

HISTORY OF ARCHITECTURE I
ARC 2313 - SPRING 2022

LECTURE-17
4 MARCH 2022

For Monday, 7 March

Ingersoll: 476-496

Reminder: Test #2

Wednesday, 23 March 2022

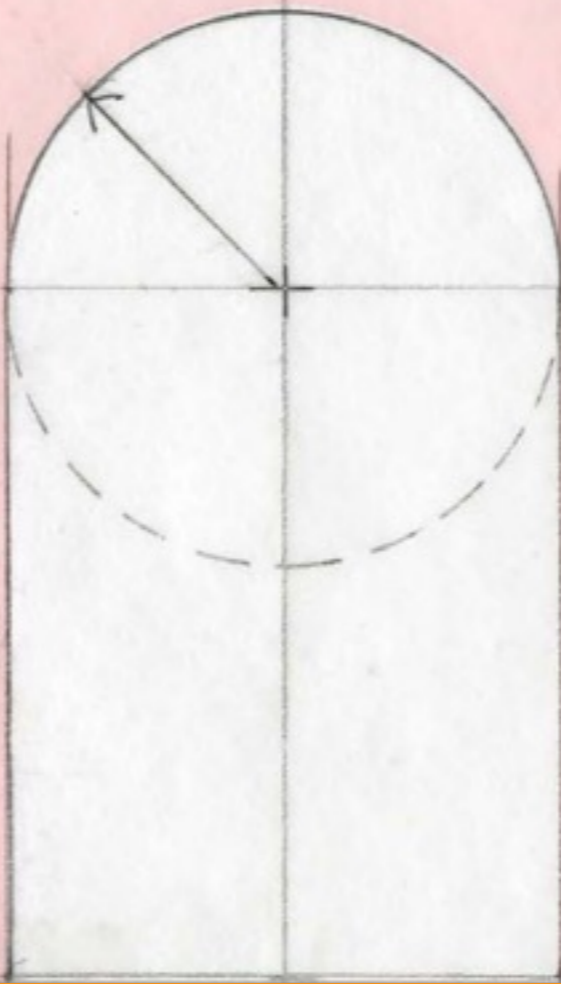
(Lectures 12-21)

Before we start, let's talk about:

Arches

*A quick look at types of arches we'll
be talking a lot about from now on*

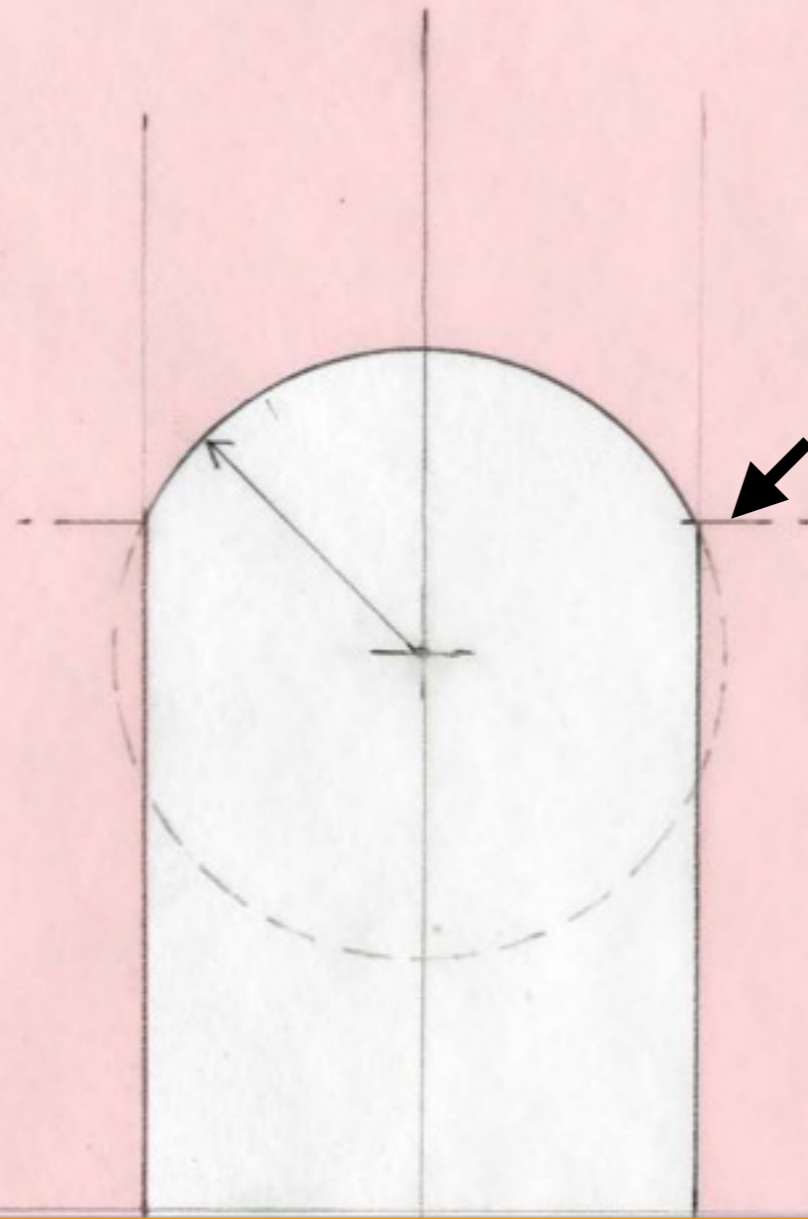
Point of
Tangency



Spring of Arch

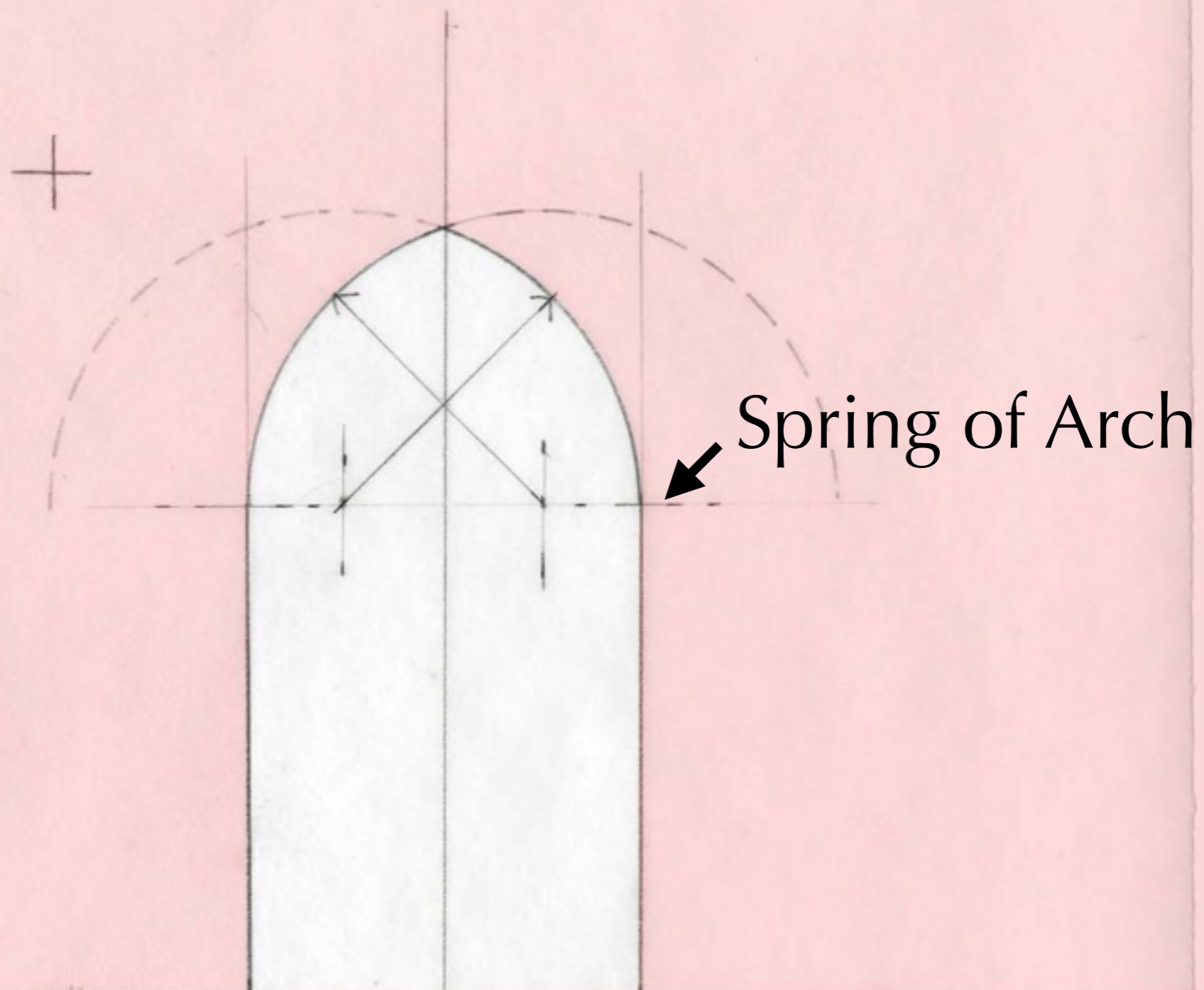
