protection of the **Church**.
- The Medieval period is generally considered to extend from the **fifth century to the fifteenth century** in Western Europe.
- **Types of architecture of the Medieval Ages:**
  - Religious architecture
  - Military architecture
  - Civic architecture

## INTRODUCTION TO MEDIEVAL AGES

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- **Religious architecture**

- **Church** was the **most powerful** in the medieval ages, holding more power than the kings and lords.
- To spread Christianity, it was necessary **to create Church buildings** where **large meetings could be held** easily.
- **To provide enough space**, early Christians opted for a **specific architectural design** which is known as **basilica**.
- The **Latin cross plan**, takes the **Roman basilica** as its primary model with subsequent developments.
- It consists of a **nave**, **transepts**, and **the altar** stands at the east end.
- Cathedrals **influenced** or commissioned **by Justinian** employed the **Byzantine style of domes and a Greek cross** (resembling a plus sign)
- The **altar's located** in the sanctuary on the **east side** of the church.

## TYPES OF ARCHITECTURE OF THE MEDIEVAL AGES

- **Military architecture**

- Medieval **secular architecture** mainly served for **defence**.
- In order to **protect their land** and to provide protection for serfs, Lords created **castles and fortified walls**.
- Castles and fortified walls provide the most notable remaining non-religious examples of medieval architecture.
- **Windows** gained a **cross-shape** for more than decorative purposes, they provided a **perfect fit for a crossbowman** to safely shoot at invaders from inside.
- **Crenellated walls** (battlements) provided **shelters for archers** on the roofs to hide behind when not shooting invaders.

- **Civic architecture**

- While much of the surviving medieval architecture is either religious or military, examples of **civic and domestic architecture** can be found throughout Europe.
- Examples include **manor houses, town halls, almshouses** and **bridges**, but also residential houses

## TYPES OF ARCHITECTURE OF THE MEDIEVAL AGES

- Medieval Ages can be studied under different time spans
  - Pre-Romanesque Era
  - Romanesque Period
  - Gothic Period
- Architecture of the Medieval Ages can be studied under different time spans
  - Pre-Romanesque Architecture
  - Romanesque Architecture
  - Gothic Architecture

## TIME SPAN OF MEDIEVAL AGES

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- The coronation of the holy roman emperor Charlemagne marked the beginning of a new era – **800 AD**
- Establishment of a **new central European state**
  - bound by both – **Church and Politics**
- **Carolingian Renaissance**- based on German culture allied with the Roman tradition
- **Monastic foundation**, supported by imperial patronage, expanded closely linked with **economic revival**
- Absorption of **Roman law into the monastic rule**
- New architectural problems were posed in the **building of religious houses**
- **Monasteries** tended to take the **lead in the changes of fashion and technique**

## BRIEF HISTORY

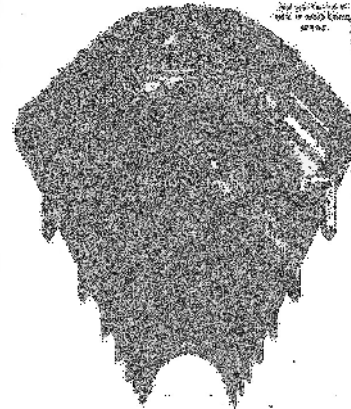
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- **Christianity** and **the influence of religious order** and with them the **education and culture** were spreading
- Construction of a **church or Monastery** was the signal for the **foundation of a town**
  - proof of the power of the church
- **Feudal system** of culture was seen in this period
- **Cathedral churches and Monastic building** were in an even **more significant** outcome of this period **than** were **the castles of feudal lords**

## CULTURE



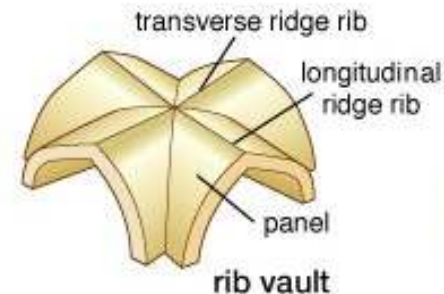
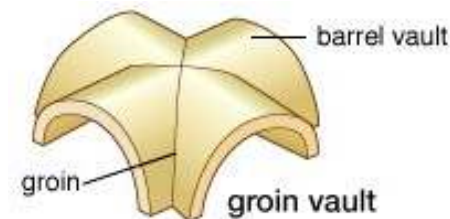
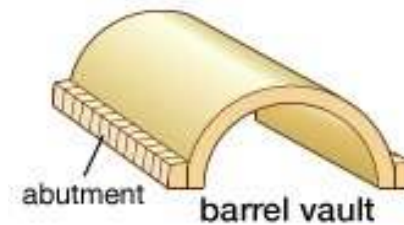
- The **design** owed much to **Roman models**
- **Marble facing** of the **rubble walls**, the application of **mosaic and wall painting** of the **roman era** were revived
- **Geometrical bands** around **recessed arches** were seen
- **Roofs** were initially mainly **timber framed**



# CONSTRUCTION TECHNIQUES

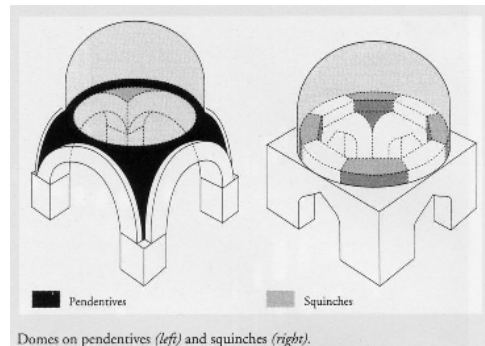
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- **Main Romanesque contribution** to the development of vaulting was the invention of **rib vaults**
  - **This was a groin vault with projecting ribs supporting or reinforcing the groin**
    - because of the diagonal of a square is longer than its side the diagonal arches or the ribs have a larger span but the same height and therefore assume a flatter segmented shape if the crown of the vault is to rise no higher than inside
- A **continuous, uninterrupted ribbed vault** was successfully built due to two important innovations
  - **oblong bay and**
  - **the pointed arch**



## CONSTRUCTION TECHNIQUES

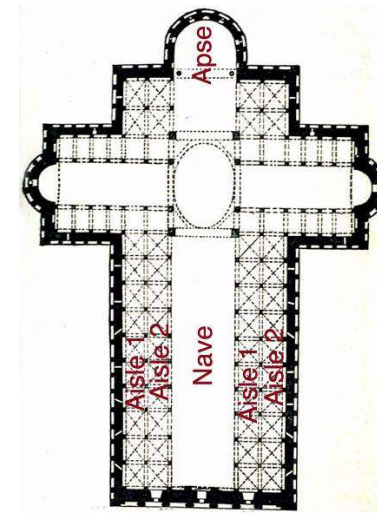
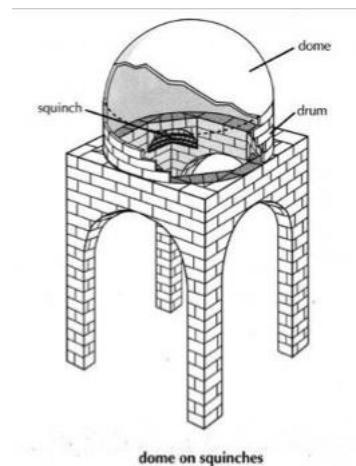
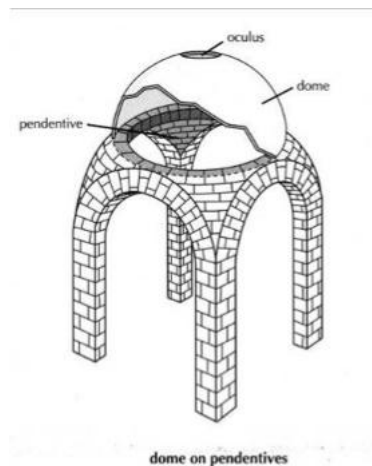
- By using an oblong bay, with **short sides contained in the nave walls**, the difference of **span** between the diagonals and the long side is **considerably reduced**
- The problem of **placing the dome** over a square plan was solved with the **use of pendentive**
- The Romanesque domes on **pendentive and squinches** were observed



