

## Sacred facilities

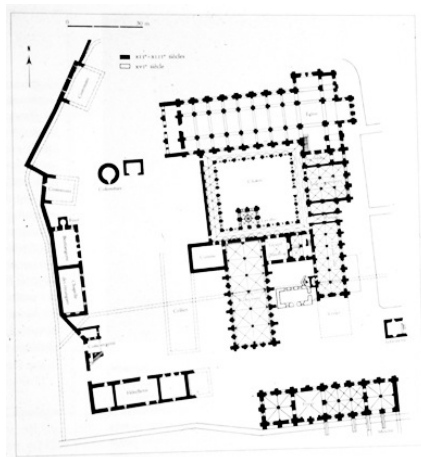
### - TOMBS, MAUSOLEUMS



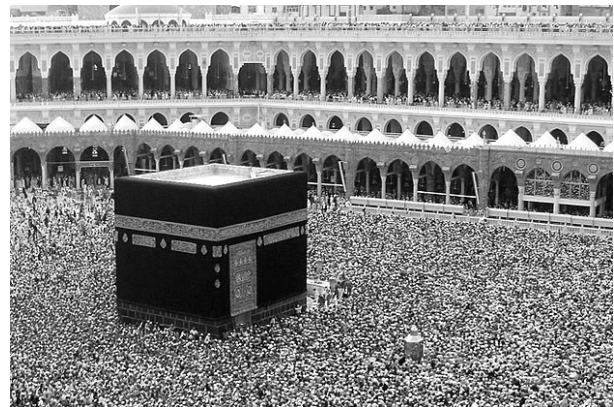
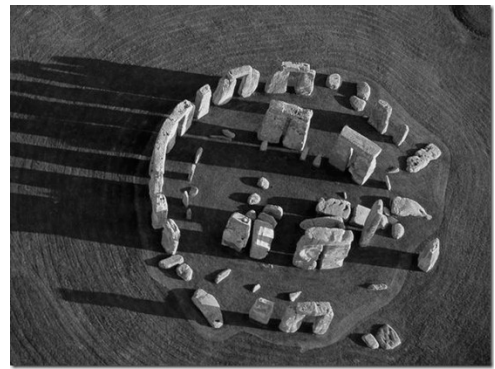
### - TEMPLES, CHURCHES



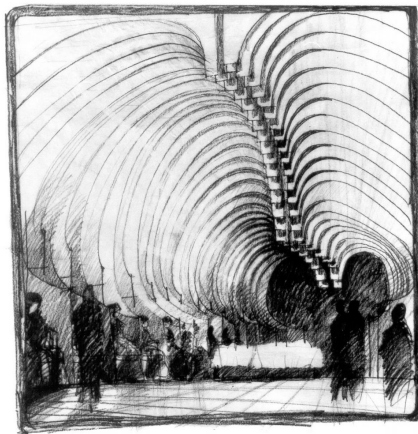
### - MONASTERIES



- CULTIC SPACES



- MORTUARIES, CREMATORIA



- CEMETERIES



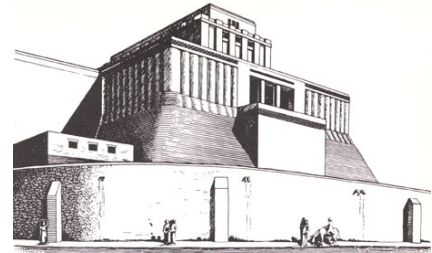
## History

### Prehistorical temples

#### First temple of Eridu (Sumer) 5000-3000 BC) (reconstruction)

Main features:

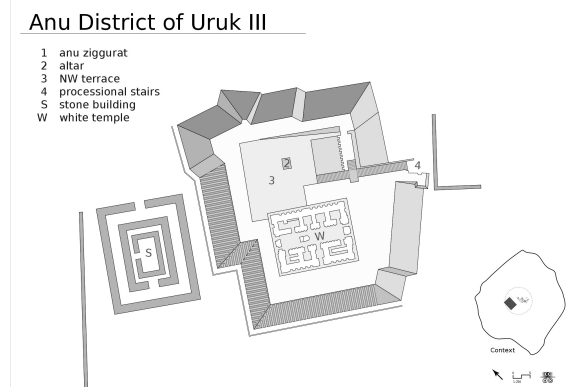
- majestic mass above people (clay plinth, sacrosanct function)
- minimal space only for numbers and the ritual



#### White Temple at Uruk (sumer) 5000-3000 BC

Main features:

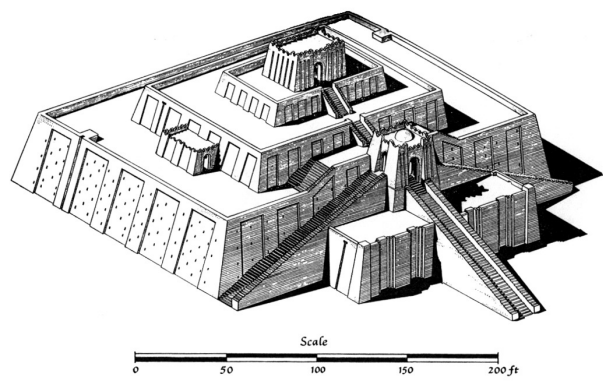
- majestic mass above people (clay plinth, sacrosanct function)
- minimal space only for numbers and the ritual
- assembly stays on the terrace



#### Ziggurat at Ur (Mesopotamia) 2500 BC

Main features:

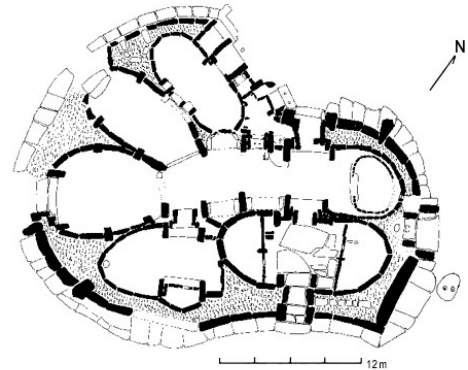
- part of a temple complex
- ziggurat - terraced pyramid
- decorated
- connected to burials
- assembly stays down



## Malta, Hagar Quim 3600 BC

Main features:

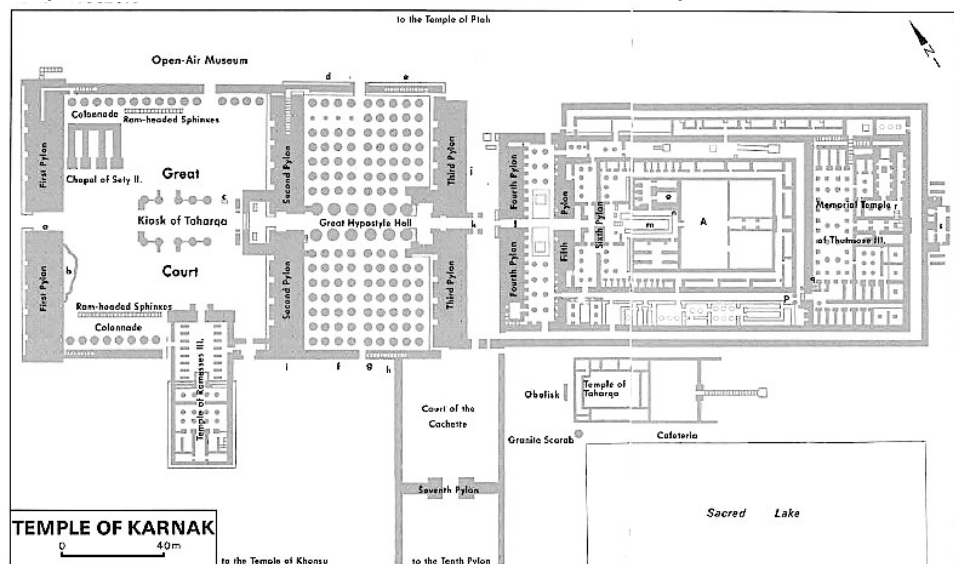
- connected to astronomical experiences
- non-geometrical forms
- developed in phases