HALF-ROUND ARCH

+

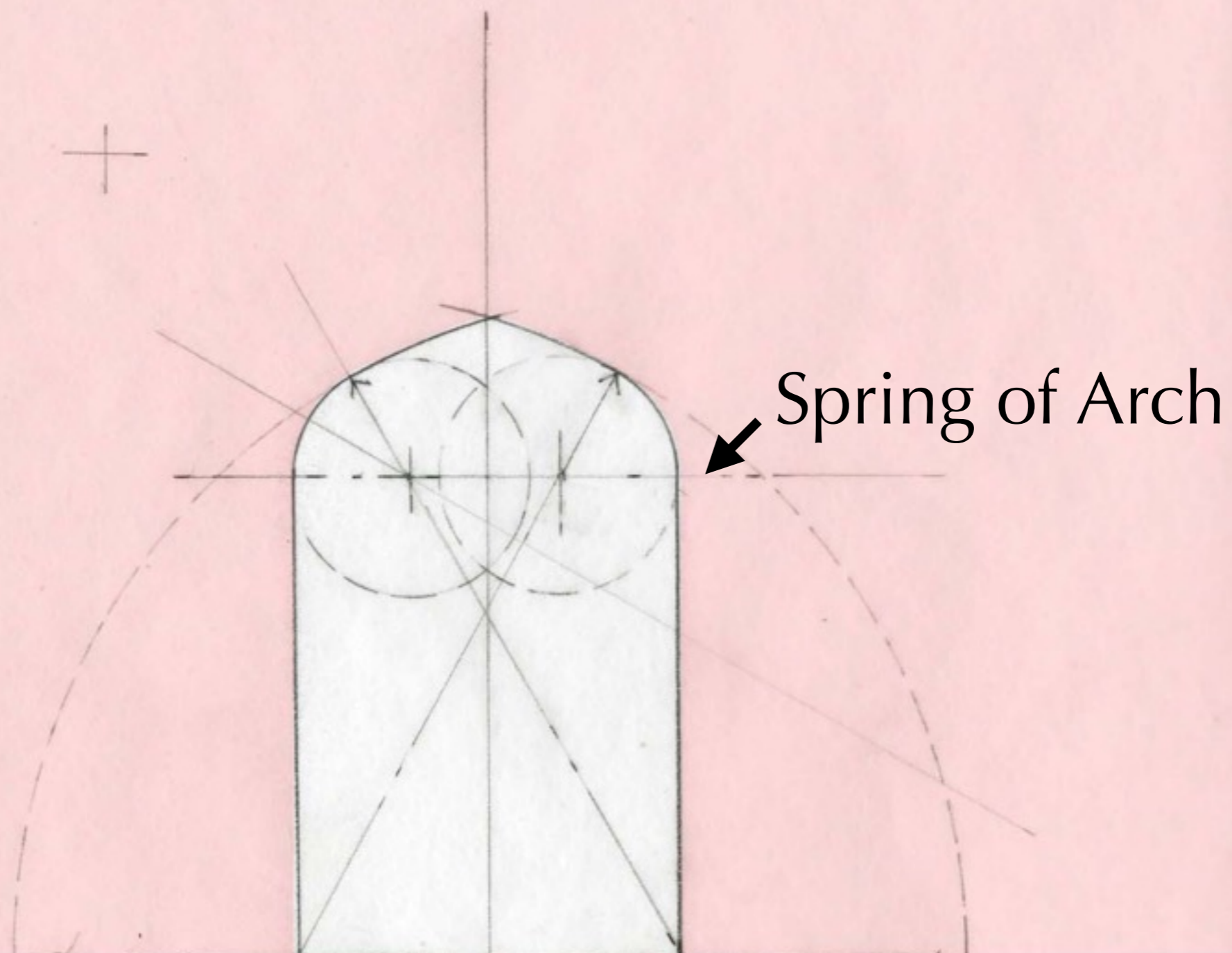


Spring of Arch