# CONSTRUCTION TECHNIQUES

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- **Pendentives** - a curved triangle of vaulting formed by the intersection of a dome with its supporting arches.
- **Squinches** – a little arch or vault spanning the re-entrant angle of a square bay
- **Four Squinches** reduce the **square bay to an octagon** which is sufficient **base for a dome**
- For this reason **domes were octagonal** than circular in plan
- **Domes** were normally **used over crossing**



# CONSTRUCTION TECHNIQUES

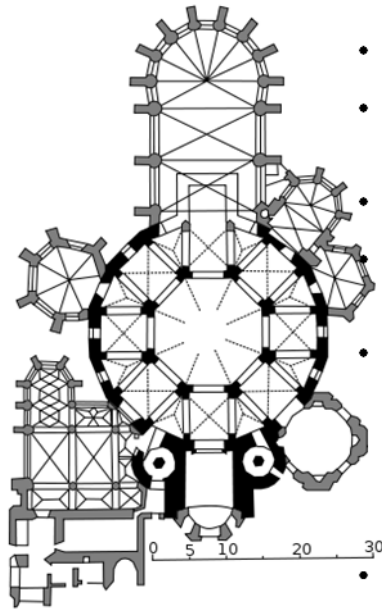
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- **Pre-Romanesque period** is the period in European art and architecture from the **Carolingian Renaissance** in the late **8th century**, to the beginning of the **11th century Romanesque period**.
- Most **significant regions** of this period were the Carolingian homelands – **Northern France and Rhinelands**
- This period started with **Charlemagne**, intent on **recreating the Roman Empire**.
- He based his **architecture on Roman** models.
- E.g.
  - **Palatine Chapel at Aachen**, which took its derivatives from **S. Vitale at Ravenna**
  - **Fulda Abbey**, which was basically supposed to be a copy of **S. Peter's Basilica at Rome**

## PRE-ROMANESQUE PERIOD

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Date: **792**  
Built by: **Charlemagne**  
Type: **Chapel**  
Place: **Aachen, Germany**  
Reason: **Aachen, Germany**  
Planning: **Place of Worship**



- The plan and decoration owe much to the sixth-century Basilica of **San Vitale, Ravenna**.
  - The building is a **centrally planned, domed** chapel.
  - The **east end had a square apse**, and was originally flanked by two basilican structures.
  - The chapel was entered through a **monumental atrium, to the west**.
- The plan and decoration of the building combines elements of **Classical, Byzantine and Pre-Romanesque**.
- There is a **sixteen-sided ambulatory** with a **gallery overhead** encircling the **central octagonal dome**.
- The building has a **simple exterior** and a **complex interior**, with a **double shell octagonal dome** resting on **heavy piers**, a **two-story elevation**, and **elaborate decoration**.
- **Above the main altar, and facing the royal throne, is an image of Christ in Majesty.**

# Palatine Chapel, Aachen

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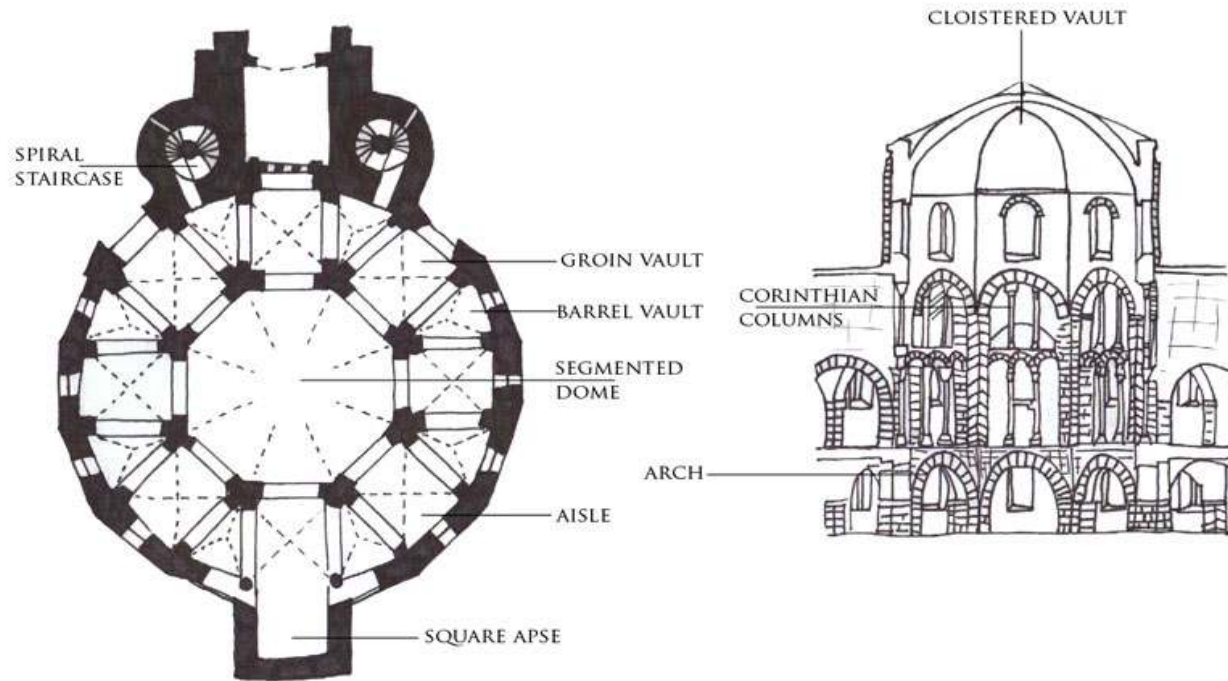


- Construction techniques:
  - The **upper gallery** of the chapel was the **royal space**, with a special throne area for the king, then emperor, which let onto the liturgical space of the church and onto the atrium outside as well.
  - The construction, including **barrel and groin vaults** and an **octagonal cloister-vault in the dome**, reflects **late Roman, or Pre-Romanesque**, practices.
  - its plan **simplifies** the **complex geometry** of the **Ravenna**.
  - **mosaic, marbles**, and other materials **from floors and walls in Rome and Ravenna** were used for this palace chapel.
- Materials:
  - The chapel makes **use of ancient spolia**, conceivably from Ravenna, as well as **newly carved materials**.
  - The **bronze decoration** is of extraordinarily **high quality**, especially the doors with lions heads and the interior railings, with their **Corinthian order columns** and **acanthus scrolls**.
  - The **dome** was decorated originally with **a fresco, and later with mosaic**.