## Ancient Egypt

- the path

### Karnak, Amun Ra Temple



- temple complexes

### Del el Bahri, Temple of Hatsepsut





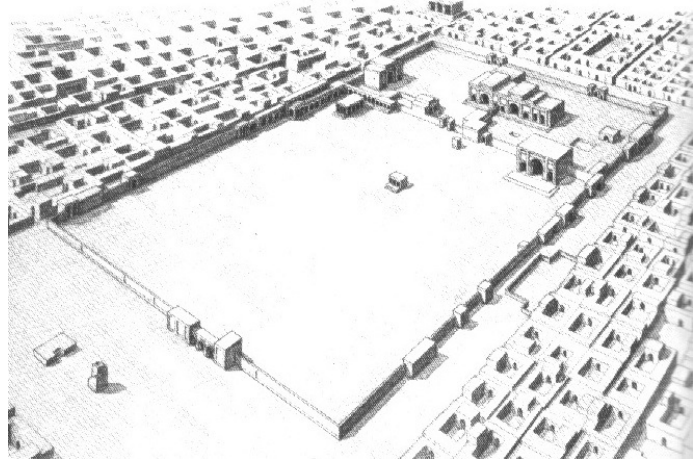
## Persia

before Islam (7th C) Zoroastrianism is the religion of the area  
- temple gardens

Fire temple, Naghsh-é Rostam  
Achaemenian times (559–330 BC.)



Temple garden, Samas temple, Hatra  
Parthian times (2<sup>nd</sup> C)



## South America

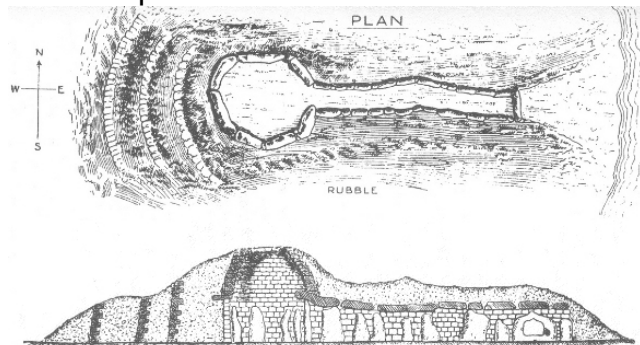
Peru, pre-columbian cultures  
- pyramids and sacred districts

El Paraiso, 2000 BC

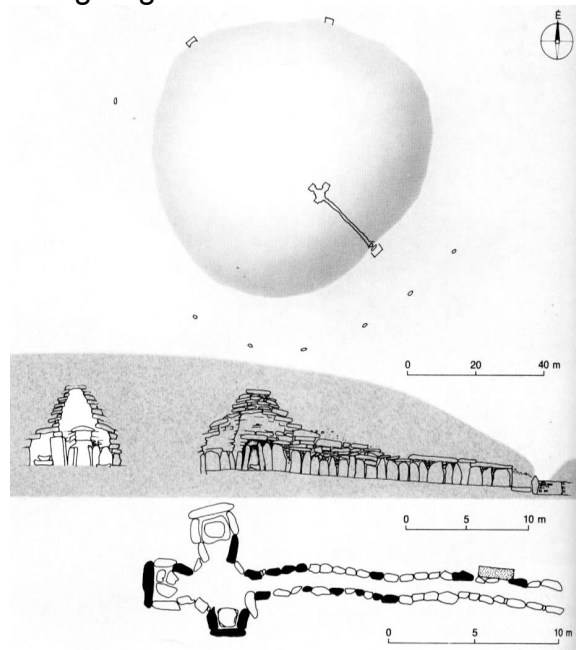


Megalithic tombs (space - like a womb)

Tepe Gavra 4000 BC.



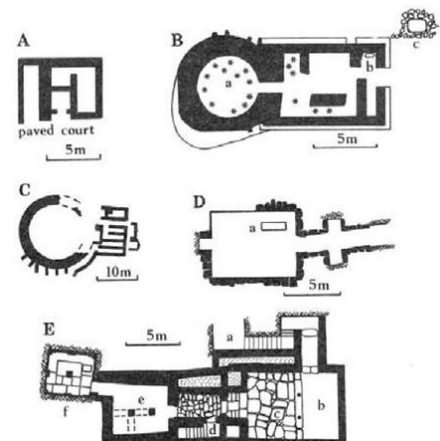
Newgrange 2200 BC.



Anatolia - Turkey 2000-500 BC

Minoan culture on Island Crete, 2000-1400 BC  
Main features:

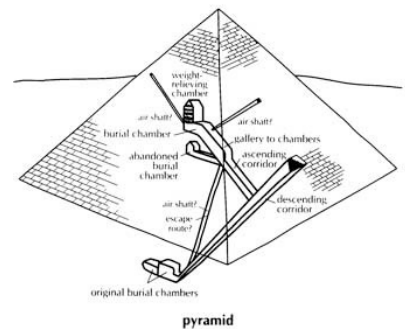
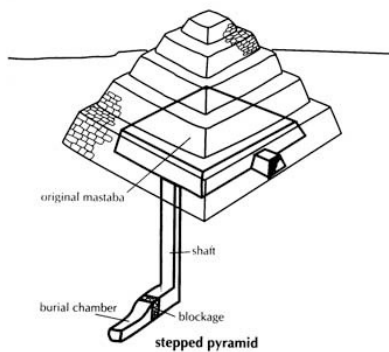
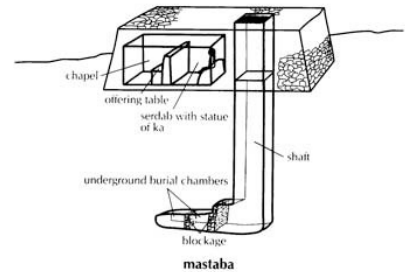
- belief in afterlife
- copy of residential dwellings
- early phase: carved into cliffs
- later built tombs



## Ancient Egypt -tombs

### - Mastaba

**ELEMENTS OF ARCHITECTURE**  
**Mastaba to Pyramid**  
As the gateway to the after-life for Egyptian kings and members of the royal court, the Egyptian burial structure began as a low rectangular mastaba with an internal serdab and chapel, then a mastaba with attached chapel and serdab (not shown). Later, mastaba forms of decreasing size were stacked over an underground burial chamber to form the stepped pyramid. The culmination of the Egyptian burial chamber is the pyramid, in which the actual burial site may be within the pyramid—not below ground—with false chambers, false doors, and confusing passageways to foil potential tomb robbers.



### - Pyramid

- bent pyramid
- stepped pyramid
- great pyramids

## Persia

- tombs cut into face of cliffs

Tombs of Darius, Artaxerxes and Xerxes  
Naqsh-e Rostam, (5<sup>th</sup> C BC)