SEGMENTAL ARCH

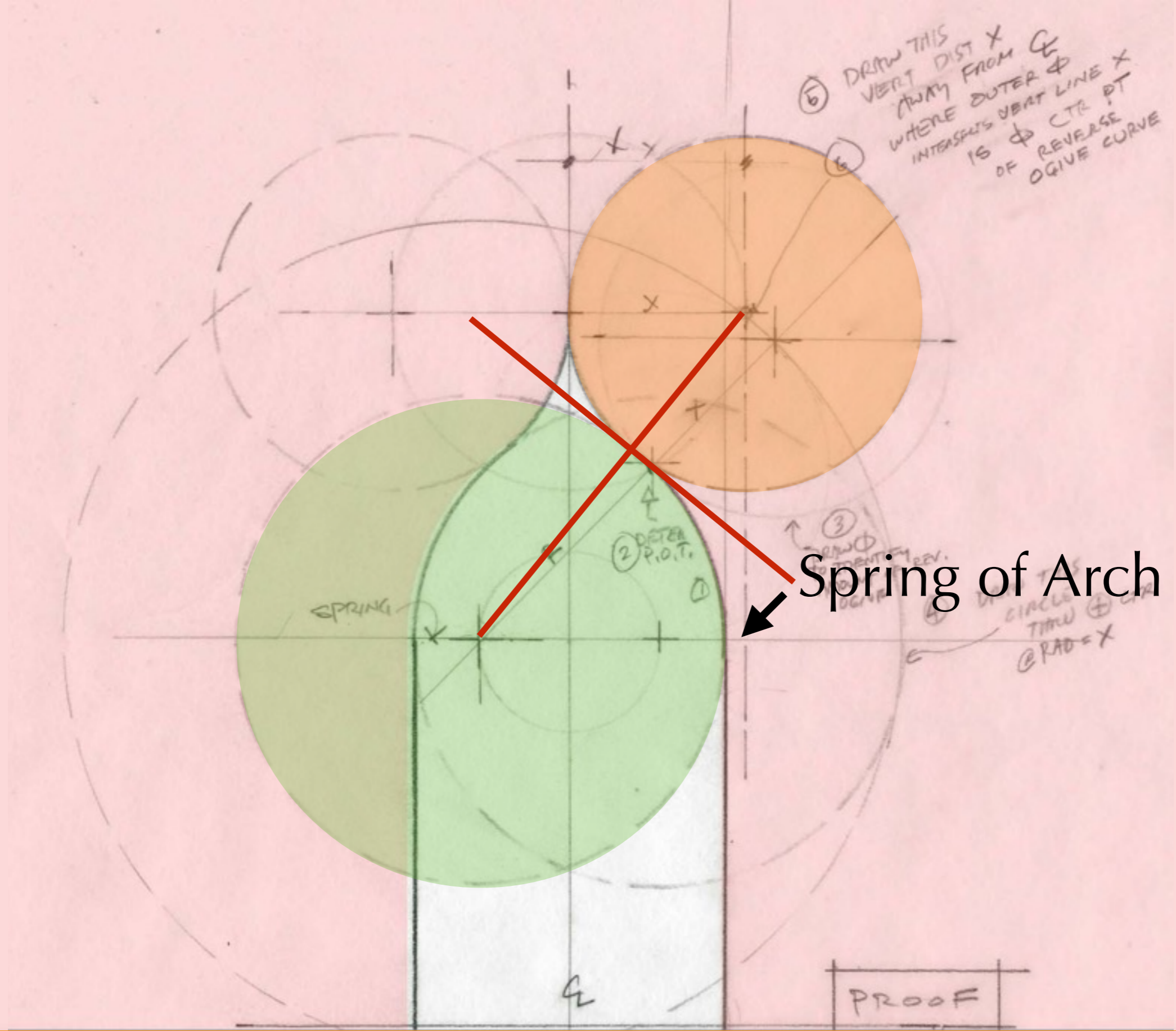


POINTED OR OGIVE ARCH