# Palatine Chapel, Aachen

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## PALATINE CHAPEL



FLOOR PLAN

INTERIOR SECTION

## Palatine Chapel, Aachen

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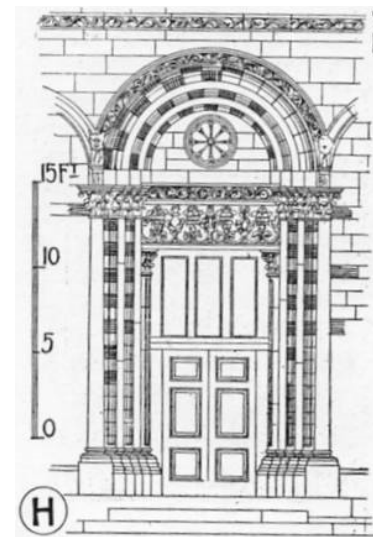
# ROMANESQUE ARCHITECTUTRAL CHARACTERISTIC – ITALY

- **Basilican** type of church was closely adhered
- Preferred to concentrate on **beauty** and **ornamental detail**
- Retained the character of **classical tradition**
- Ornamental **wall passages which rose one above the other** and sometimes even into the gables
- Use of **marble faced walls** – Romanesque Italy



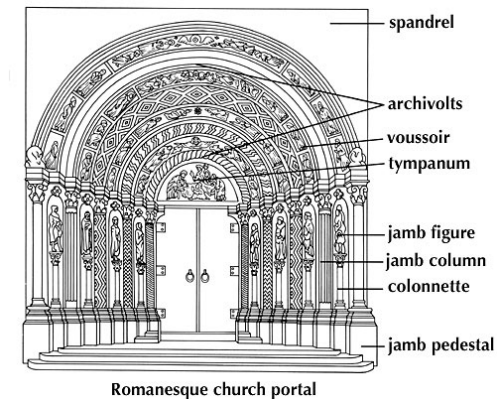
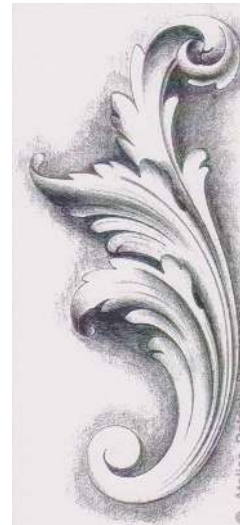
# ROMANESQUE ARCHITECTUTRAL CHARACTERISTIC – ITALY

- Churches – simple open **timber roof** ornamented with **bright coloring**
  - **Timber roof over naves** are of simple open basilican type with **rafters and tie-beams** effectively **decorated in colours**
- **Naves** were **divided from aisles** by **antique column**
- **Choir raised above the crypt-** reached by steps from underneath
- **Arcades** were universal, door and jams were small and unimportant
- **Jambs in rectangular recesses** or “**order**” filled in with **small shafts crowned with semi circular arches**



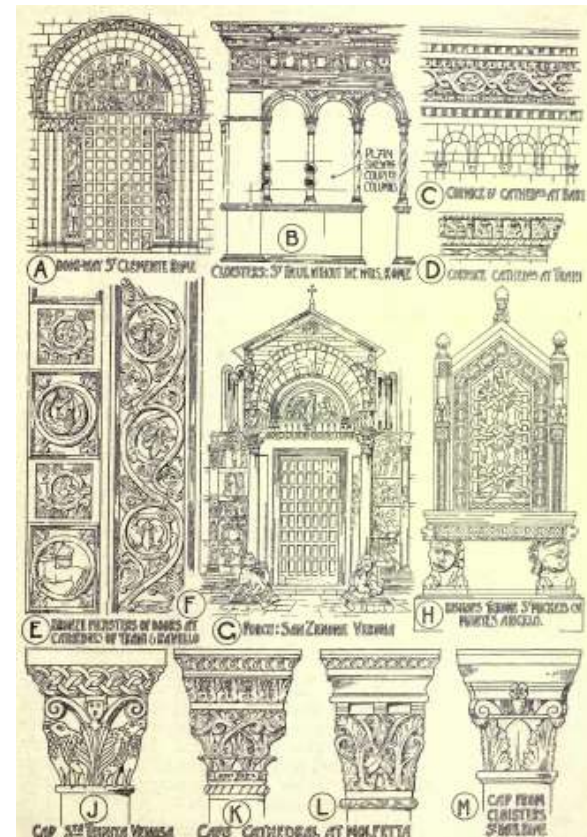
# ROMANESQUE ARCHITECTURE CHARACTERISTIC – ITALY

- **Aisles** have **groins vaults** of small span, divided into compartments by transverse arches
- **Columns** from **ancient roman temples** were used in new churches
  - **Finely carved columns** and **slender twisted columns** in the cloisters are delicate variant of classical type
- Elaborate **variation of old classical moulding** in recessed were used in **doorways and windows**
- **Classical ornamentation** was followed