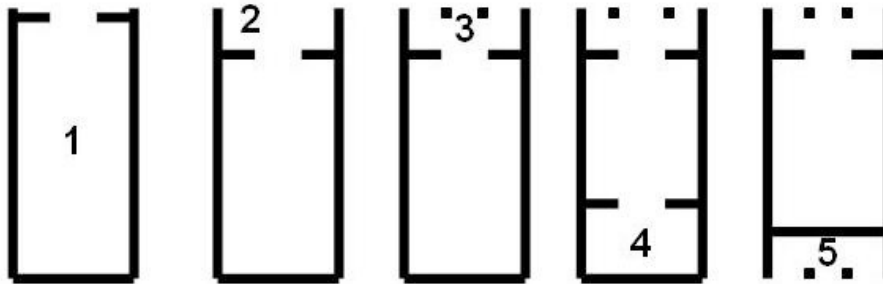
## Ancient Greece

- temple

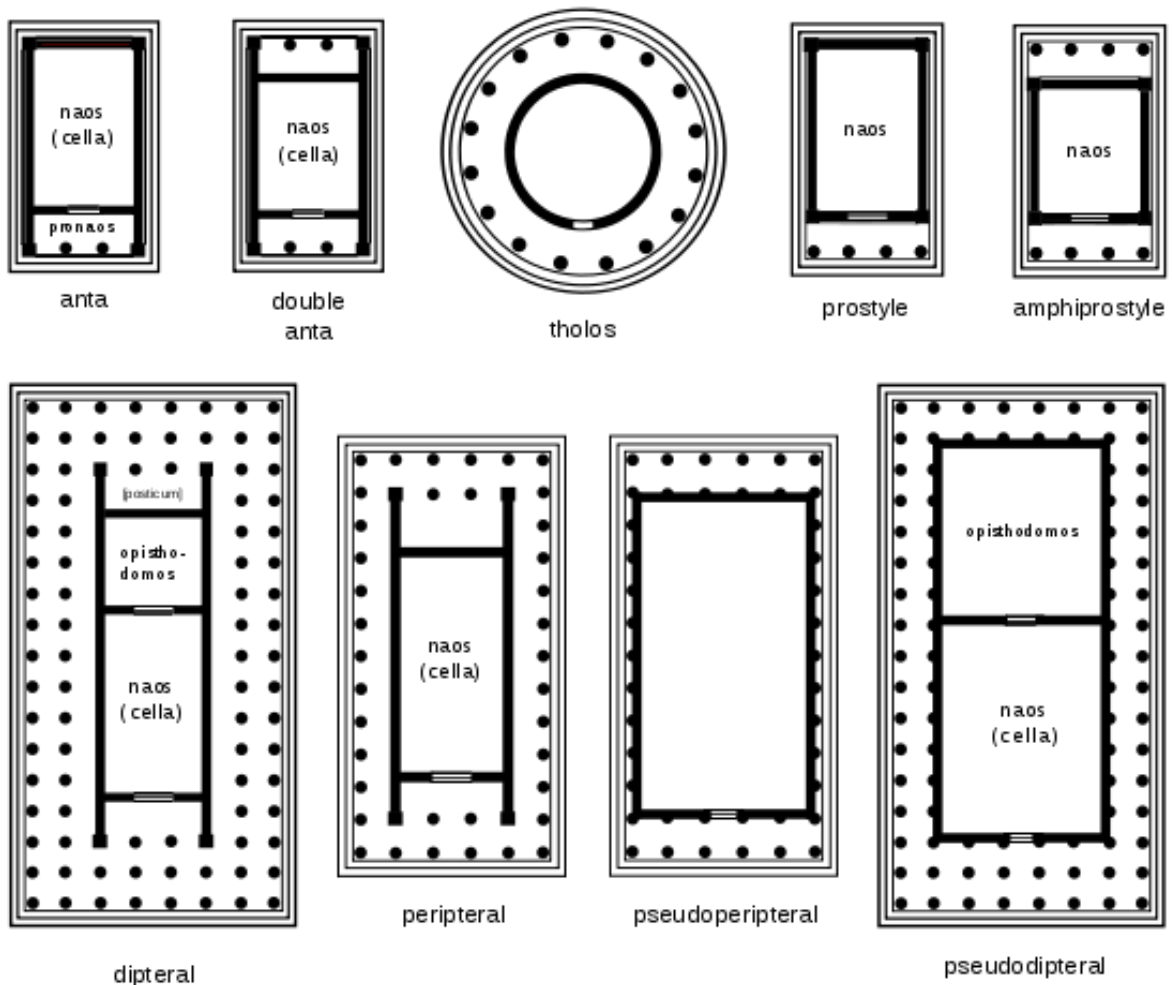
only for relics – shrine,

pseudo spaces

# Megaron



- typology of Greek temples

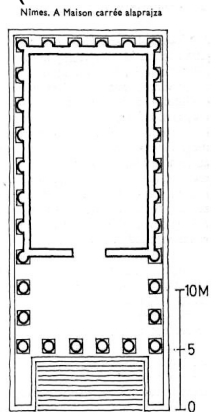




## Roman Empire

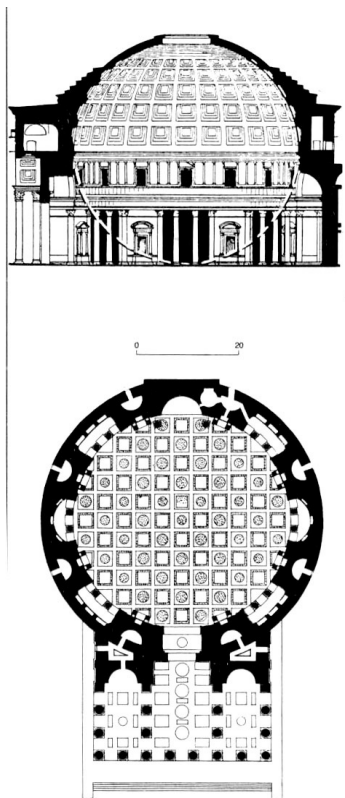
- temples

closed spaces (urban environment)

