

HISTORY OF ARCHITECTURE I
ARC 2313 - SPRING 2022

LECTURE-25
1 APRIL 2022

For Monday, 4 April

Ingersoll: 328 - 332

Reminder: Test #3
Friday, 22 April 2022
(Lectures 22-31)

Domes as an Act of Faith

Constantinople // Jerusalem // Ravenna

But first, let's check where
we ended up last time



Constantine

moved capital of Roman Empire to Byzantium in **330 CE**

Byzantium is renamed Constantinople

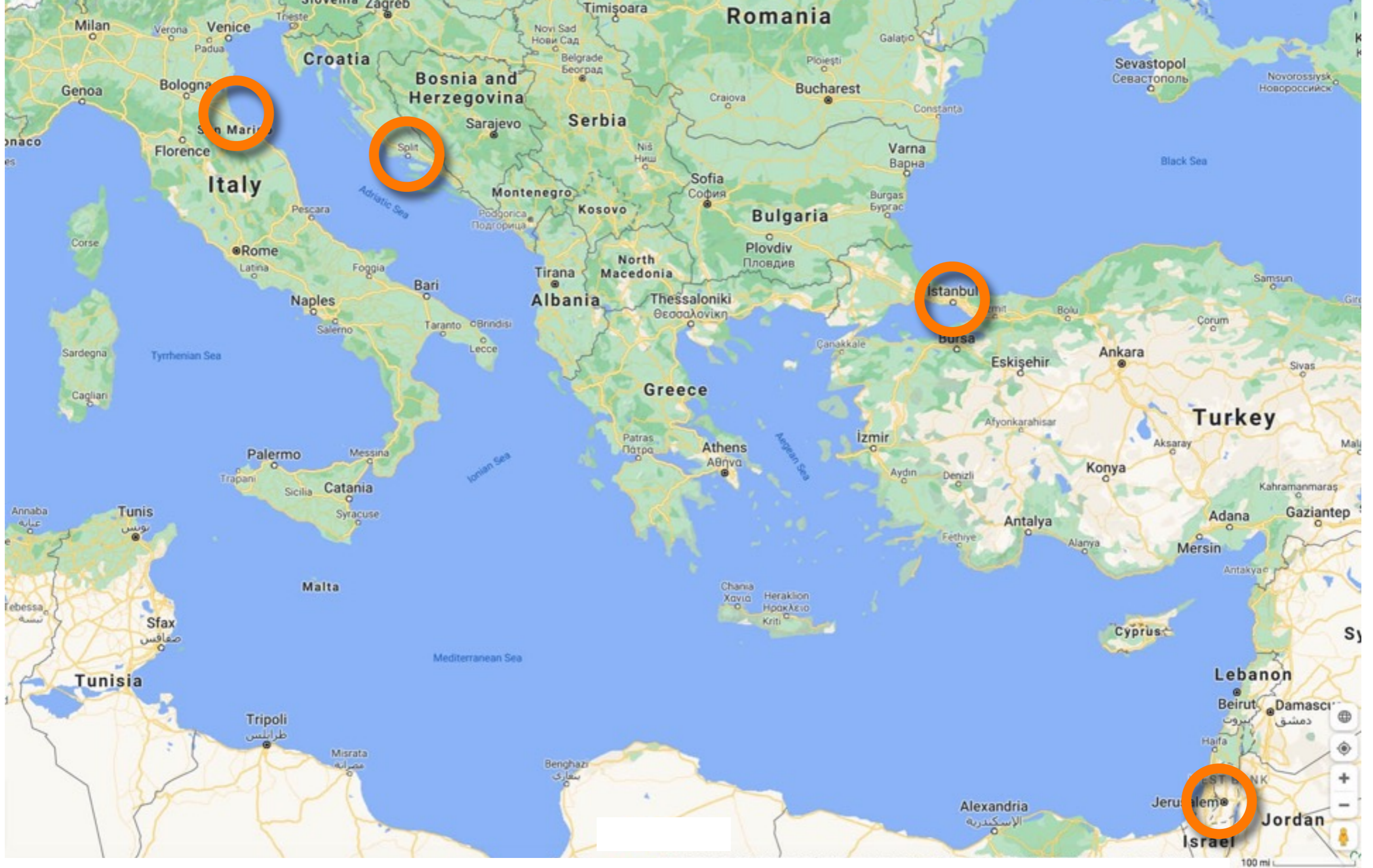
Constantine finished Maxentius's basilica before leaving town but adorned it with a colossal statue of himself and it became Constantine's Forum

FALL OF ROME 476 CE

- >> Rome declines further after Constantine departure
- >> Visigoths sack Rome in 410 CE
- >> Vandals sack Rome in 450 CE
- >> Rome falls in 476 CE
- >> Franks invade and kill many 576 CE
- >> 476 CE marks the beginning of the Dark Ages or Middle Ages

Let's check the maps to see where we've been and where we're headed:

Ravenna, Split, Constantinople, and Jerusalem



RAVENNA

SPLIT

CONSTANTINOPLE

JERUSALEM

CONSTANTINOPLE

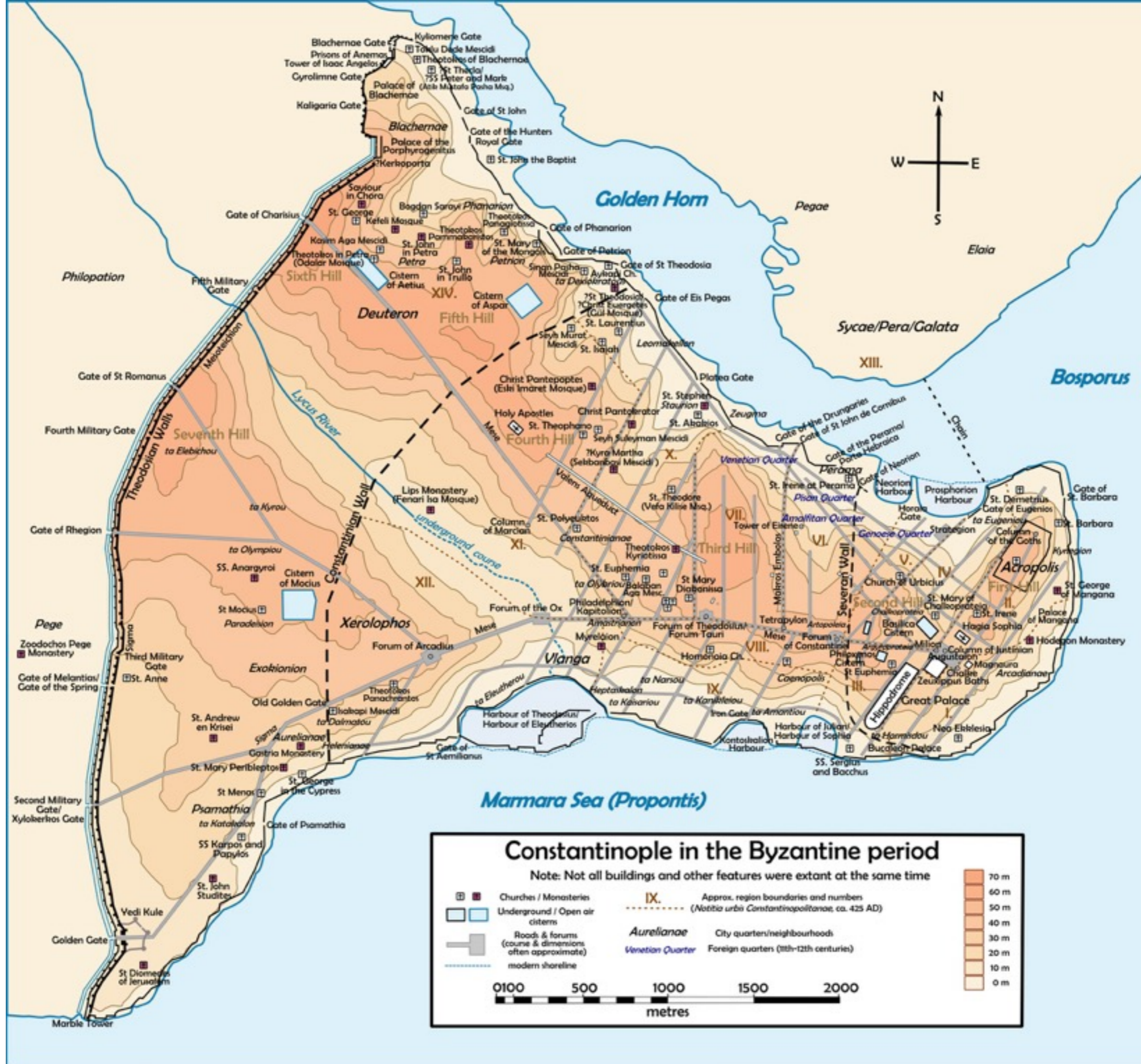
Establishing Constantinople and providing architectural patronage in **Rome, Constantinople,** and **Jerusalem** are among his greatest accomplishments

Black Sea



Constantinople

Sea of Marmara



330:

Byzantium >> Constantinople

1453:

Constantinople >> Istanbul

Byzantium >> Constantinople

Ancient Greek city of Byzantium becomes the capitol of the new ***Eastern Roman Empire***

A crowded city with fire, health and population issues. City mainly built of timber.