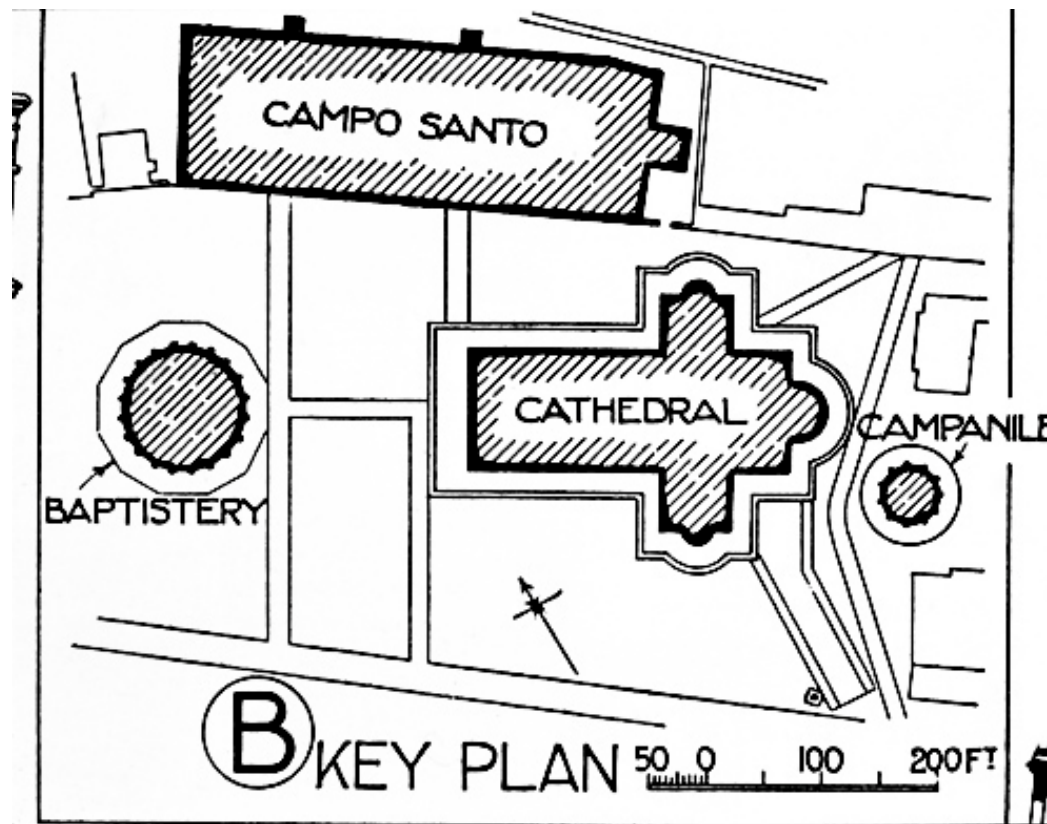


# ROMANESQUE ARCHITECTUTRAL CHARACTERISTIC – ITALY

- Rough variation of **roman acanthus scrolls** are frequent
- **Christian symbolism** now entered into **decorative carving and mosaics**
- The monogram of Christ the emblems of evangelists and saints and the whole system of **symbolism represented by trees birds fishes and animals** are all worked into **decorative scheme**
- **Mosaic paving and high altar** were characteristic of the region and the period
- **Campanili or belt tower** gave a **special character** to religious architecture



# PISA GROUP , ITALY



PISA CATHEDRAL

PISA CAMPANILE

PISA BAPTISTERY

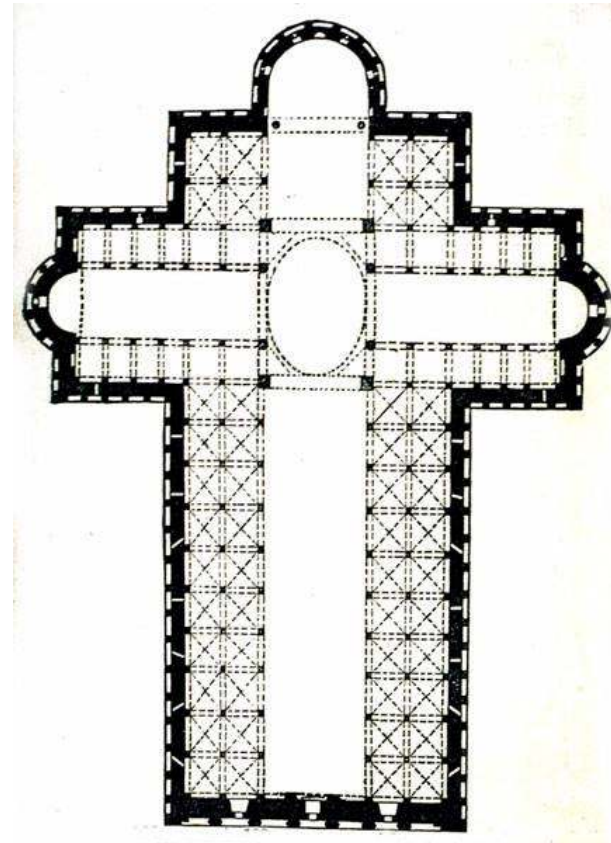
CAMPO SANTO



# PISA GROUP , ITALY

## **PISA CATHEDRAL ( 1063 – 1118) (1261 – 72)**

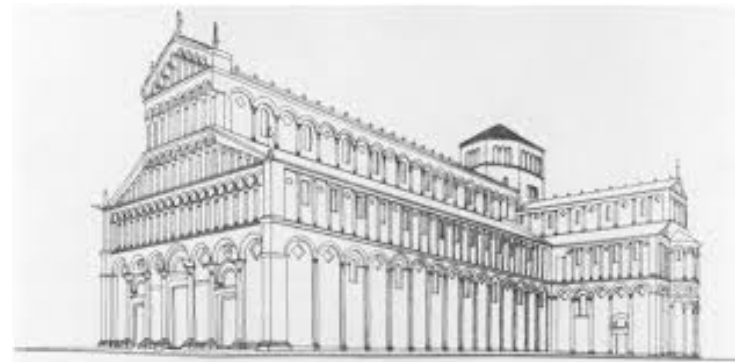
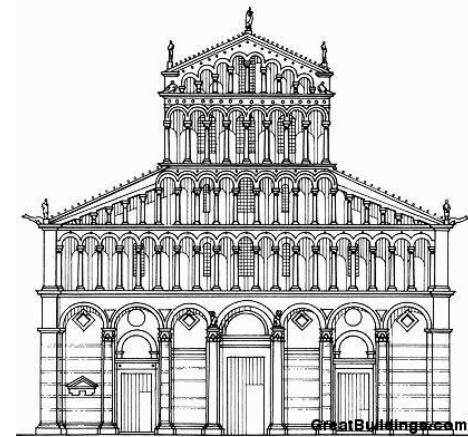
- **Finest example** of Romanesque period
- Has a string **mark in individuality**
- **Basillican church plan**
- Long **rows of columns**
- Connected by **arches and doubles aisles and a nave**
- Usual **timber roof**
- **Exterior has bands of red and white marble**



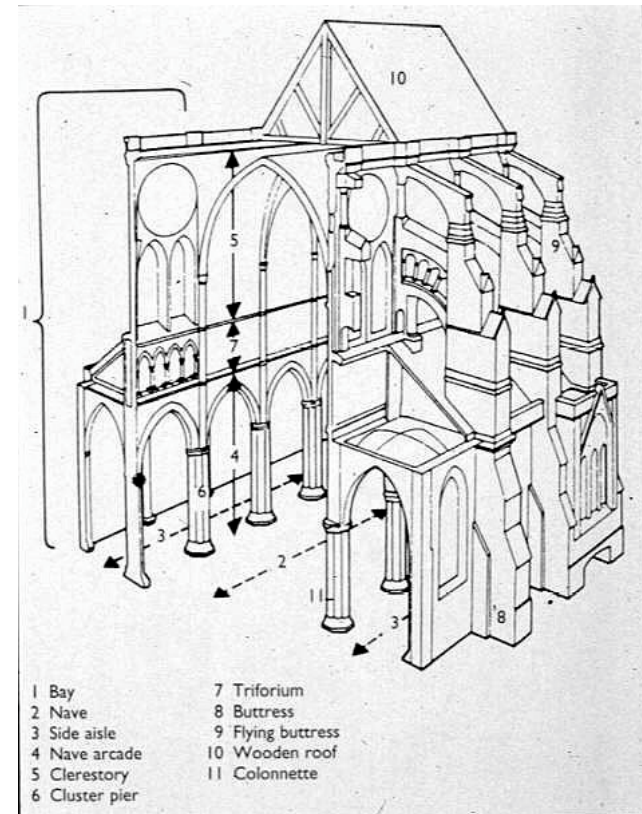
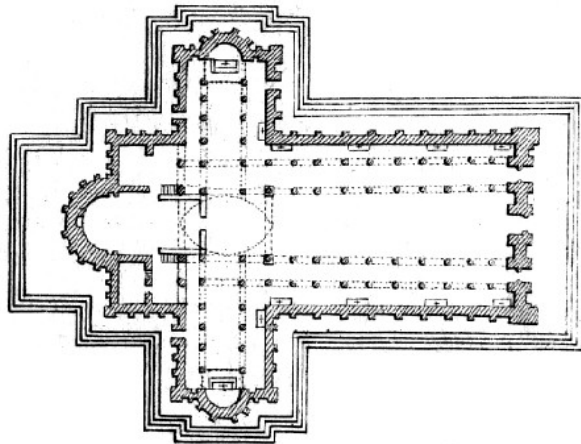
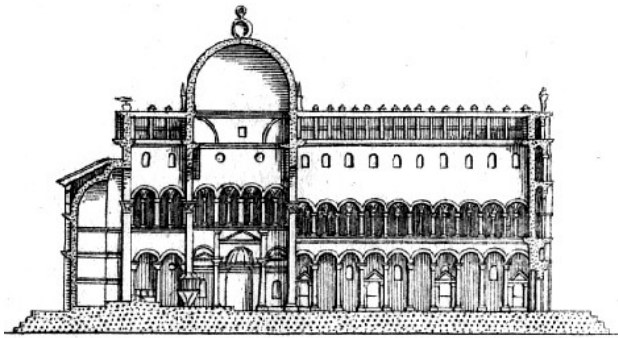
# PISA GROUP , ITALY