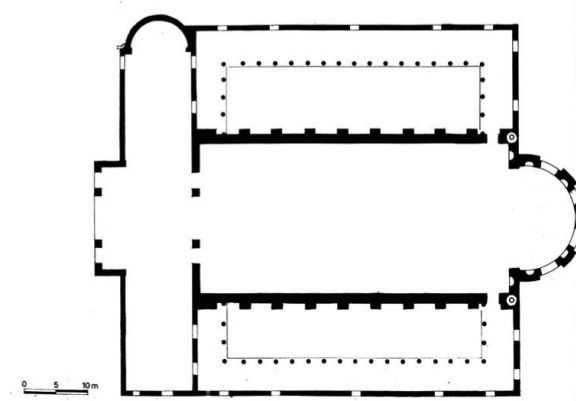


- divine emperors

Pantheon



- palace as prefiguration of churches 313 AD Trier, Germany

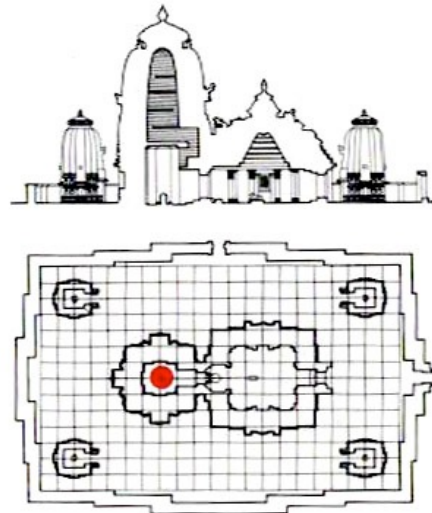


## FIVE CLASSICAL RELIGIONS

### Hinduism

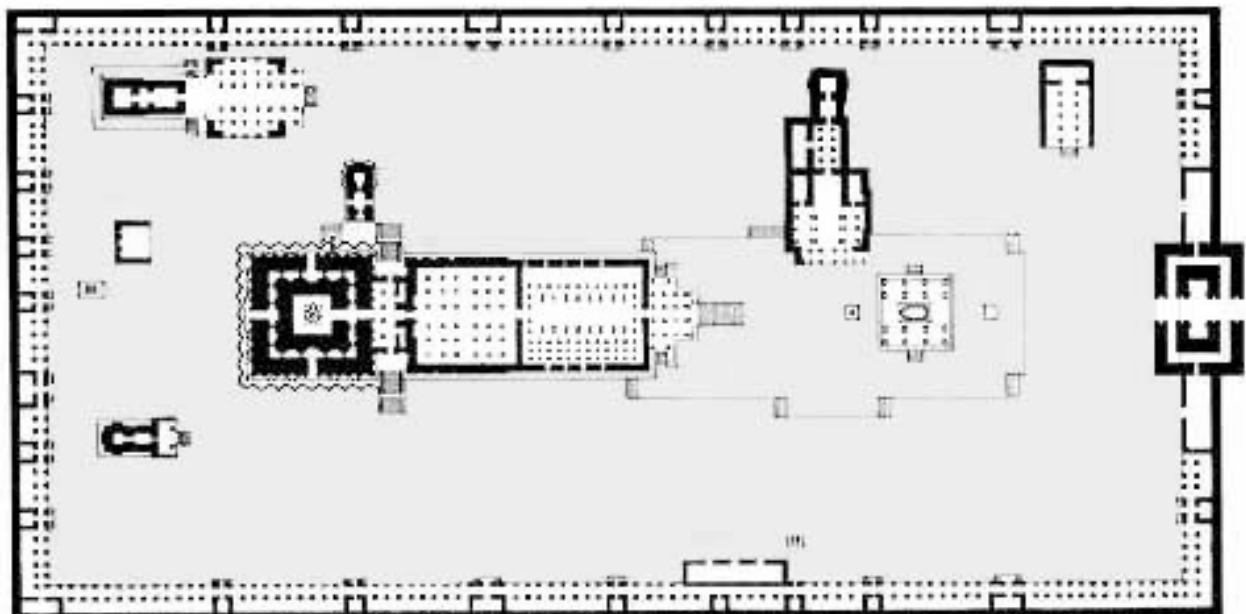
- large courtly temple complexes – likeness of cosmos, deep symbolic character
- in the centre of the temple is the cell of the highest divinity
- cell and assembly space are independent elements

Brahmeshwara temple 11th C, Northern India



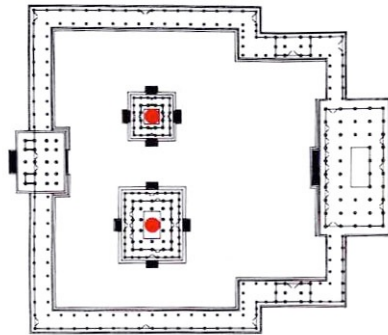
Brahmeshvara-Tempel, Nordindien 11. Jh.  
*Brahmeshvara Temple in northern India, 11th century*  
Maßstab / scale 1:1000

Bradishwara temple garden



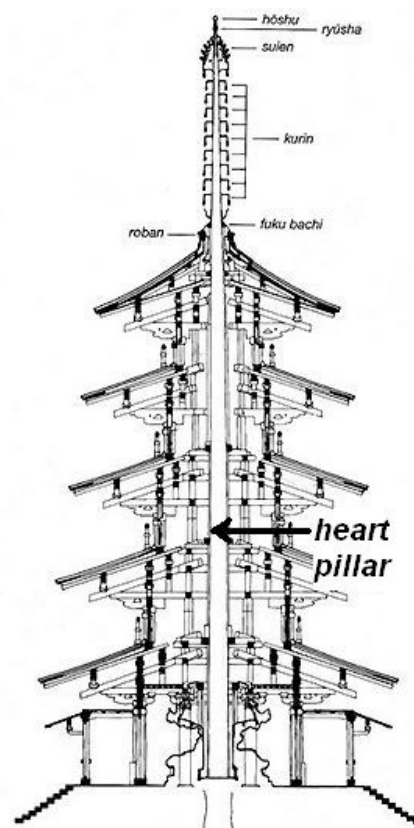
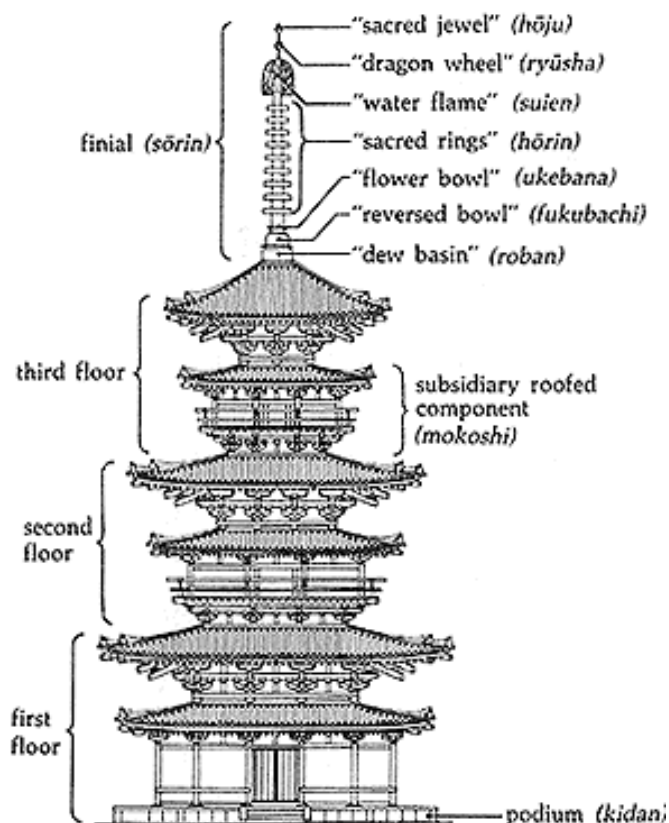
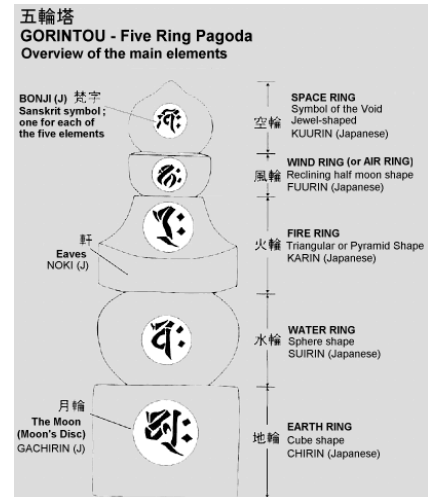
## Buddhism

- stupa is a development of Indian pre-Buddhist tumulus – it houses holy relics
- pagoda – Japanese form of stupa
- no large span



Horyu-ji-Tempel, Nara 7. Jh.  
Horyu-ji Temple in Nara, 7th century  
Maßstab / scale 1:2000

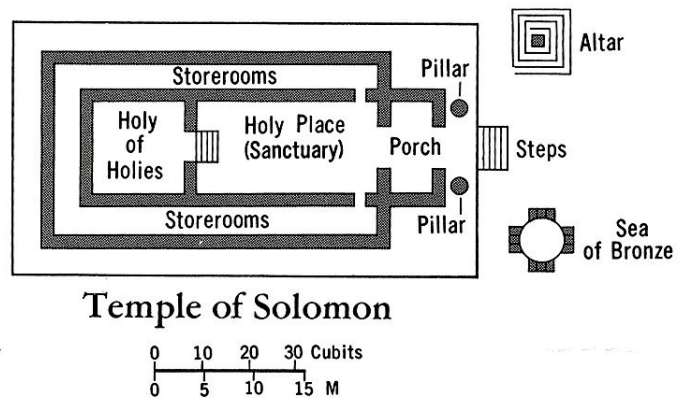
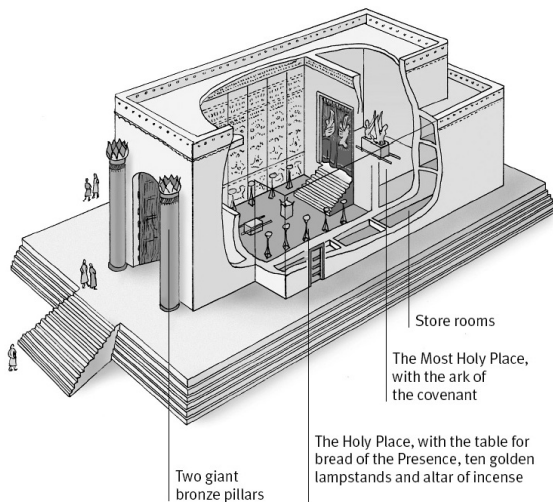
Nara Horyu Ji complex, 7th C