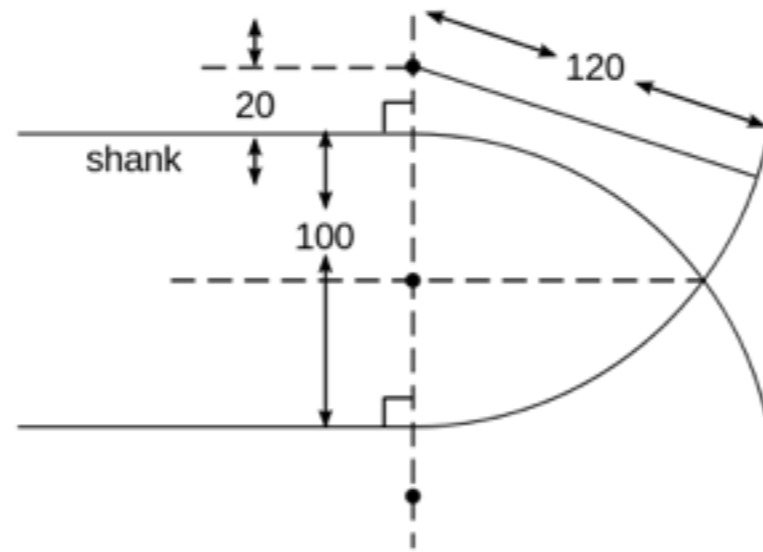
Spring of Arch

FOUR-CENTERED ARCH

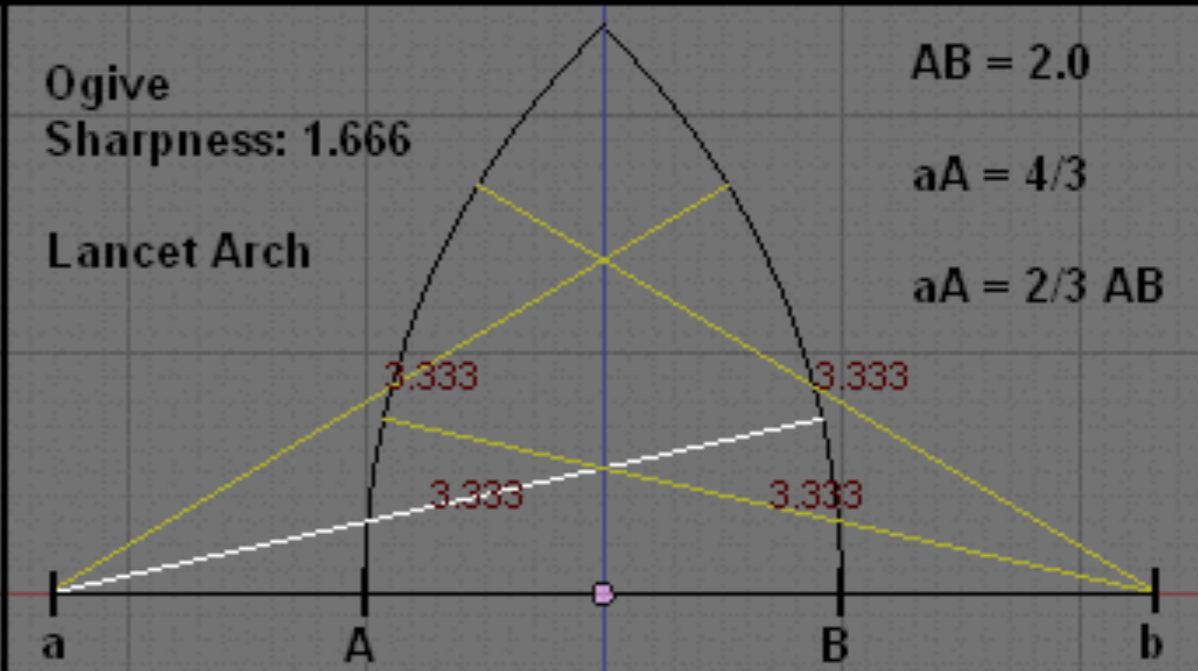