## PISA CATHEDRAL ( 1063 – 1118) (1261 – 72)

- Ground story faced with **wall arcading**
- Entrance facade is thrown into relief by tiers of **wall passage which rise one above the other right into the gable**
- **Three transepts each with an apse at the end** (advance on the simple basilican plan)
- **Elliptical dome over the crossing** ( later date)
- Interesting feature – general **proportion and delicacy of ornamental features**



# PISA GROUP , ITALY

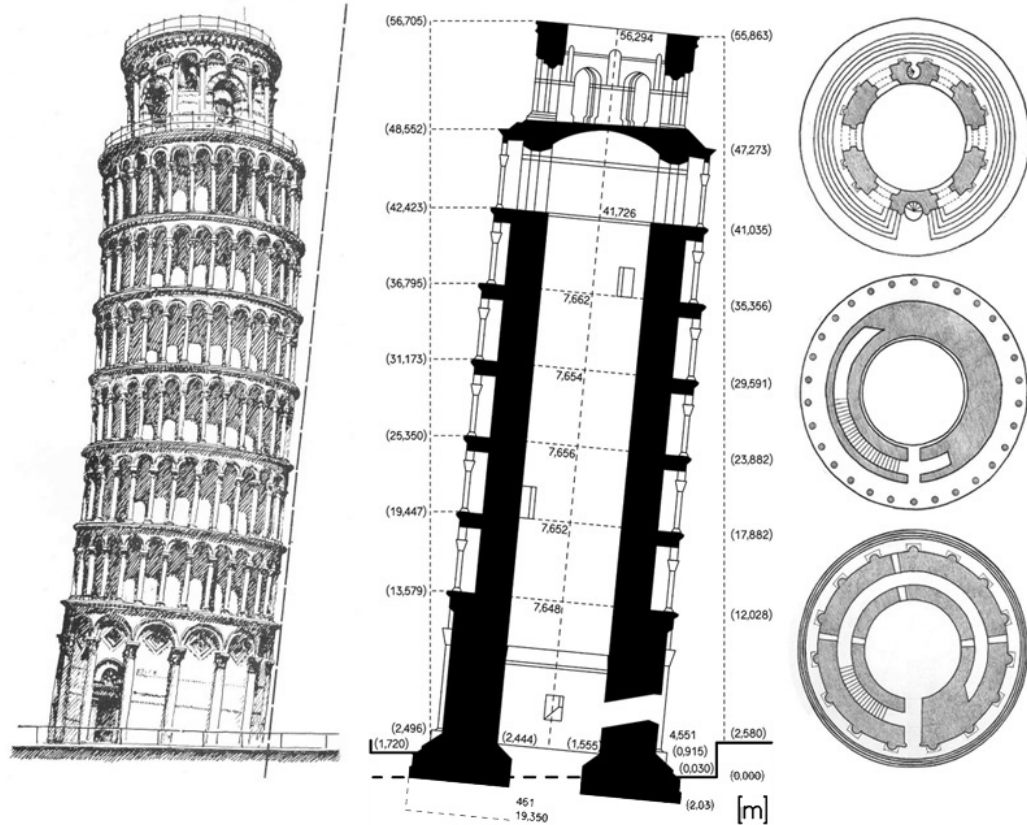




# PISA GROUP , ITALY

## CAMPANILE PISA (1174 – 1271 )

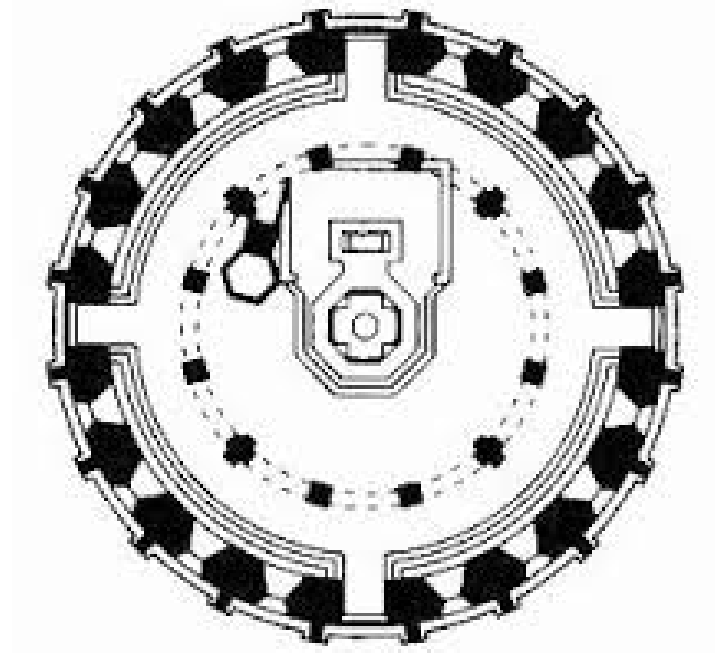
- **Circular tower, 16m (52 ft) in diameter**
- **Rising in 8 stories of encircling arcades**
- **Leaning tower** – most interesting feature- due to **subsidence in the foundation**
- The **upper part of the tower** now **over hangs its base** more than **4.2m (13 ft 9 in)**
- Has an **unstable appearance**
- **Bell stage** wasn't added until **1350**