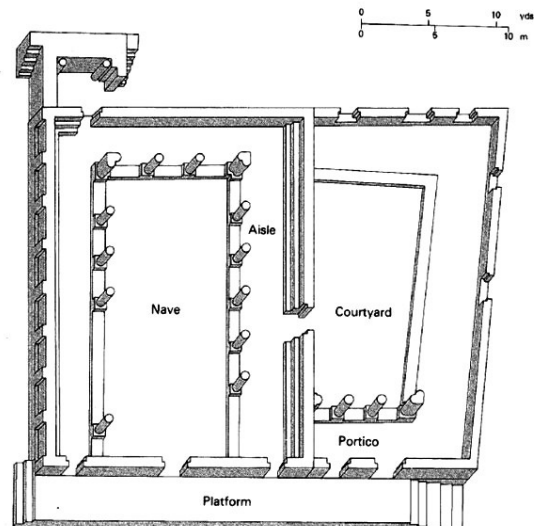
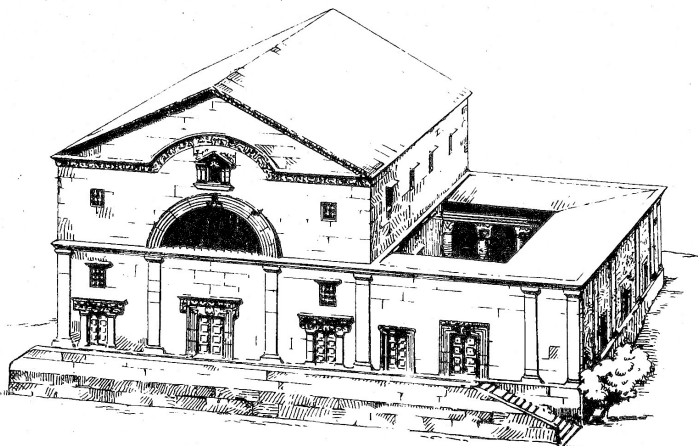
Judaism – oldest monotheistic world religion

- synagogue = assembling

Temple of Solomon, Jerusalem 10th C BC.  
(Western or Wailing Wall today) – stone  
version of the original tent-like sanctuary  
for the Ark of Covenant



Synagogue of Capernaum 4th C BC.

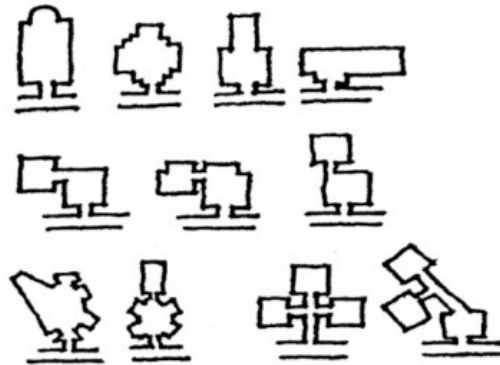


- Torah shrine – oriented towards Jerusalem
- podium for reading the Torah scripts
- women are separated from men
- simple hall



## Christianity

- the first manifestum of liturgy is a table (during the first 300 years underground life people assembled in private houses around a table)
- prefigurations:
  - Palatium Sacrum = palace of divine emperor
  - synagogue as assembly hall

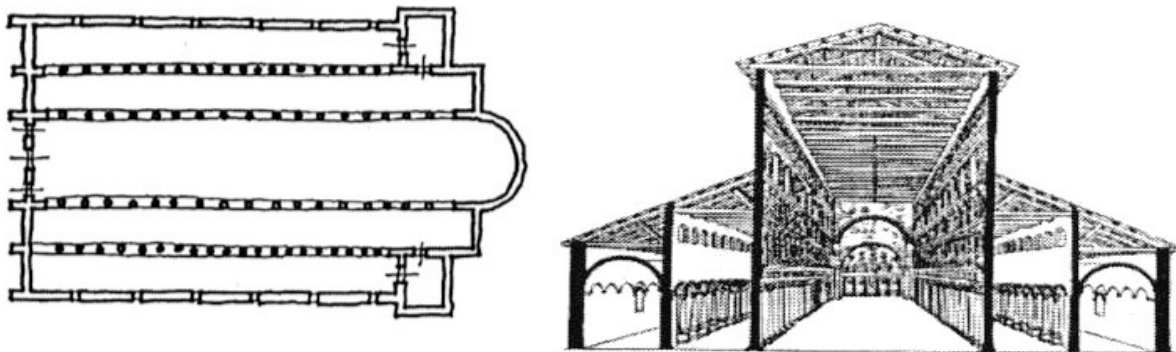


Cubiculum of Catacombs, Rome, Via Appia (1st, 2nd C. AD)

Emperor Constantin supported the spread – state religion.  
Edict of Milan 313 AD

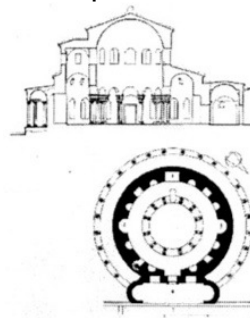
First monumental assembly cathedral 313 AD.

- timber roofed Roman hall structure, mixed function – assembly hall like a synagogue and holy place like a temple
- latin cross-shape lay-out, longitudinal hall



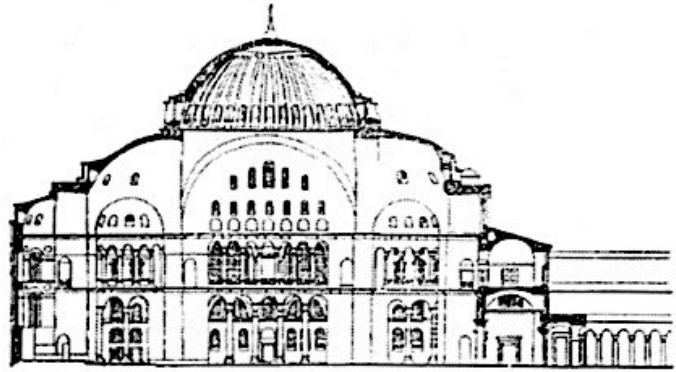
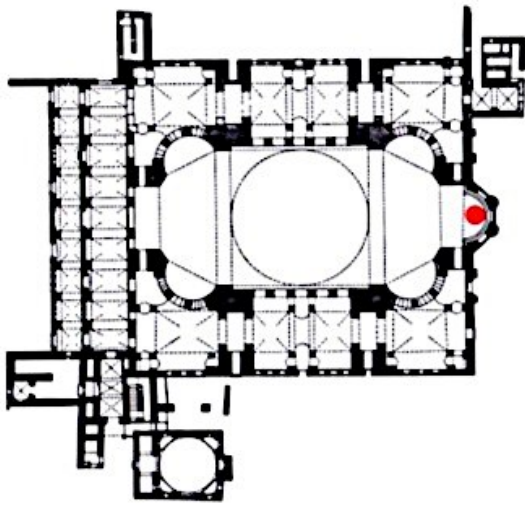
Cathedral S. Salvator (now S Giovanni Laterano) Rome 5th C.