Due to many fires and earthquakes, the city was transformed into a dense urban fabric dotted with distinct and powerful monuments

The city was complicated, confusing, non-linear —
hence the adjectival figure of speech *byzantine*



HAGIA SOFIA

Three church *types* develop under Constantine that are still in use:

¶ *basilica form* - nave with three or five aisles

> St. John Lateran, Rome

> St. Peter's, Rome

¶ *central plan church* - includes *Greek Cross*

> Apostoleion, Constantinople

> St. Vitale, Ravenna

¶ *bapistry* - as a separate pavilion or annex

> St. John Lateran, Rome

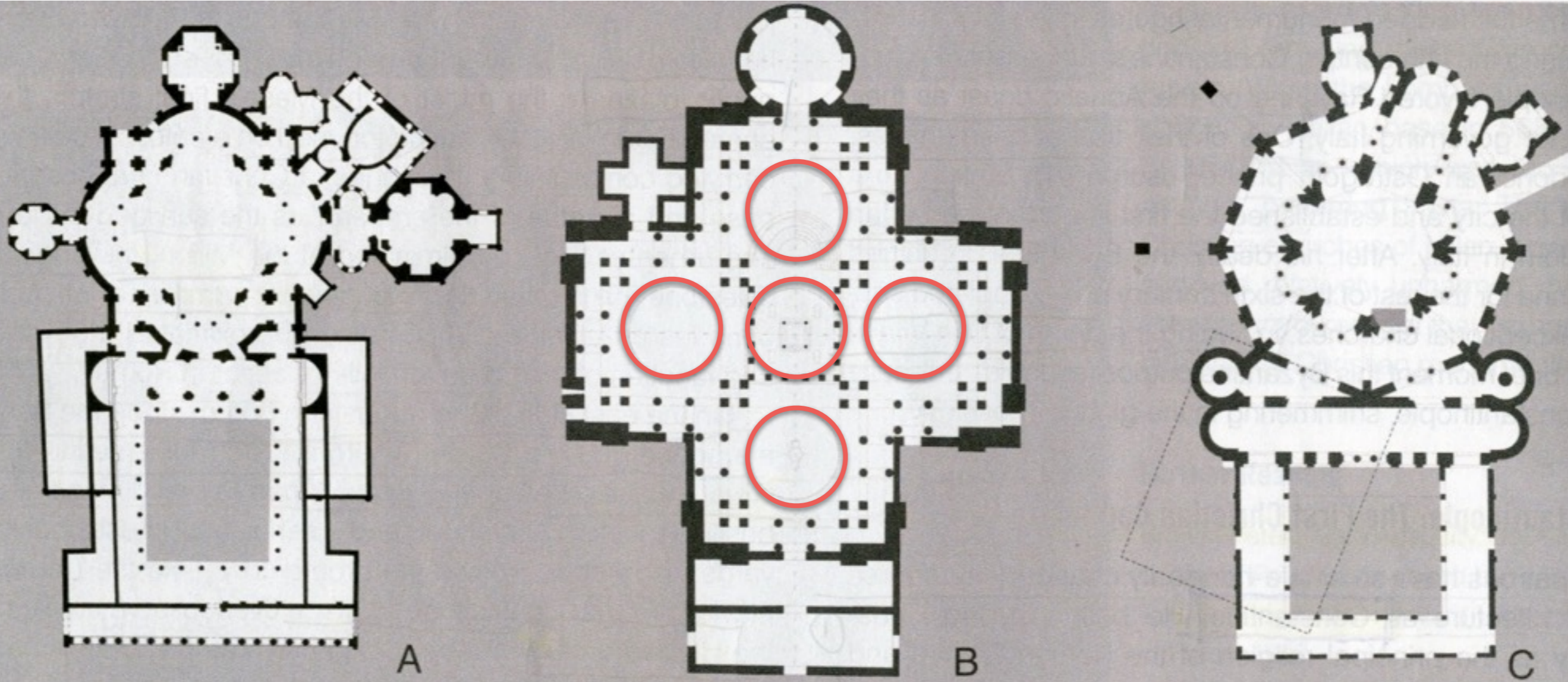


Figure 6.2-1 Central-plan churches, equidistant on all axes from the crossing; (A) San Lorenzo Maggiore, Milan, 380s; (B) Apostoleion, Constantinople, 330s; (C) San Vitale, Ravenna, 526.

Apostoleion
(Constantinople)

St. Vitale
(Ravenna)

Apostoleion

(Constantinople - 330 CE)

(ah-post-OH-lay-ee-on)

Razed by 1100 CE but was used as
the model for ***St. Marks in Venice***

A central-plan church - ***Greek Cross*** -
that, when including the crossing,
created *five domes*, known as a:
quincunx (*keen-synch*)



ST. MARKS VENICE

ST. MARKS VENICE



JERUSALEM



JERUSALEM

BASILICA OF THE HOLY SEPULCHRE

(Jerusalem - 326 CE)

(Holy SEP-uhl-kur)

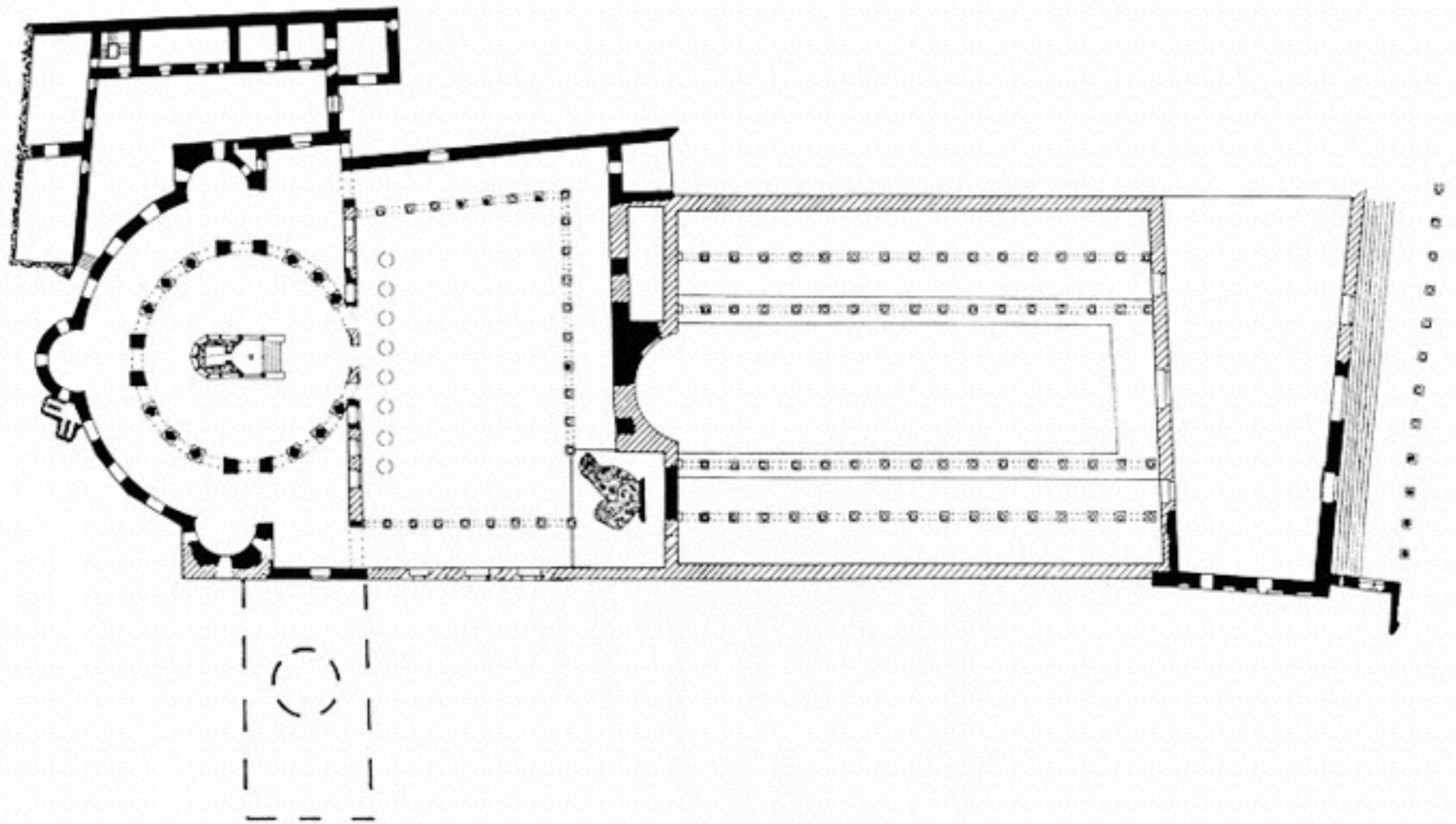
Designed by same designers as ***Hagia Sofia***,
which we'll get to in a moment