# PISA GROUP , ITALY

## **BAPTISTERY PISA ( 1153 – 1265)**

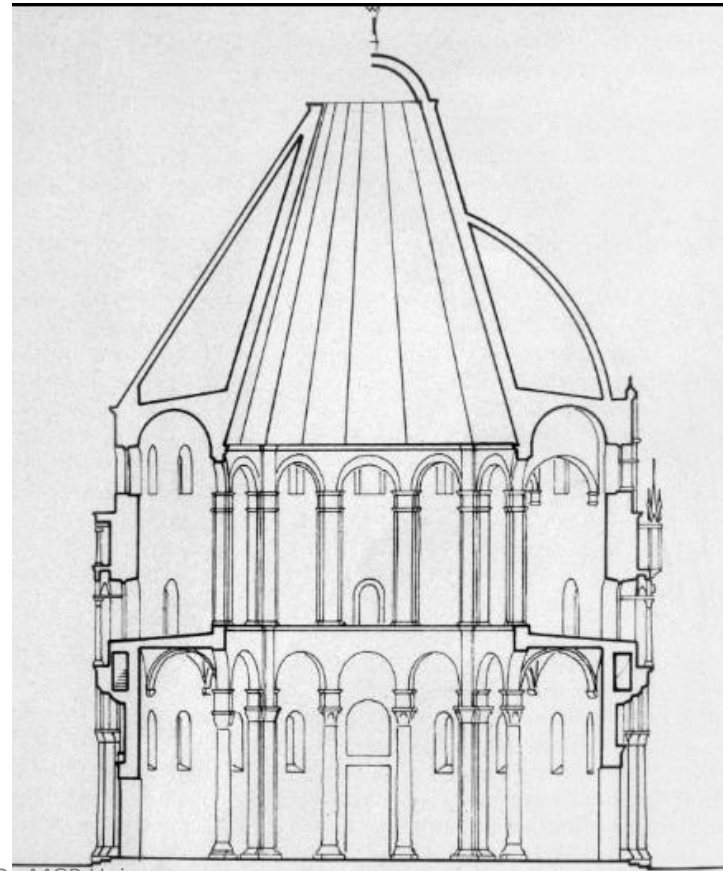
- Designed by **Diotti Salvi**
- **Circular plan** with a central space or **nave** of **18.3m** (60 ft) in **diameter**
- **Separated** by **4 piers and 8 columns** from the aisle
- **Aisle of two story height** which makes the building nearly **39.3m** (129 ft) in **diameter**
- Externally it is surrounded on the **lower story** by **half column connected by semi circular arches** under one of which is the door and **above an open arcade of small detached shafts**



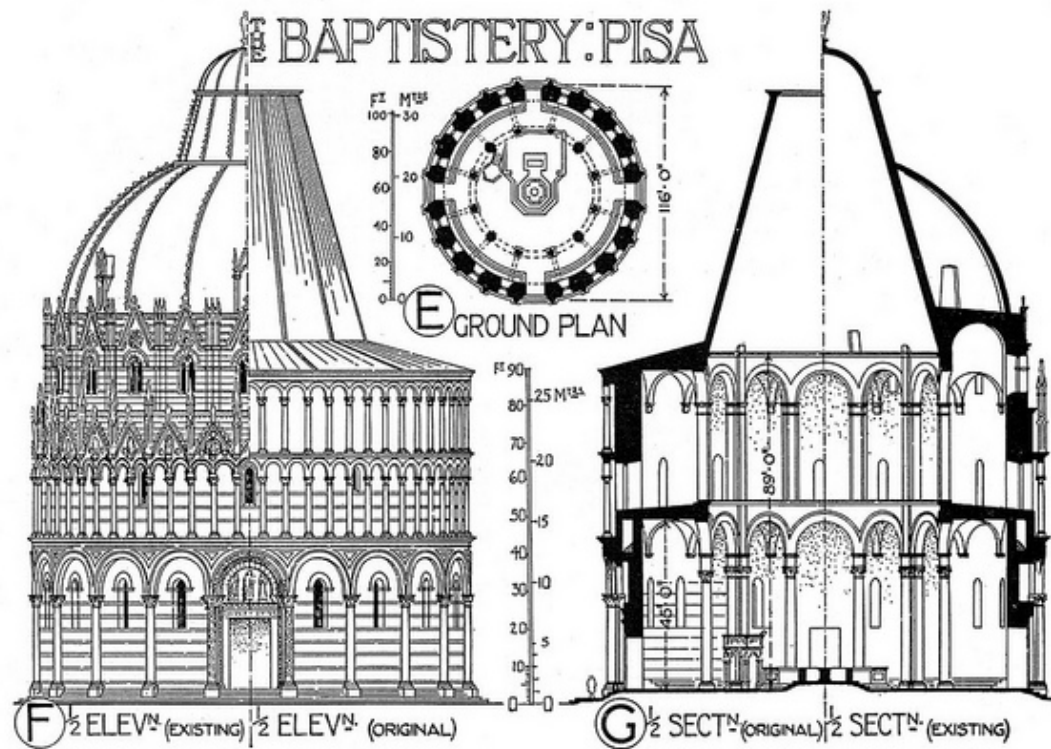
# PISA GROUP , ITALY

## BAPTISTERY PISA ( 1153 – 1265)

- Arcade is surmounted by gothic traditions of 14<sup>th</sup> century which disguise the original design
- The structure is **crown by an outer hemispherical roof** through which **penetrates a truncated cone** capped by a **small dome covering the central space**



# PISA GROUP , ITALY



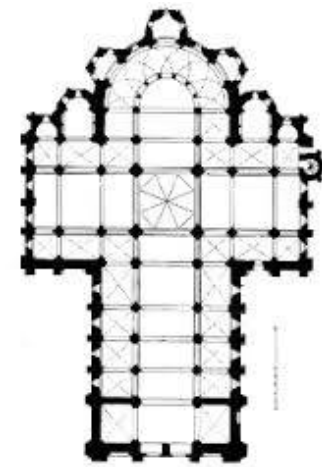
# PISA GROUP , ITALY



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# ROMANESQUE ARCHITECTUTRAL CHARACTERISTIC – FRANCE

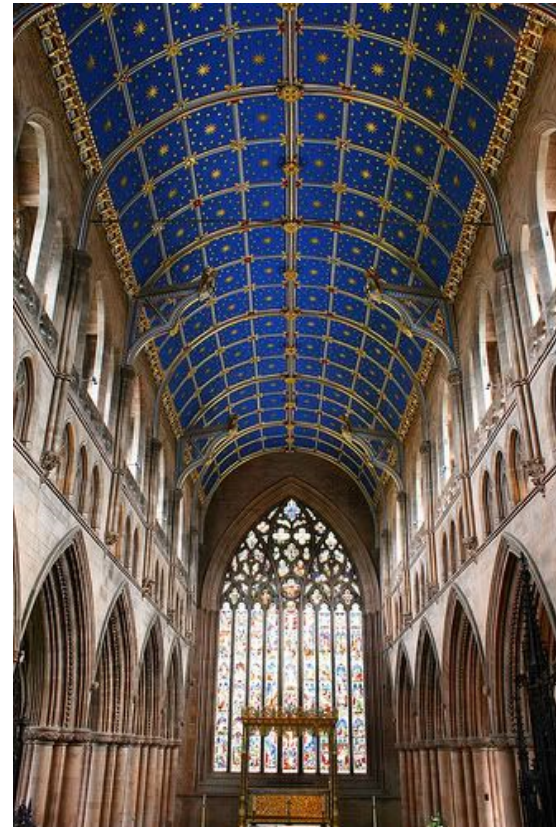
- Churches were **cruciform in plan**
- Naves were covered with **barred vaults – in south**
- Naves with wooden ceilings and **rib vaults – in the north**
- Development of **semi-circular east end as an ambulatory with radiating chapels**
- **Richly decorated church facades and graceful cloisters**
- Use of **old roman architectural features** acquired a fresh **significance**





# ROMANESQUE ARCHITECTUTRAL CHARACTERISTIC – FRANCE

- **Vaulting supported by massive walls** of the recessed chapels – great walls of the roman thermae
- **Development of vaulting** progressed
- **Naves** were often **covered with barrel vaults**
- **Thrust** was **resisted by half barrel vaults** over two storey aisles
- Thus **supporting the clerestory**