- central space arrangement for special functions – memorial or baptise church



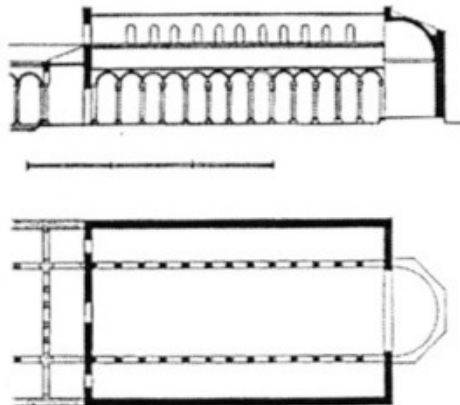
S. Constanza Mausoleum Rome 4th C

East Roman Empire (Constantinople)  
both archetypes as before

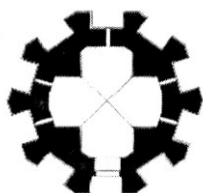
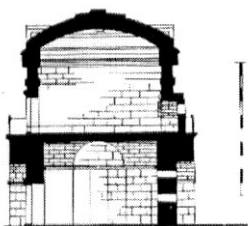


Constantinople (Istanbul), Hagia Sophia (537)

- 30 m diameter cupola – golden heaven
- great influence on Islamic and Western Christian architecture

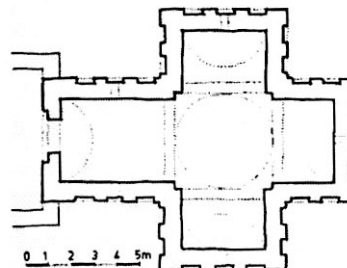
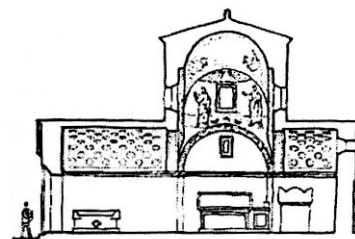


Ravenna, S. Appolinare Nuovo (519)  
Former palace-church



Tomb of Theoderic the Great

520



Tomb of Galla Placidia 450

## 1054 Schisma separation of Church

West – Latin

East – Byzantine

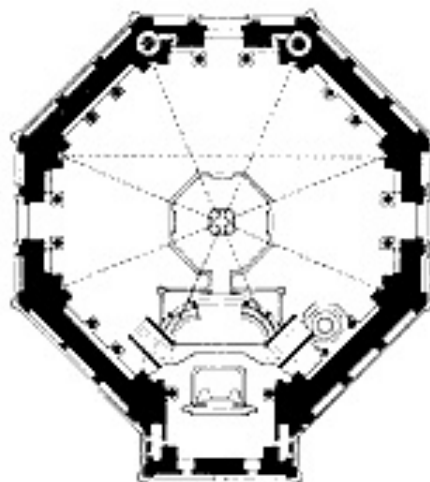
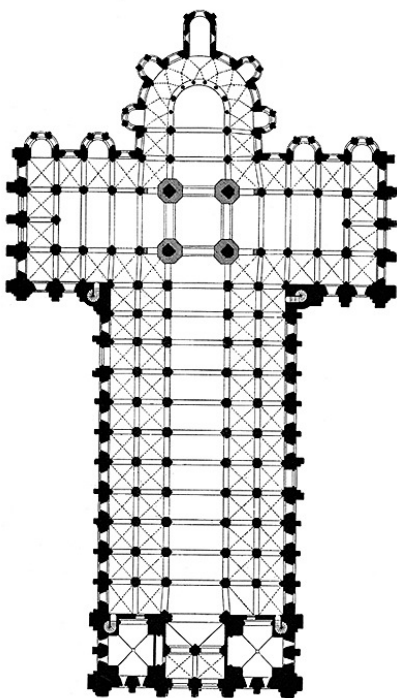
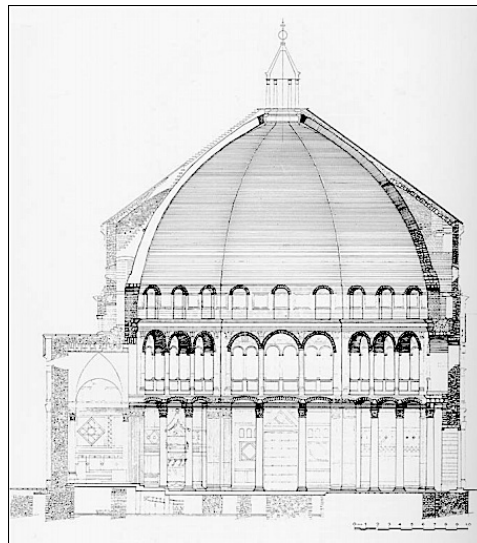
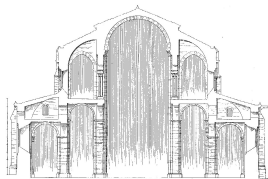
- no development in types and style orthodoxy = right doctrine
- strong local influences
- iconostas hides altar space

## Western styles of sacral architecture

### Romanesque style

#### 11C monumental cathedrals and cloisters – palace of Lord

- pure sincerity – the technological level in harmony with the philosophy
- missionary activity – Benedict order „ora et labora“

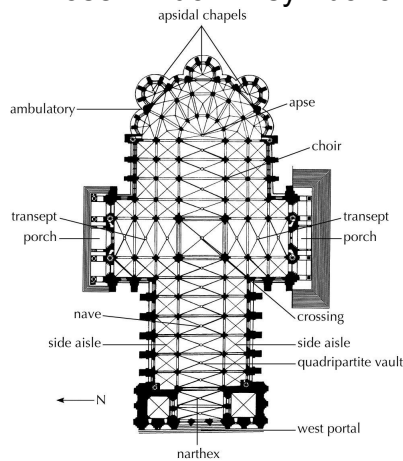


Nave-cathedrals ec.: Toulouse, St Sernin 1080-1120

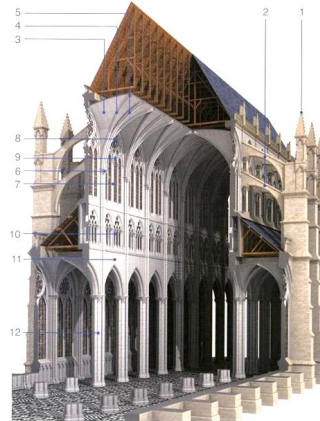
Central: ec: Baptistry Florence 1059-1128

## Gothic

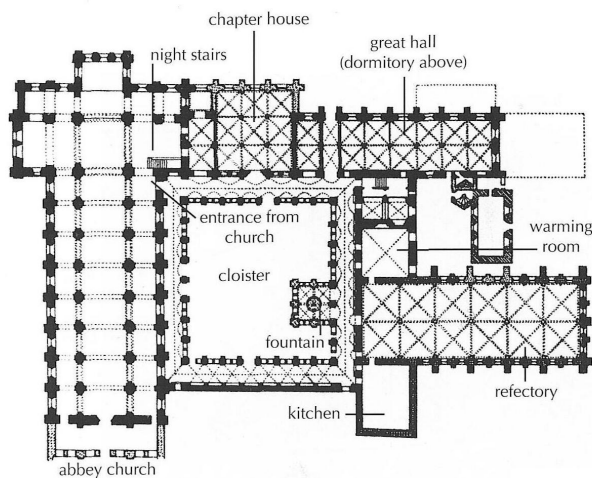
- political mission – to integrate French territories – „imperial sacral gothic“
- space arrangement follows Latin cross with transept, nave and aisles
- skeleton structure,
- groined cove (cross vaults)
- first building Saint Denis monastery church, (burial place of French kings)  
refurbished by abbot Suger 1137-44
- rose window – symbol of heavenly Jerusalem



- 1) Pinnacle
- 2) Flying Buttress
- 3) Vaulting Web
- 4) Diagonal Rib
- 5) Transverse Rib
- 6) Springing
- 7) Clerestory
- 8) Oculus
- 9) Lancet
- 10) Triforium
- 11) Nave Arcade
- 12) Compound Pier with responds