The *Holy Sepulchre* project was led by
Constantine's mother, *Helena*, an avid
Christian who researched the sites and found out:

- ***Golgotha*** (outcropping of Calvary within the church)
- ***relic*** of the true cross in crypt
- ***Anástasis*** (dome // martyrium) symbolizes the resurrection

*Santa Constanza in Rome also had an **Anástasis**
(this church named for Constantine's daughter)*





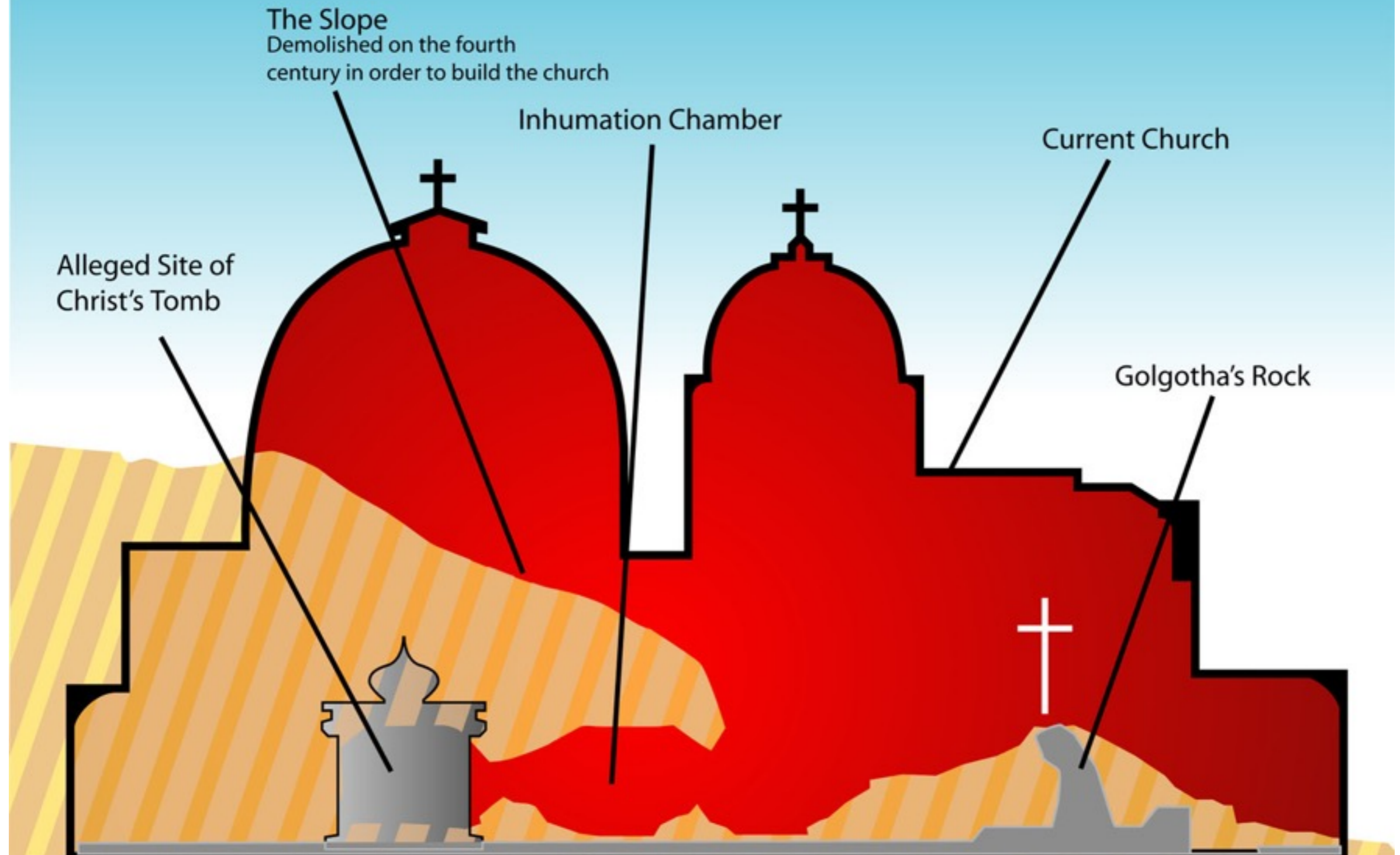
Basilica of the Holy Sepulchre - Jerusalem (326 CE)

Dome over the Aedicula is called the Anástasis

basilica form leads to Anástasis - ambulatory leads to Golgotha

Calvary

On the first century A.C.
it was just a rocky
denivellation outside the town





The *Aedicula* beneath the *Anástasis*—contains the sacred tomb



ANÁSTASIS



ANÁSTASIS



Inside Adam's Chapel at the Basilica of the Holy Sepulchre

HAGIA SOFIA

Hagia means *holy*
Sofia means *wisdom*

Church of the Holy Wisdom

Hagia Sofia

(Constantinople - begun **326**)

Destroyed once **404** - by rioters

Destroyed twice **532**

(this time by sports rioters who rose up against Emperor Justinian as a result of a sporting event)

Hagia Sofia (532)

Justinian I (527-565)

(after Justinian executes 30,000 sports rioters in the hippodrome)

to expiate the destruction during riots
plus personal ambition - wants to supercede
Hagia Polyeuktos