# ROMANESQUE ARCHITECTURAL CHARACTERISTIC – FRANCE

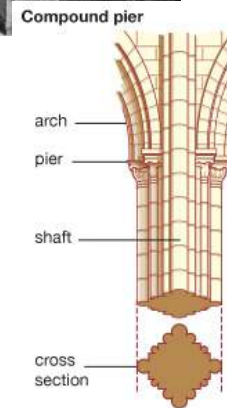
- Aisleless churches often have **blind nave wall arcades**
- **Cloister arcades** are elaborated **with coupled columns** in the depth of the wall
- **Carved capitals** support the **semi-circular arches** of the **narrow bays**
- The **western portals** assemble the **horizontal entablature** of the **roman columns**
- **Doorways** have **recessed jambs** as is usual in this period





# ROMANESQUE ARCHITECTUTRAL CHARACTERISTIC – FRANCE

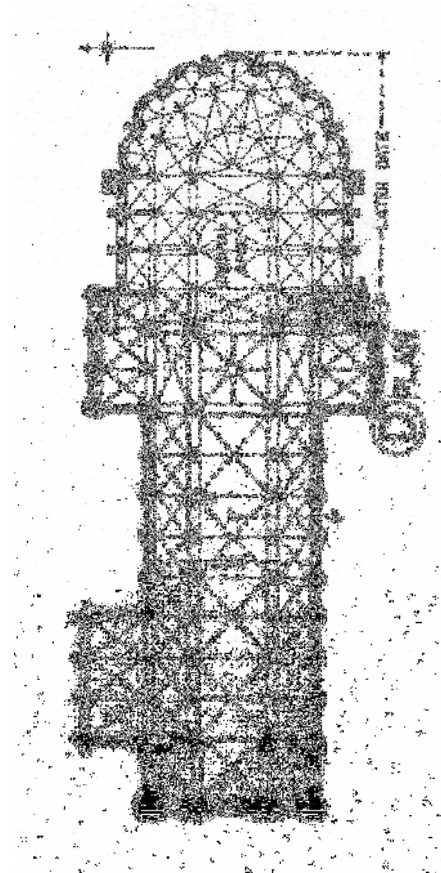
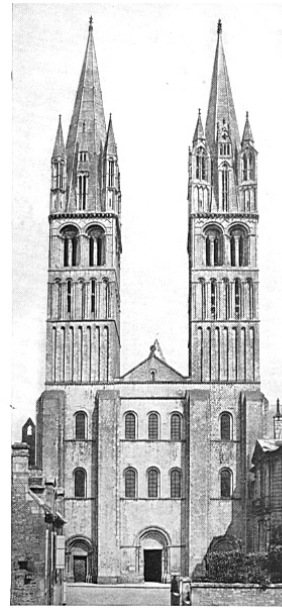
- **Narrow windows with semi-circular heads** and wide splays internally suffice to admit light
- **Western facades** of churches are **distinguished by the introduction of the two flanking towers**
- **Plain massive side walls with flat buttresses** emphasize the richness of the facades
- **Piers** comprising **four attached half columns around the square core**



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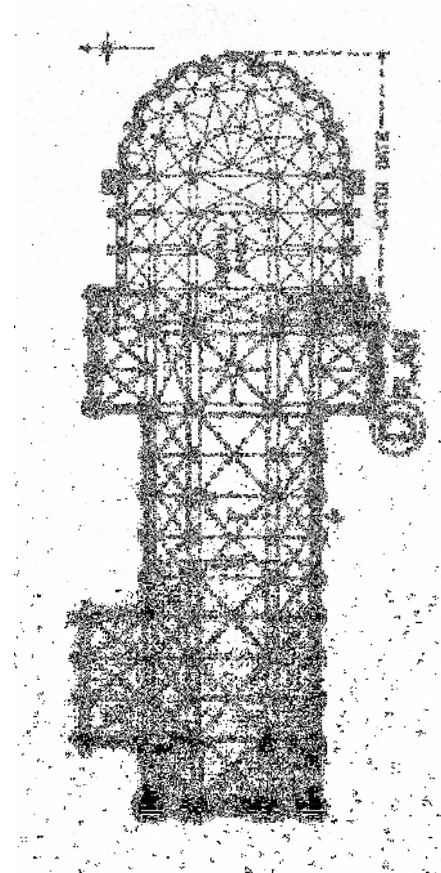
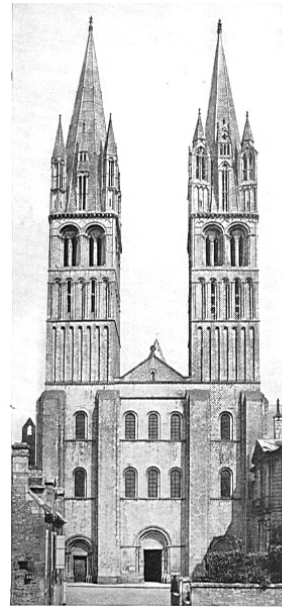
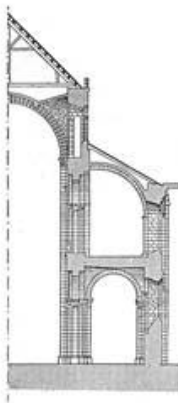
# ABBAYE-AUX-HOMMES, CAEN

- Also known as **S.Etienne**
- **1060-1081**
- **Fine church** in **Normandy**
- Product of **prosperity and power** of the Norman dukes
- Began by **William The Conqueror**
- **Western facade – flanked by two square towers**
- **Prototype** of the later **gothic façades**
- These **two towers** were **crowned by octagonal spires with angle pinnacles** added in the 13<sup>th</sup> century



# ABBAYE-AUX-HOMMES, CAEN

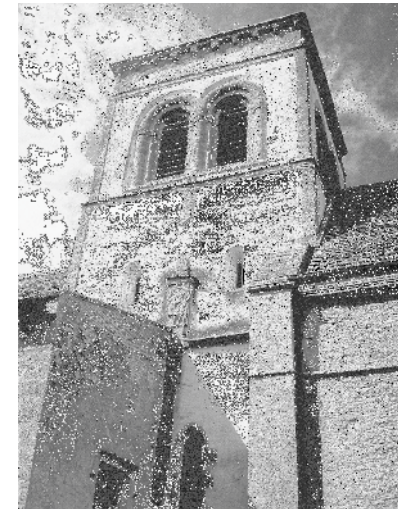
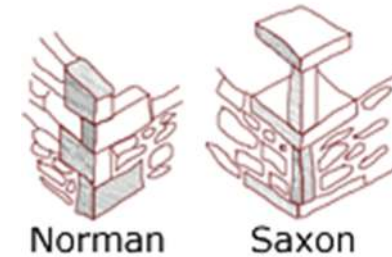
- Nave had **wooden ceiling** originally, later changed to vaults
- **Wall passage** in front of the clerestory window
- Fully developed **triforium gallery** with **half barrel vaults** and **angle rolls** were used for the first time **on the main arches**.