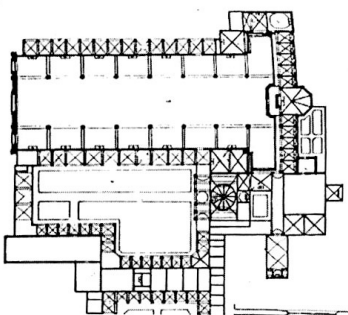
## Cistercian architecture



Cistercian abbey Fontenay, France 13th C

## Late Gothic

- friaries – cloisters of beggar orders
- large assembly halls



Florence, Santa Croce friary

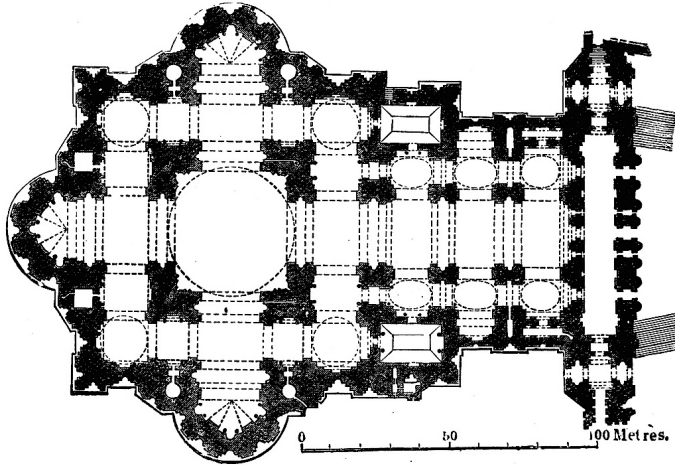


## Protestantism

Calvin, Luther, Zwingli rejected the splendour of Gothic

## Renaissance

- domed central church (but not centre of the liturgy)

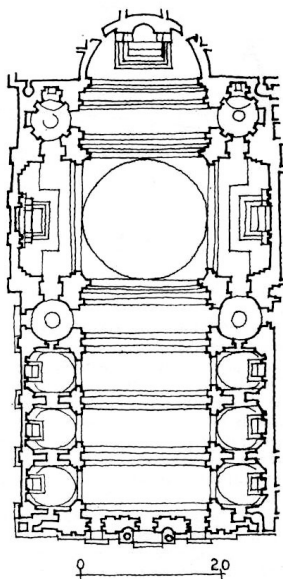


Rome, St Pietro Bramante + Michelangelo

## Baroque

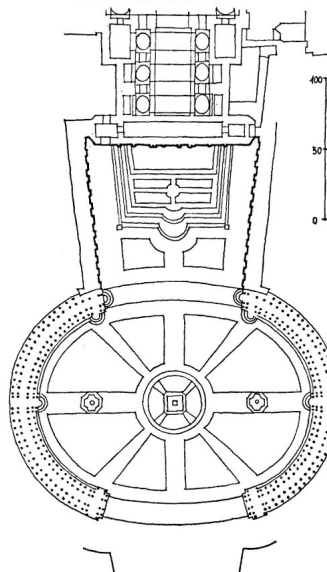
- answer on the Protestantism
- influenced by protestant space forms

Róma. Az II. Gesù alaprajza

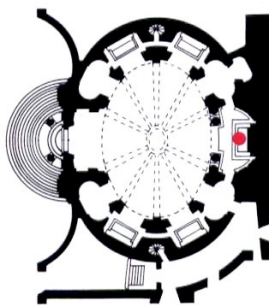


Rome, Il Gesu, Vignola 1575

Róma. Piazza di S. Pietro. Alaprajz



Rome Piazza san Pietro, Bernini

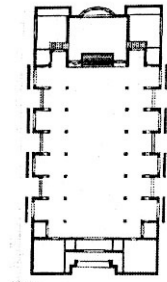


10 Sant' Andrea al Quirinale, Rom 1670  
Sant' Andrea al Quirinale in Rome, 1670  
Maßstab / scale 1:1000

- oval lay-out

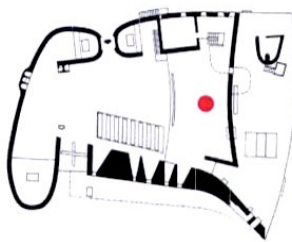
## Modern

- traditional space arrangement



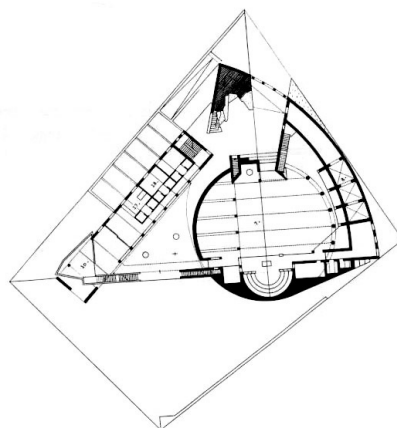
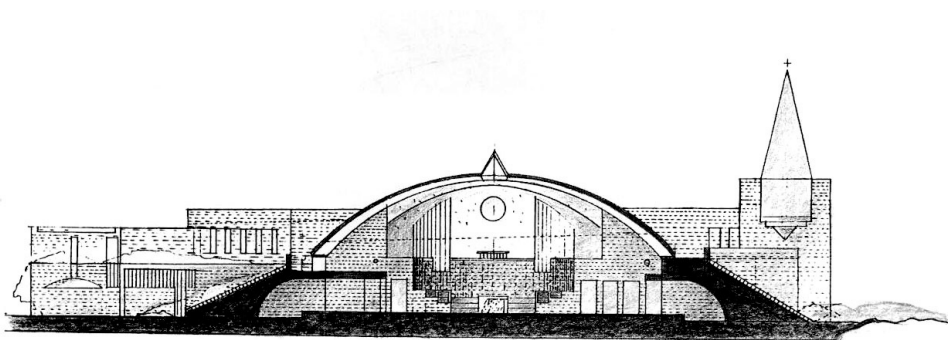
Városmajor church, Budapest, Aladár ÁRKAY 1932.

- free style – freedom of restrictions



Notre-Dame-du-Haut, Ronchamp 1955  
*Notre-Dame-du-Haut in Ronchamp, 1955*  
Maßstab / scale 1:1000

Le Corbusier

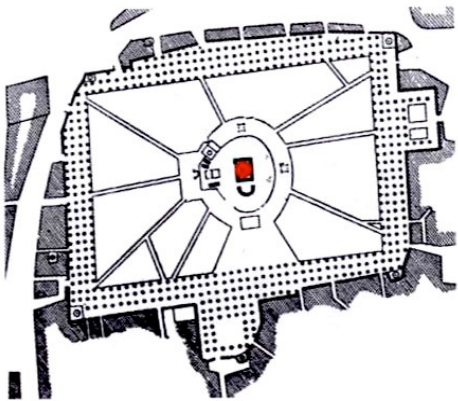


Church of Hungarian Saints, Budapest, Ferenc TÖRÖK, Mihály BALÁZS, 2000.

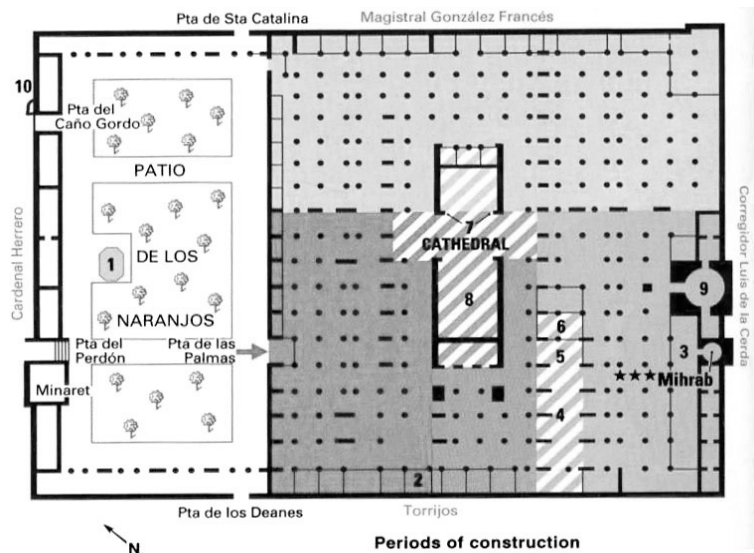
## Islam (from 610 - prophet Muhammad)