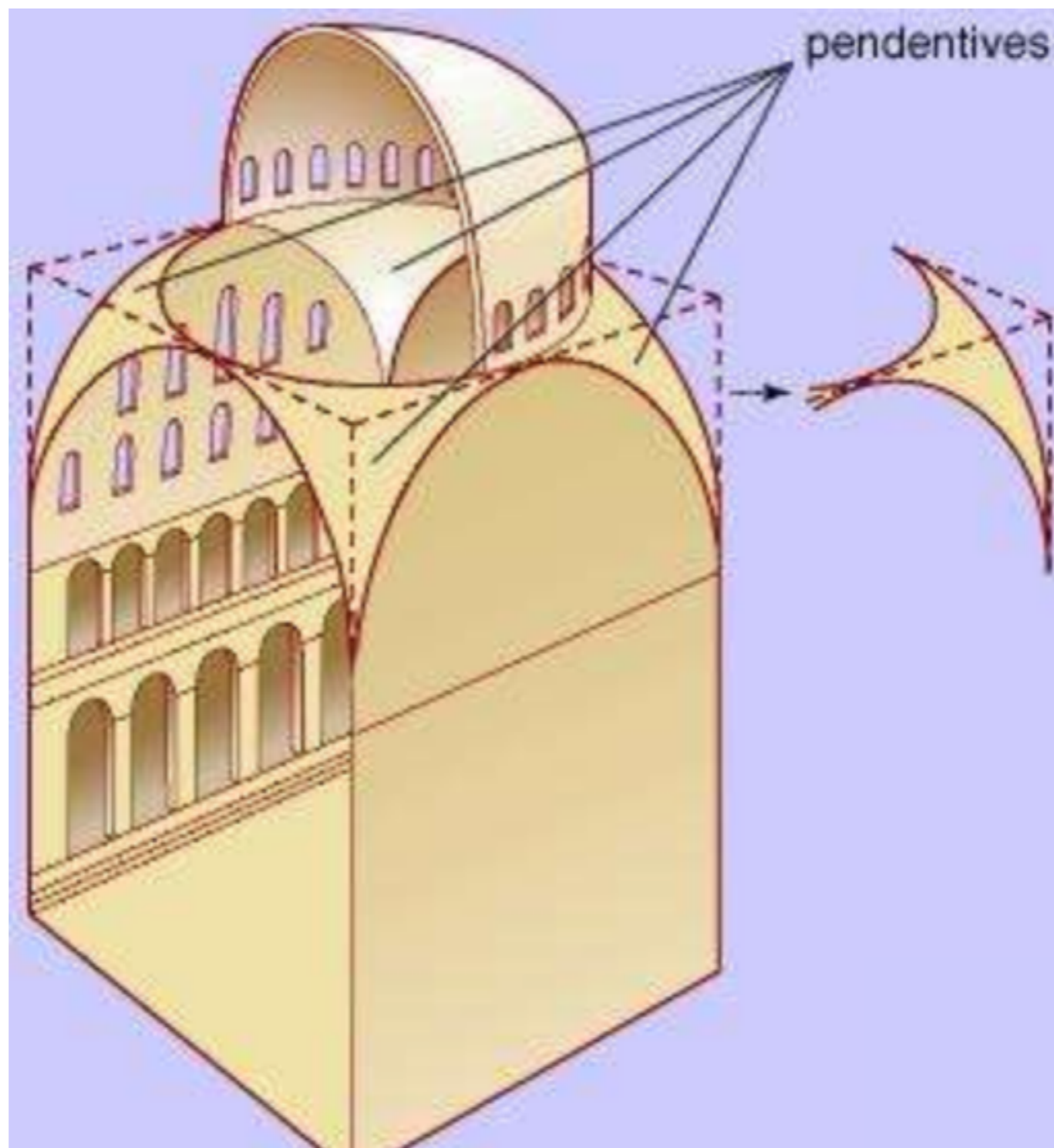
Not a strong proportional system of facade elements or understandable parts as seen from exterior

Hagia Sofia's central dome is **107 feet** in diameter and **164 feet** above the nave

clerestory lighting

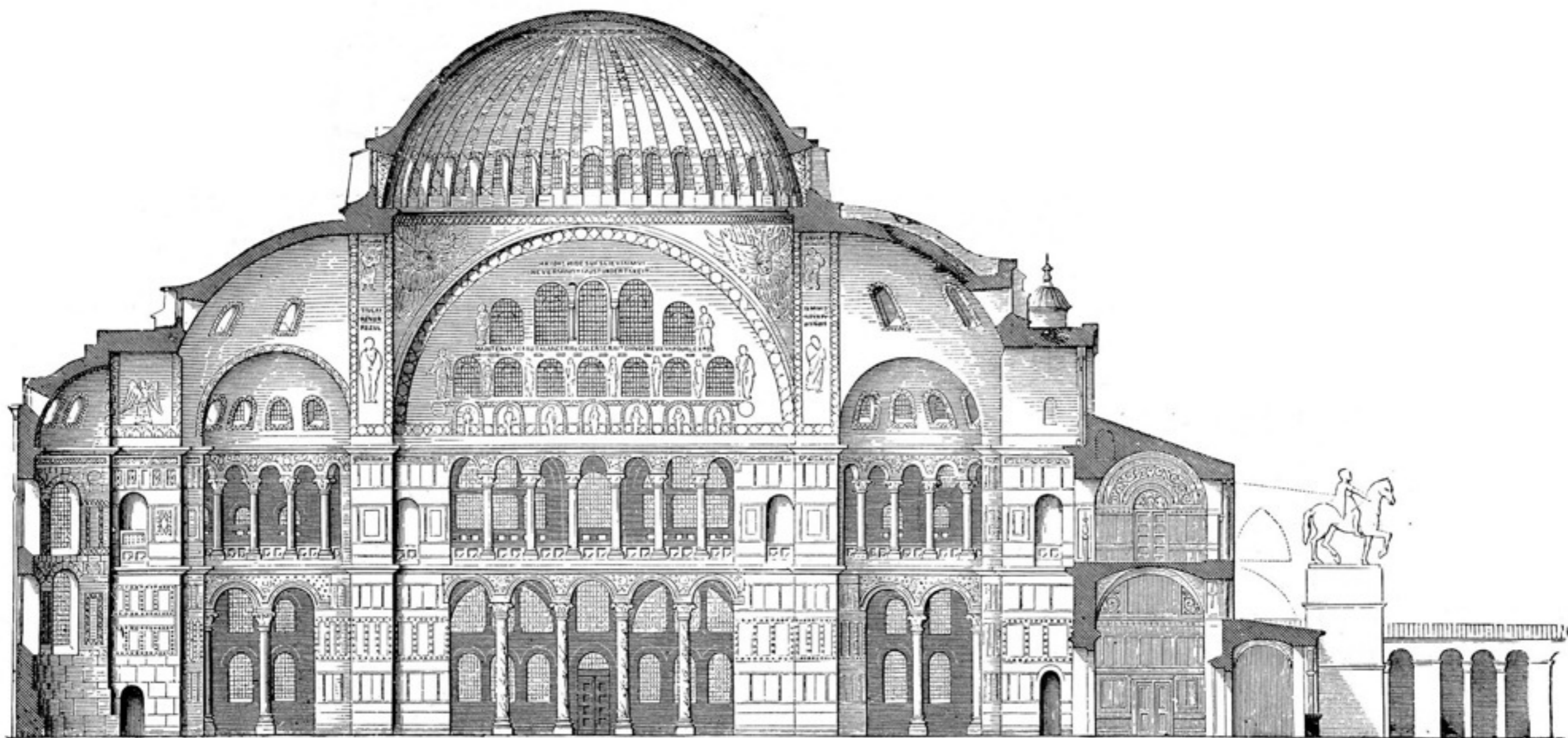
pendentives transform
the cubic piers (absorbing thrust)
into circular base for dome