# ROMANESQUE ARCHITECTUTRAL CHARACTERISTIC – ENGLAND

## ANGLO SAXAN ARCHITECTURE

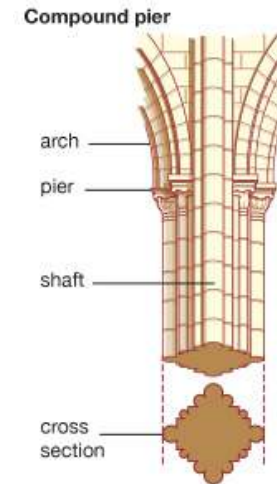
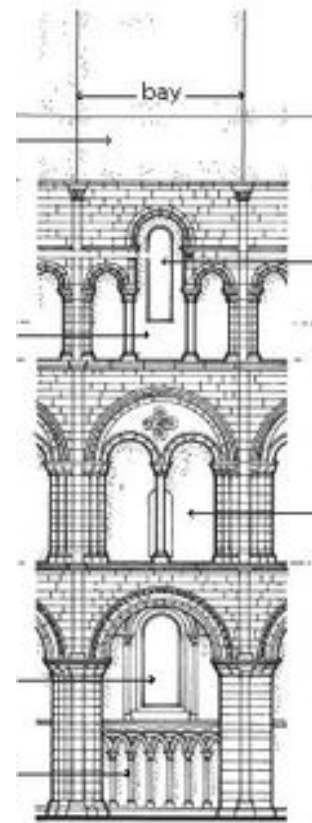
- 10<sup>th</sup>-11<sup>th</sup> century
- Use of western and central towers
- Distinctive decorative and constructional techniques such as
  - long and short quoining,
  - strip work-narrow pilasters sometimes forming decorative pattern ,
  - twin openings, sometimes with triangular heads supported with mid wall shafts
  - bold mouldings of simple rectangular sections or of a bulbous and more complex form
- **Double splayed windows** and **megalithic construction**



# ROMANESQUE ARCHITECTUTRAL CHARACTERISTIC – ENGLAND

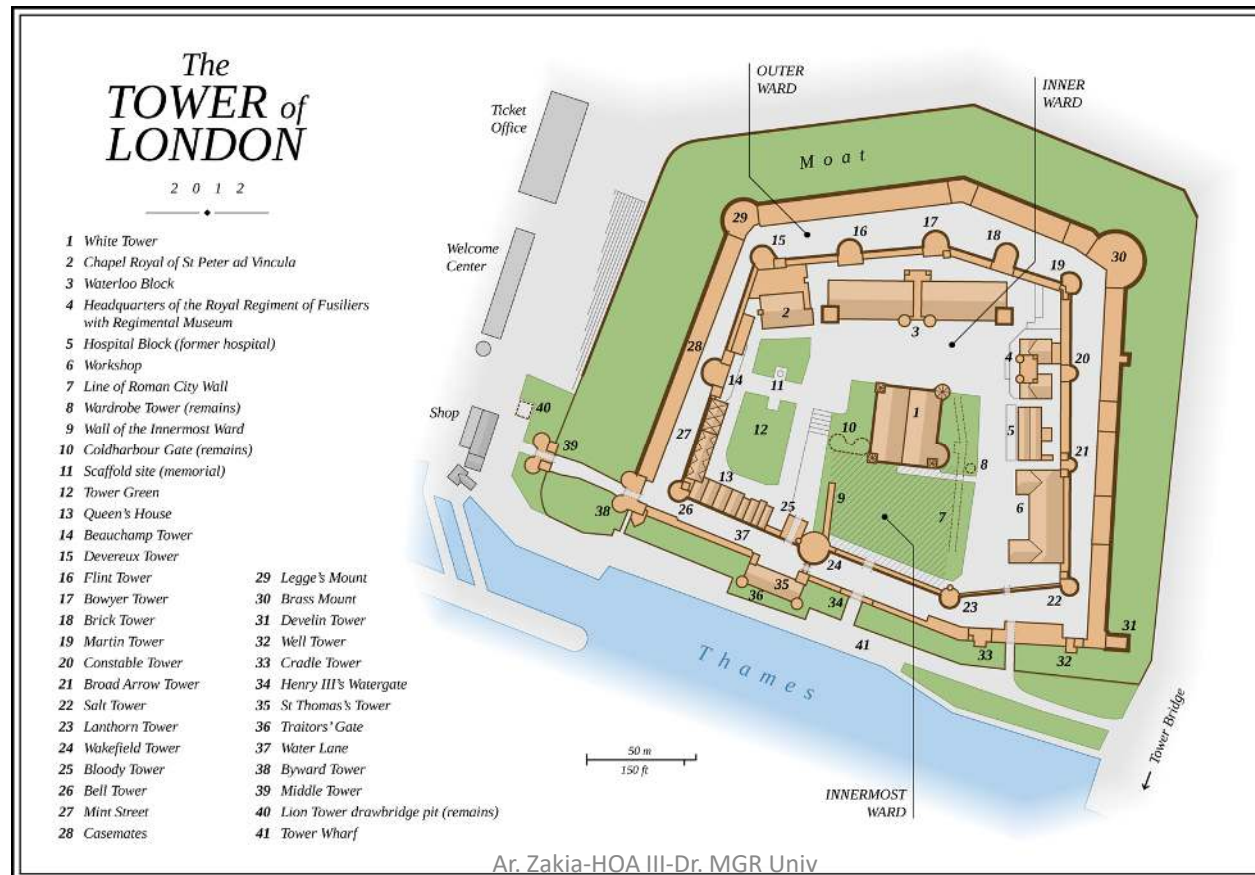
## NORMAN PERIOD

- Destined to **symbolize the new order**
- **Sheer size** was an important factor
- **Major innovation** was the development of
  - the **compound piers**, with the number of half columns and nook shafts multiplying and rising up to **articulate** the whole **elevation**
  - the **tripartite clerestory bays** with the internal face in front of the wall passage transformed onto **three arched composition** supported on columns
  - introduction of **cushioned capitals**
  - introduction of **architectural sculptures** and new **ornamental motifs**
  - introduction of **rib vaults**



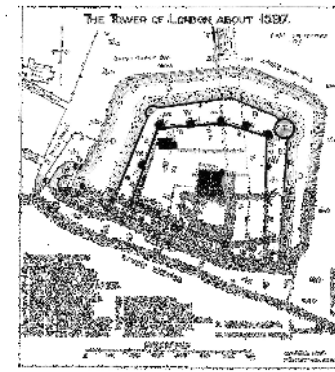
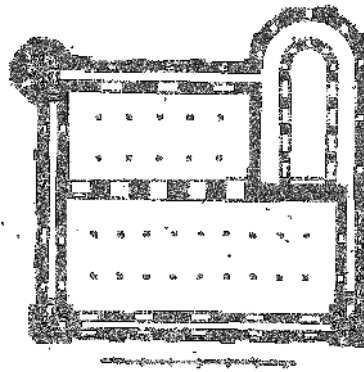


# TOWER OF LONDON



# TOWER OF LONDON

- Greatest castle of the period
- 1086-97
- Assumed its form as **concentric castles – successive lines of fortification**
- Rectangular keep of three storeys – topmost was divided into two later – 28m (92ft) ht
  - stands in **the centre of inner bailey**,
  - **surrounded by a wall and thirteen towers**,
  - which is in turn **enclosed by an outer bailey**,
  - and **wall with eight towers**,
  - and **an encircling moat**.



# TOWER OF LONDON







# Dr. M.G.R

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