Muslim temples are mosques  
mosque = place of prostration

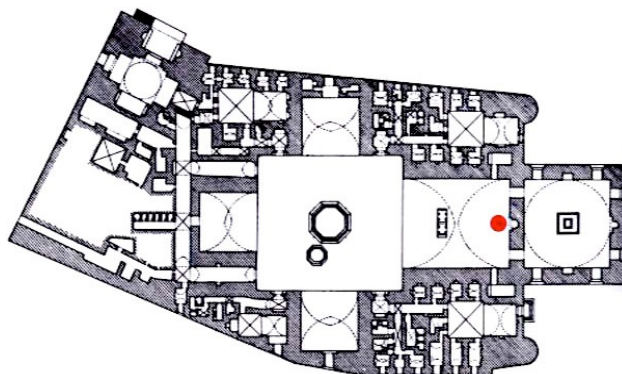
- orientation of praying towards Kaaba in Mecca
- unified with other public functions (school, university, library, hospital, home of arm people, public bath)
- major elements:
- kiblah wall – indicates the direction of prayer
- mihrab, niche in the kiblah wall
- courtyard
- minaret – tower (numbers are different of denominations (Shia, Sunni))
- fountain for ritual cleaning
- no incorporate the human body
- decoration is based on plants and geometric motifs
- use of scripts – verses from the Koran



18 Große Moschee mit der Kaaba, Mekka 16. Jh.  
Great Mosque with Kaaba in Mecca, 16th century  
Maßstab / scale 1:5000



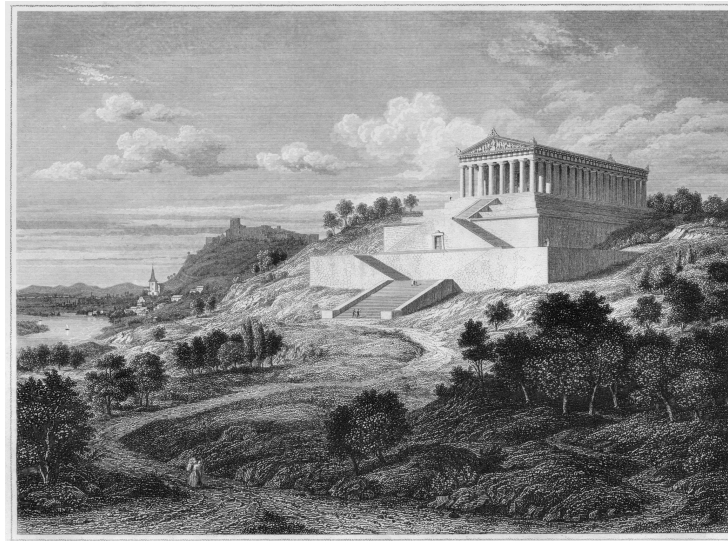
Cordoba, Mezquita, 8th C, later refurbished for Catholic church, but the main space had been kept.



20 Sultan-Hassan-Medrese, Kairo 1356  
Sultan Hassan Madrasa in Cairo, 1356  
Maßstab / scale 1:2000

type without colonnade, influenced by pre-islamic Persian palace architecture – large open vaulted halls

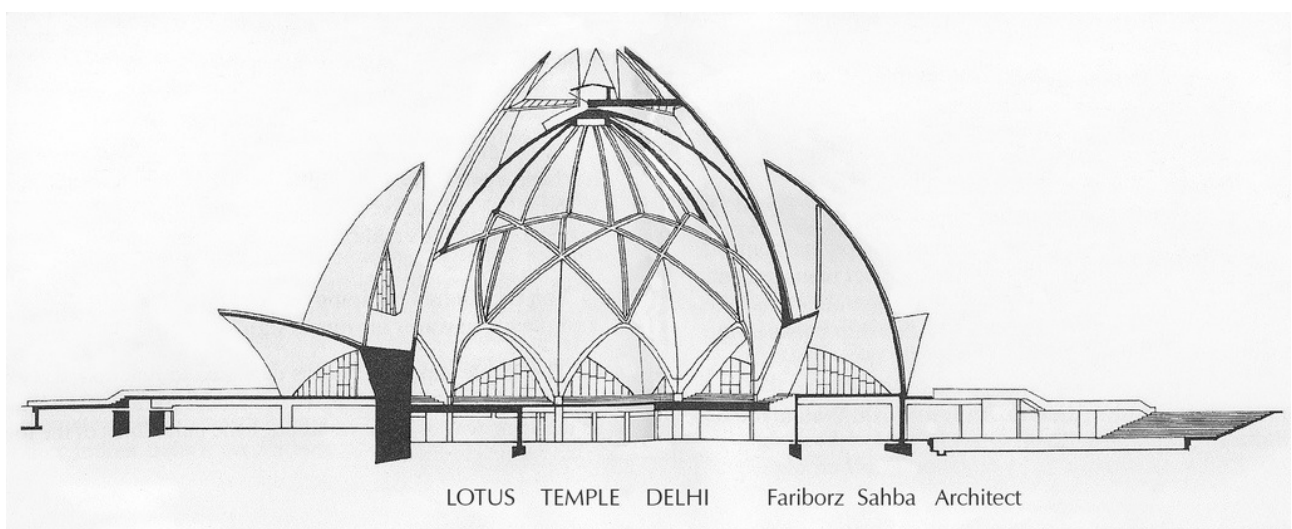
Classical and modern temples (some based on fake political phylosophies)



Walhalla temple Germany, Leo von Klenze 1842



Nazi Ehrentempel Munich, 1936 (destroyed)



Bahá'í temple Delhi, Fariborz Sahba 1986.

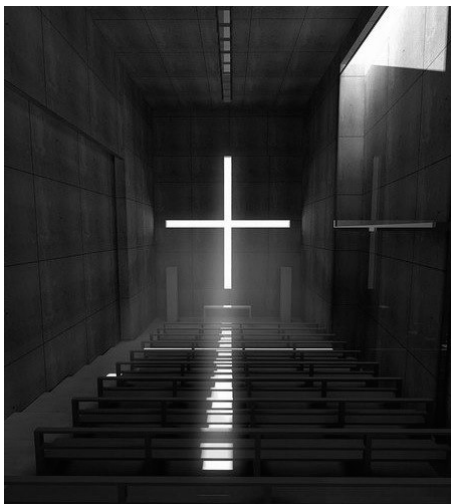
symbolism



## Modern churches



Church of Hallgrímur, Reykjavik, Iceland, G. Samuelsson 1940-86  
expressionism



Church of the Light, Ibaraki, Japan, Tadao Ando 1989



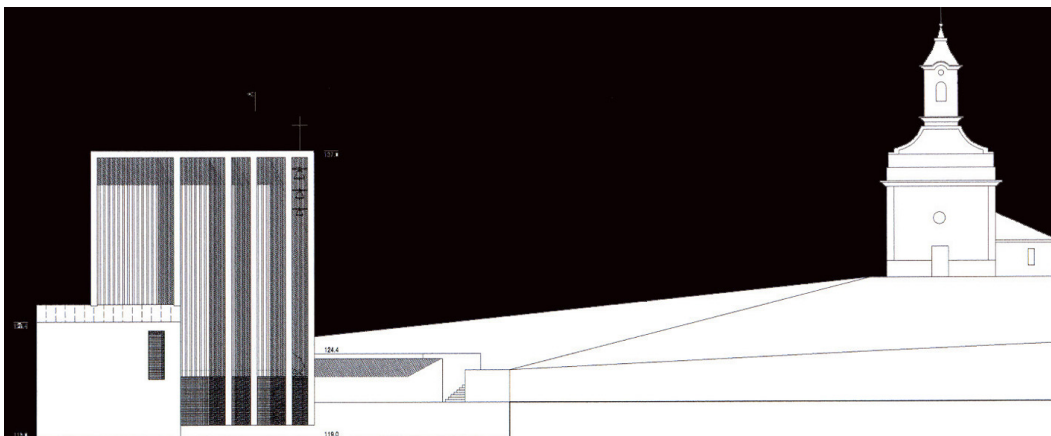
Church on the Water, Tomamu, Japan, Tadao Ando 1988



St Benedict Chapel, Sumvitg, Switzerland, P.Zumthor 1988



Jubilee Church Rome, Italy, Richard Meier 2003



Catholic chapel, Győr-kismegyer, Hungary, Mihály Balázs 2010