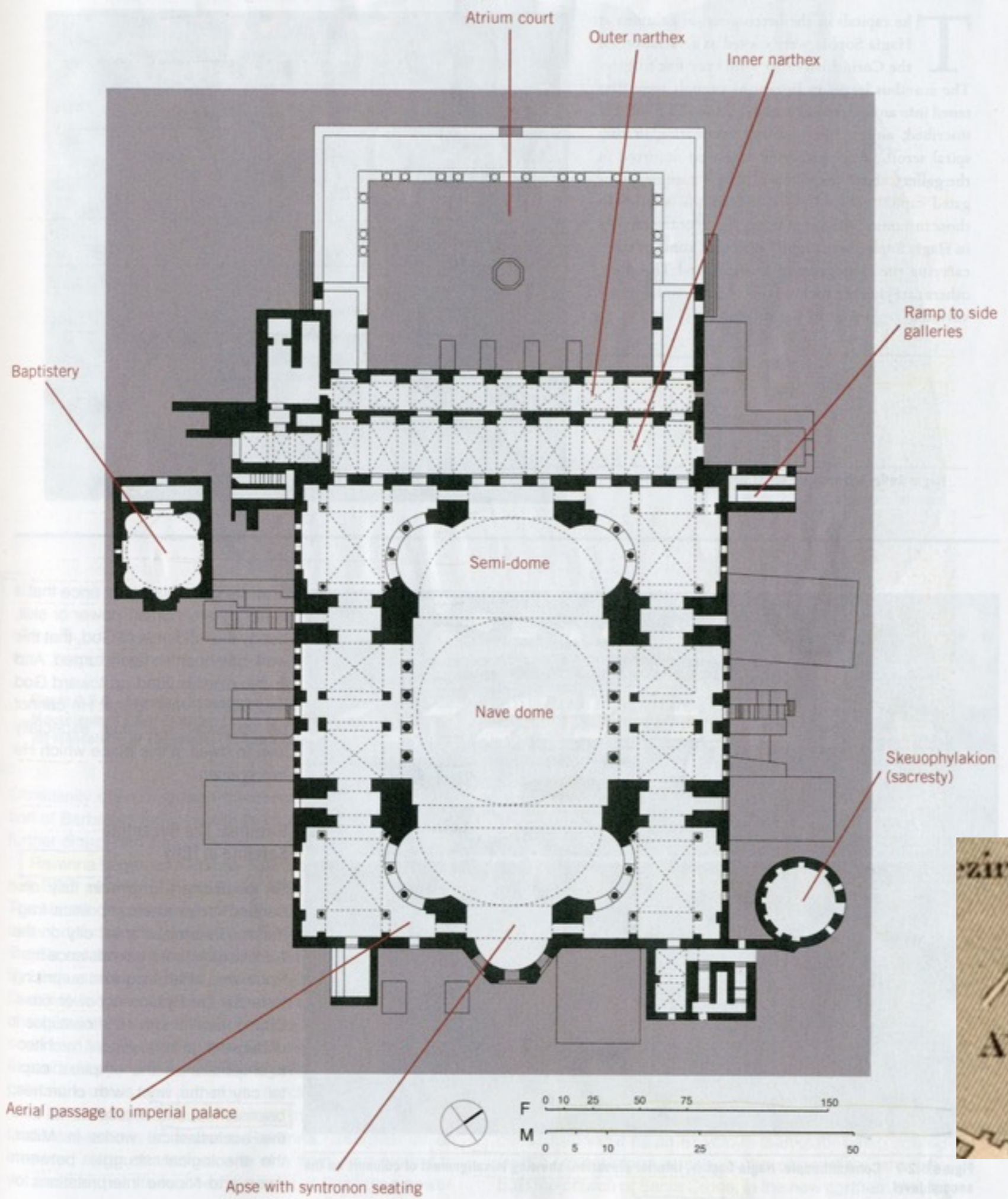
two smaller *semi-domes* east and west give
the sense that the domes are almost
floating - mysterious light

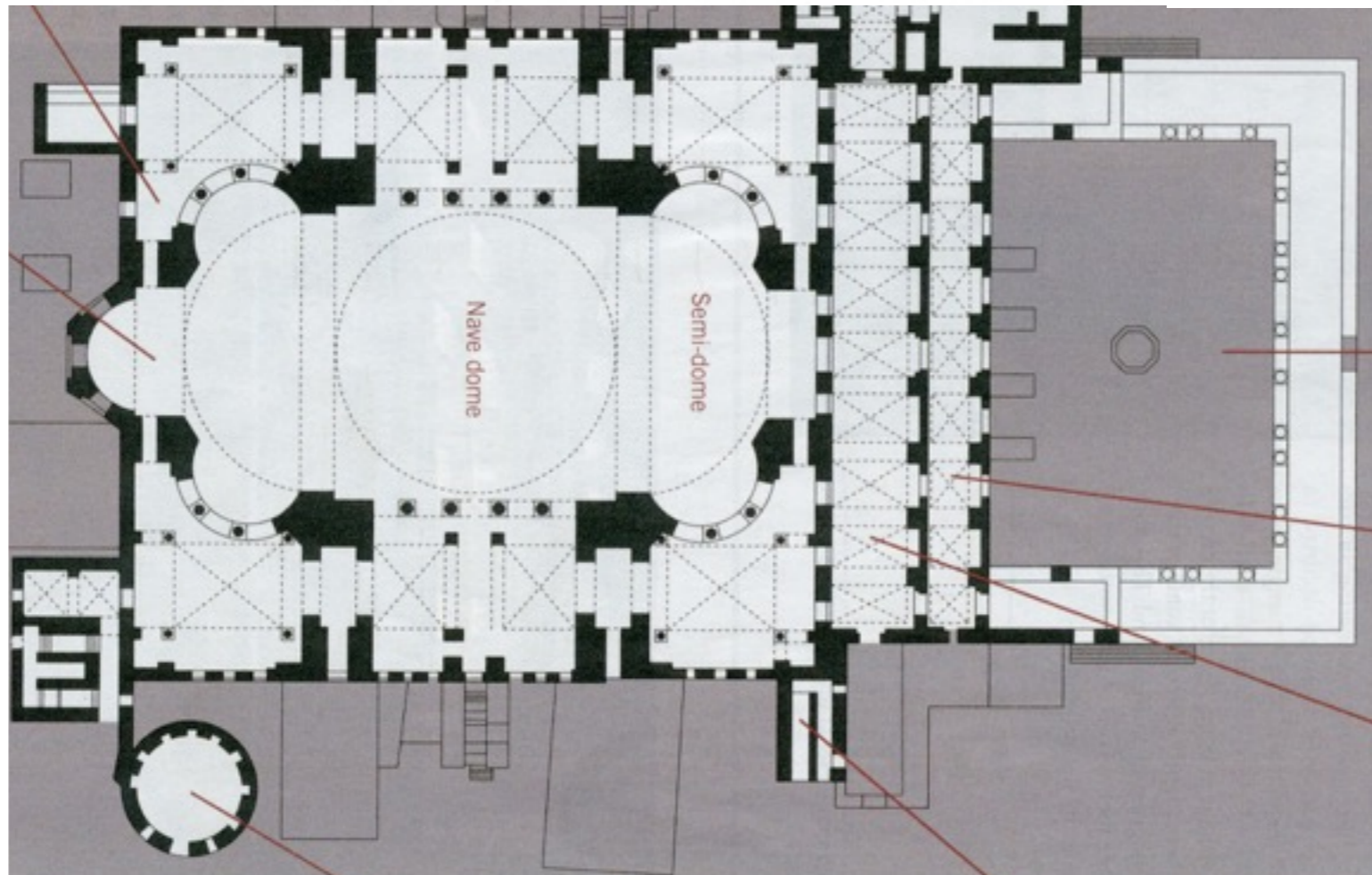
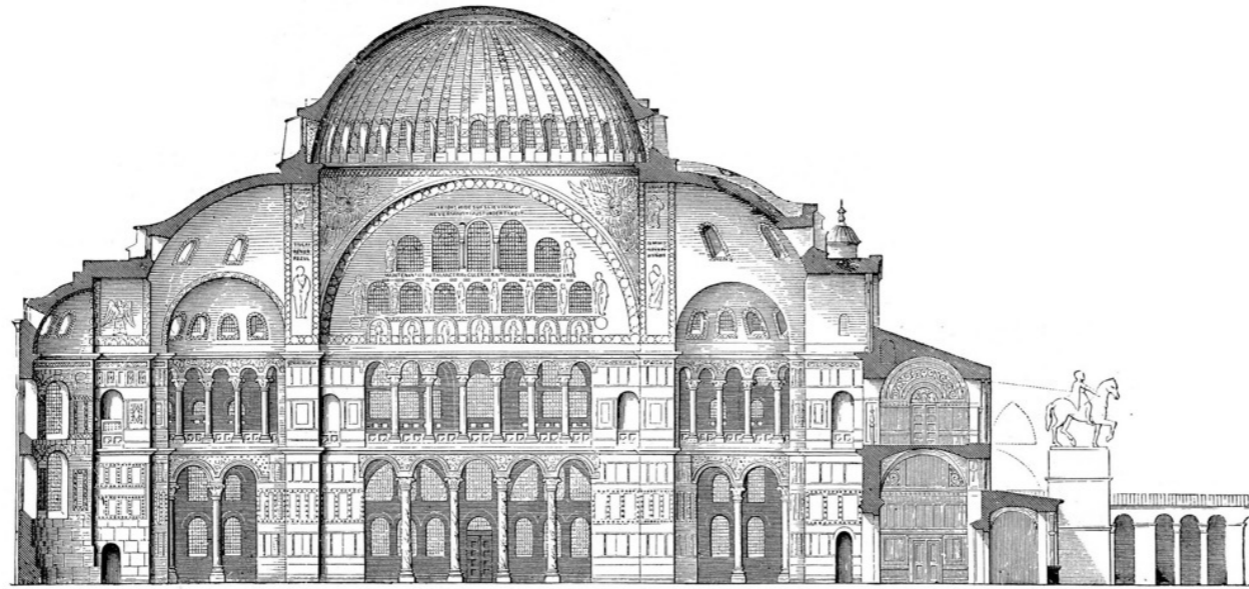


PENDENTIVE ARCH

Transforms and transmits structural forces from *circular geometry* to *rectilinear geometry*







Hagia Sofia plan and section aligned

Plan a combination of *basilica* (linear) and
centralized (Greek Cross)

the *syntronon* was cavea-like seating
in the apse for the clergy







Figure 6.2-7 Constantinople. Hagia Sophia, interior elevation, showing misalignment of columns on the second level.

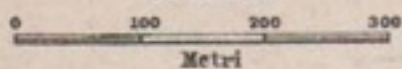


A column capital in Hagia Sofia

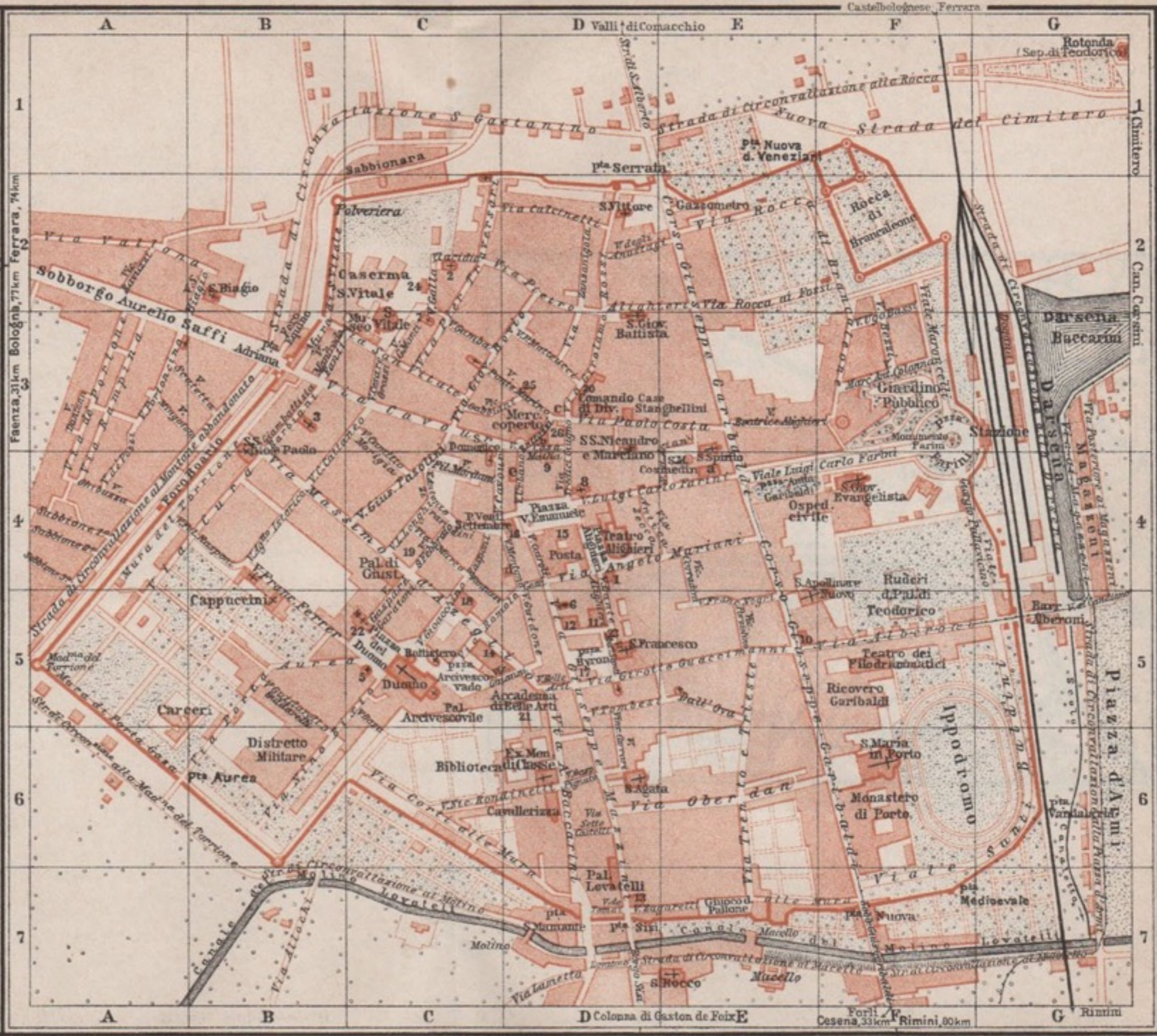
RAVENNA

RAVENNA

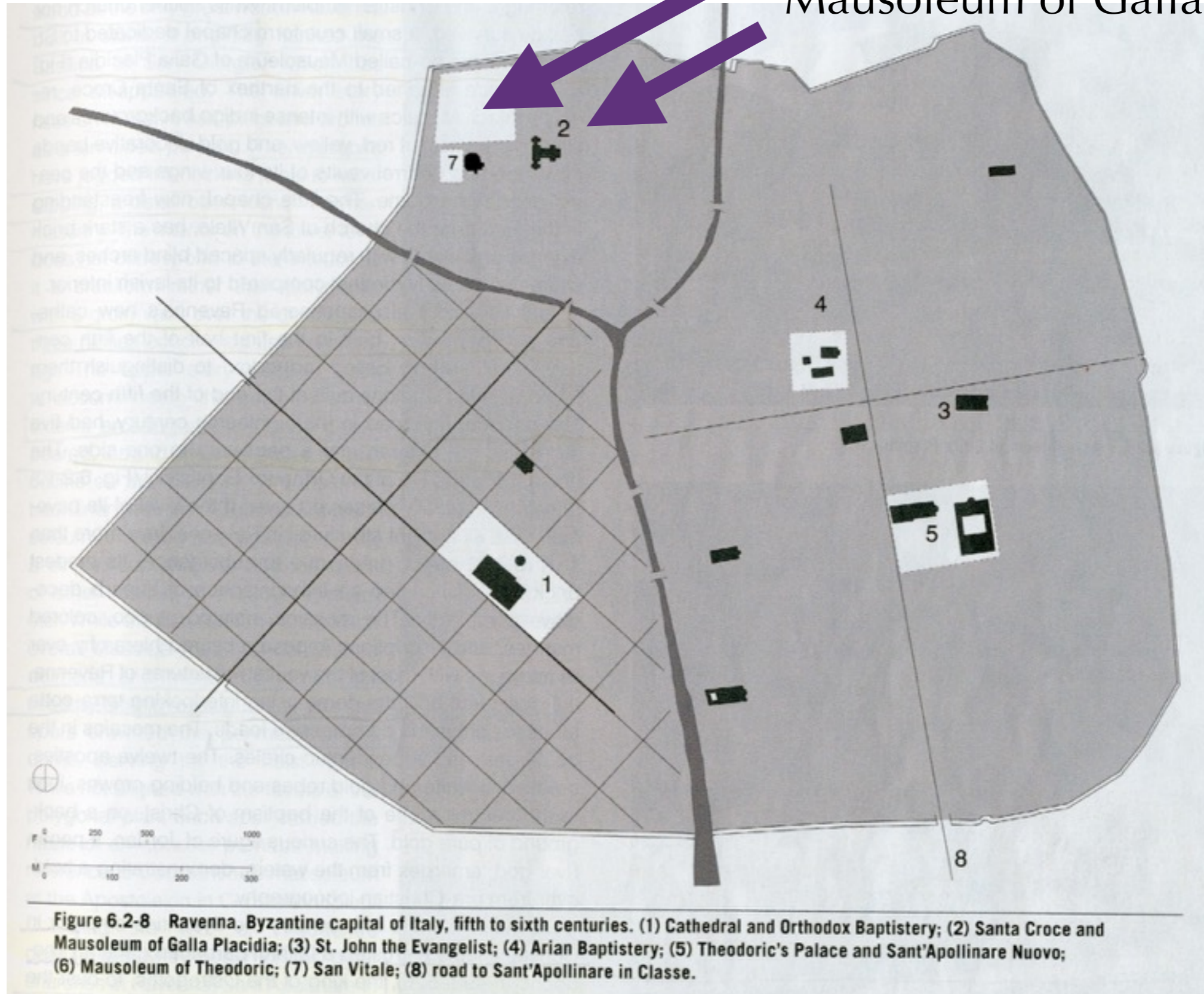
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- | | |
|------------------------------|-----|
| 1 Cassa di Risparmio | D 4 |
| Chiese: | |
| 2 S. Croce | C 2 |
| 3 S. Eufemia | B 3 |
| 4 S. Girolamo | C 5 |
| 5 S. Giustina | C 5 |
| 6 S. Maria Maddalena | D 5 |
| 7 S. Maria Maggiore | C 3 |
| 8 S. Maria del Suffragi | D 4 |
| 9 S. Michele in Africisco | D 4 |
| Palazzi: | |
| 10 degli Esarchi | E 5 |
| 11 del Polentani ora Fabri | D 5 |
| 12 " " ora Bellenghi | D 5 |
| 13 " " | D 7 |
| 14 Ginanni - Fantuzzi | C 5 |
| 15 Governativo | D 4 |
| 16 Municipale | D 4 |
| 17 Rasponi ora Cooperative | D 5 |
| 18 " già Balbi | C 5 |
| 19 " delle Teste | C 4 |
| 20 Sprelli ora del Municipio | D 3 |
| <hr/> | |
| 21 R. Istituto Tecnico | D 5 |
| 22 Seminario Arcivescovile | C 5 |
| 23 Sepolcro di Dante | D 5 |
| 24 " " Galla Placidia | C 2 |
| 25 Teatro Mariani | D 3 |
| 26 Torre Comunale | D 3 |



St. Vitale
Mausoleum of Galla Placidia



Ravenna - Byzantine capital of Italy - 400-600

Galla Placidia

424 - 438

She sponsored Ravenna's new cathedral and baptistery as well as her own mausoleum



Inside the Baptistery at Ravenna

Byzantine churches:

Simple exteriors - Lavish interiors

Figure 6.2-10 Ravenna. Orthodox Baptistery, begun during the regency of Galla Placidia, 430s.



Mausoleum of Galla Placidia - 430 CE
(she's not actually buried here, however)

Figure 6.2-9 Mausoleum of Galla Placidia, 430.

Theodoric

ruled Ravenna 493-526

An *Ostrogoth* (*barbarian*) ruler invited in by the emperor in Constantinople to oust another *barbarian*...

Ostrogoth = eastern goth

Visigoth = western goth



Barbarian kingdoms of Europe



Theodoric's mausoleum in Ravenna - **520** CE

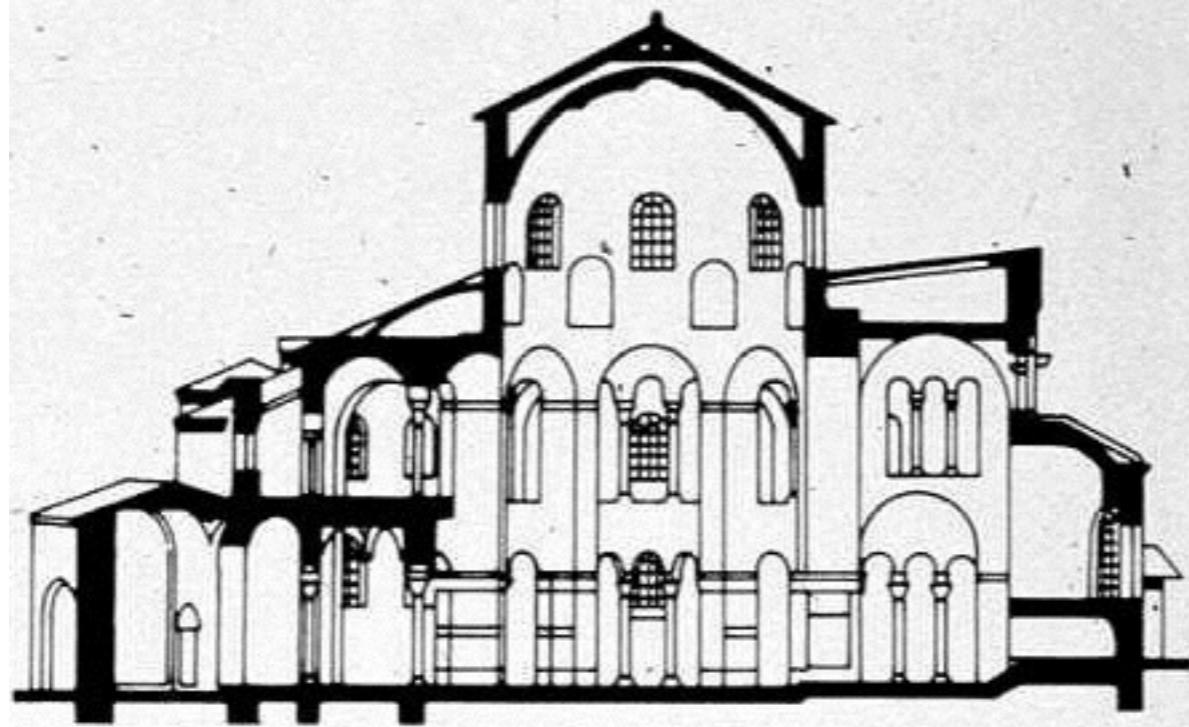


ST. VITALE

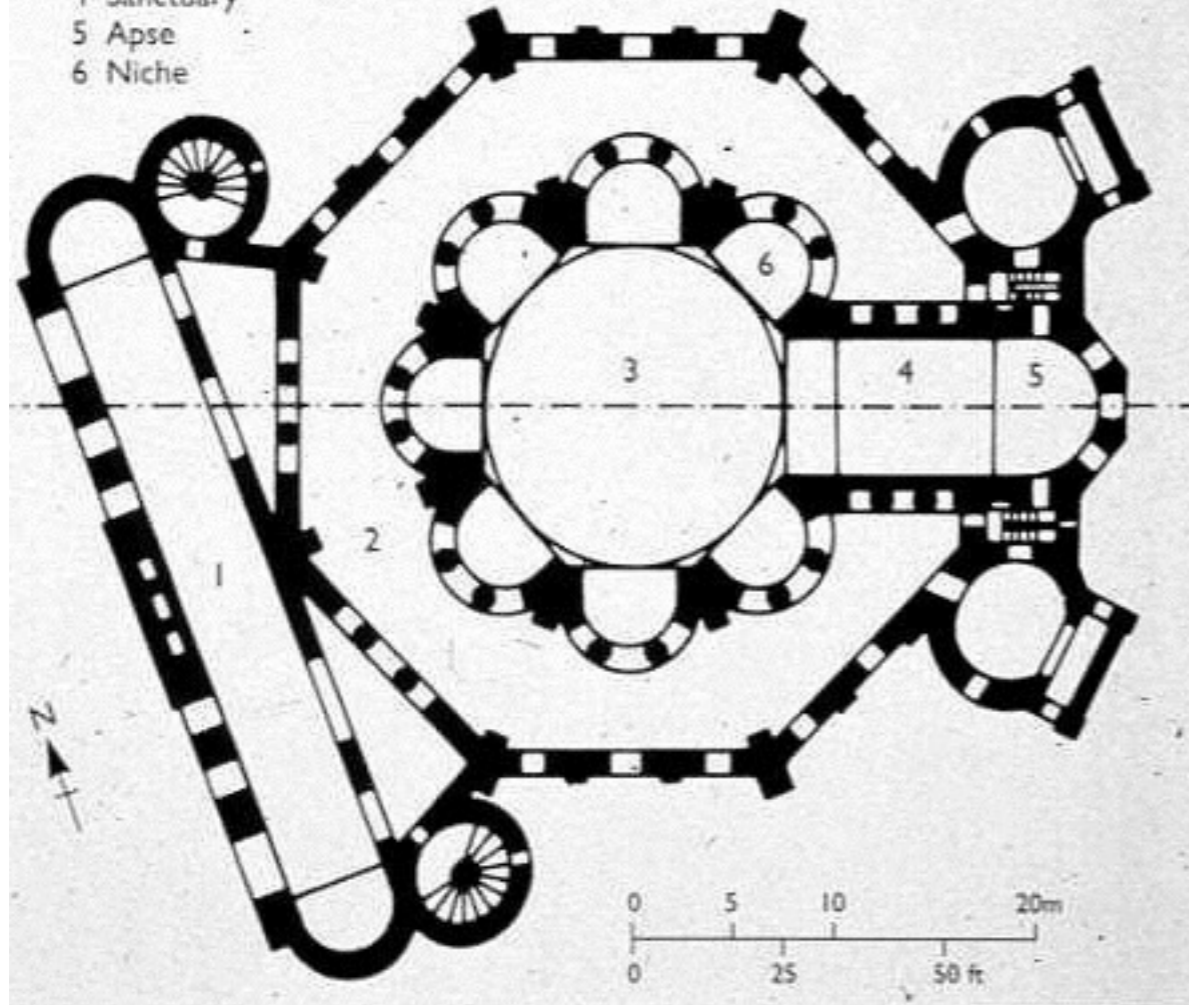
in Ravenna begun **526**

A centralized church plan
also called *martyrium*

Built by Theodoric



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



ST. VITALE

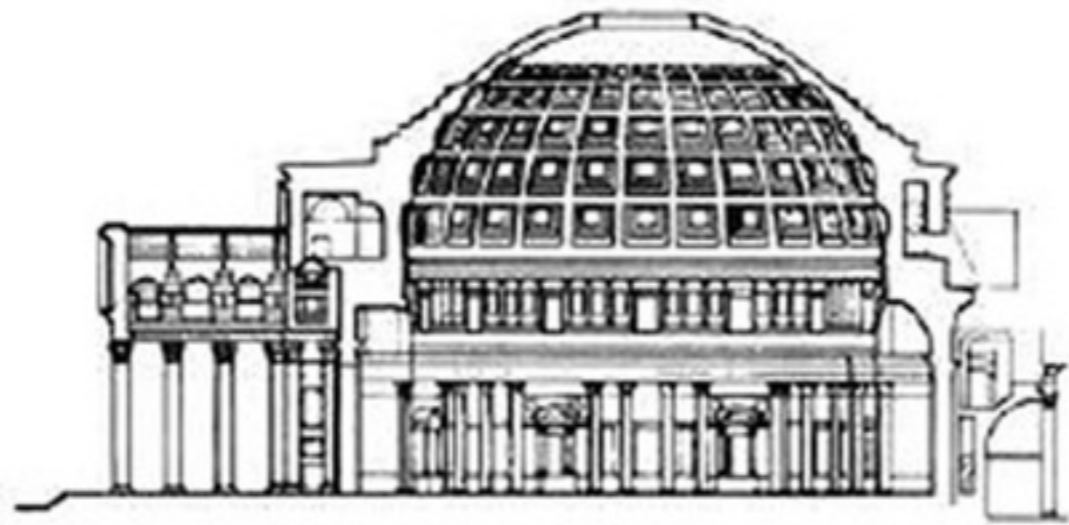
in Ravenna begun **526**

A centralized church plan also called *martyrium*

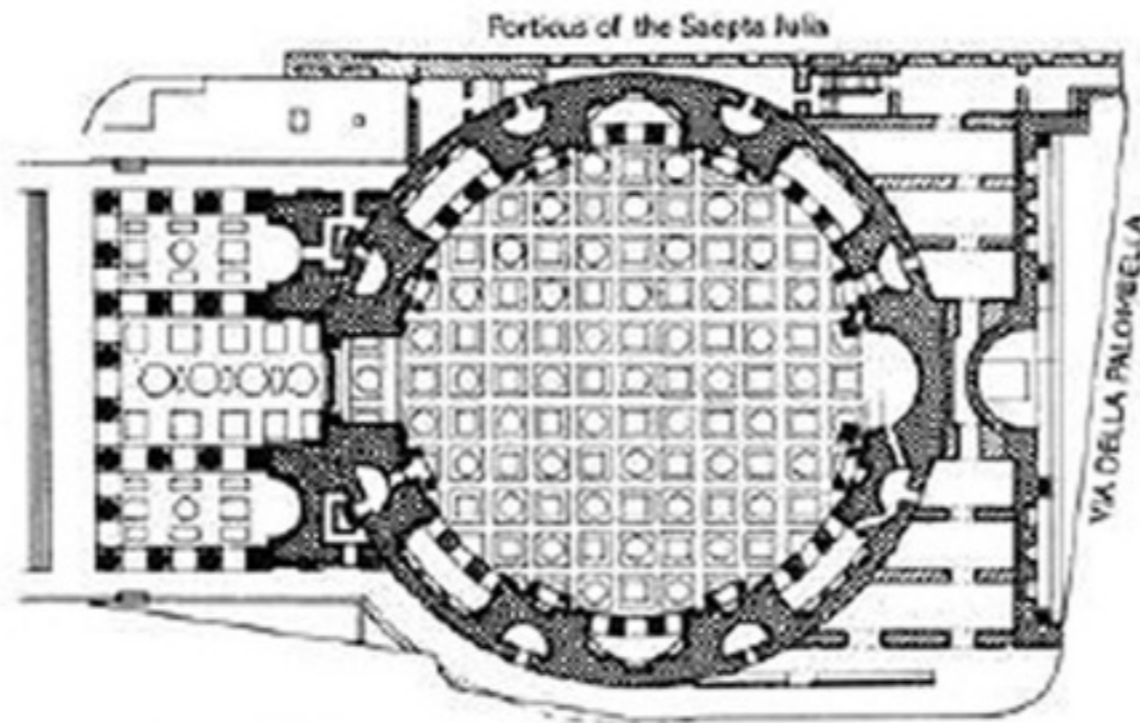
Built by Theodoric



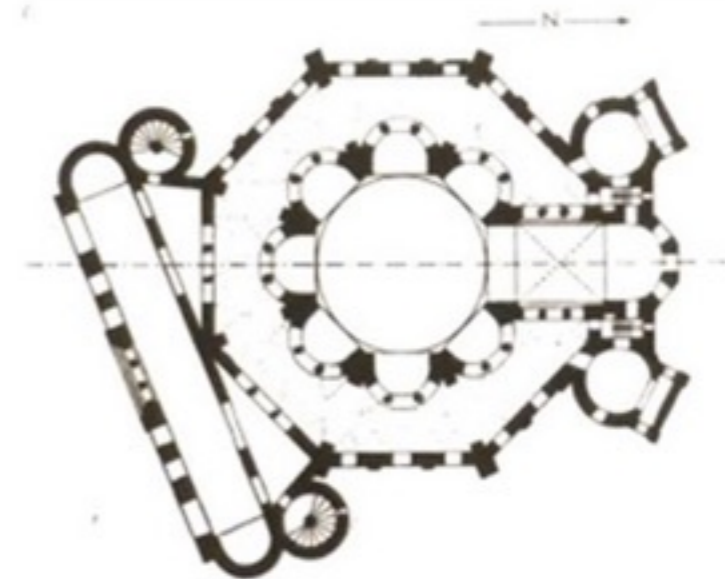
Entry facade of ***St. Vitale*** - very simple compared to the ornate interior - *Byzantine churches are all about the interior space*



VIA DELLA MINERVA



Plan of the Pantheon



Plan of San Vitale

*Pantheon in Rome at **same scale** as St. Vitale in Ravenna*

end