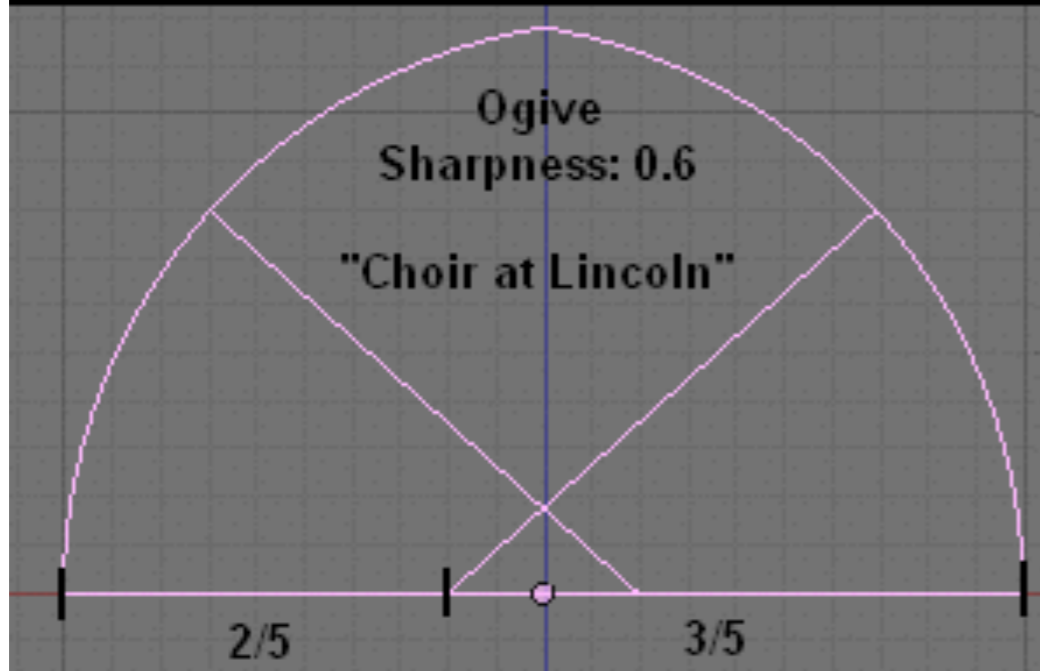
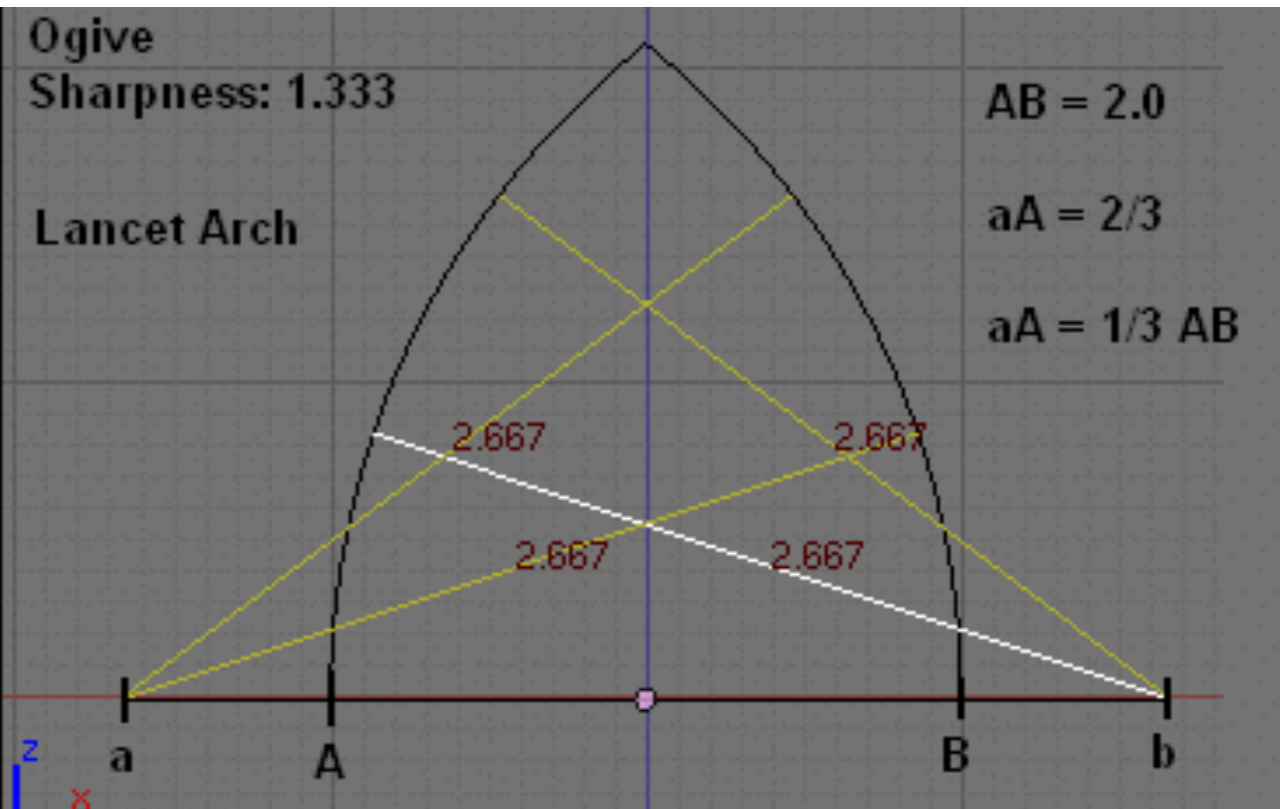
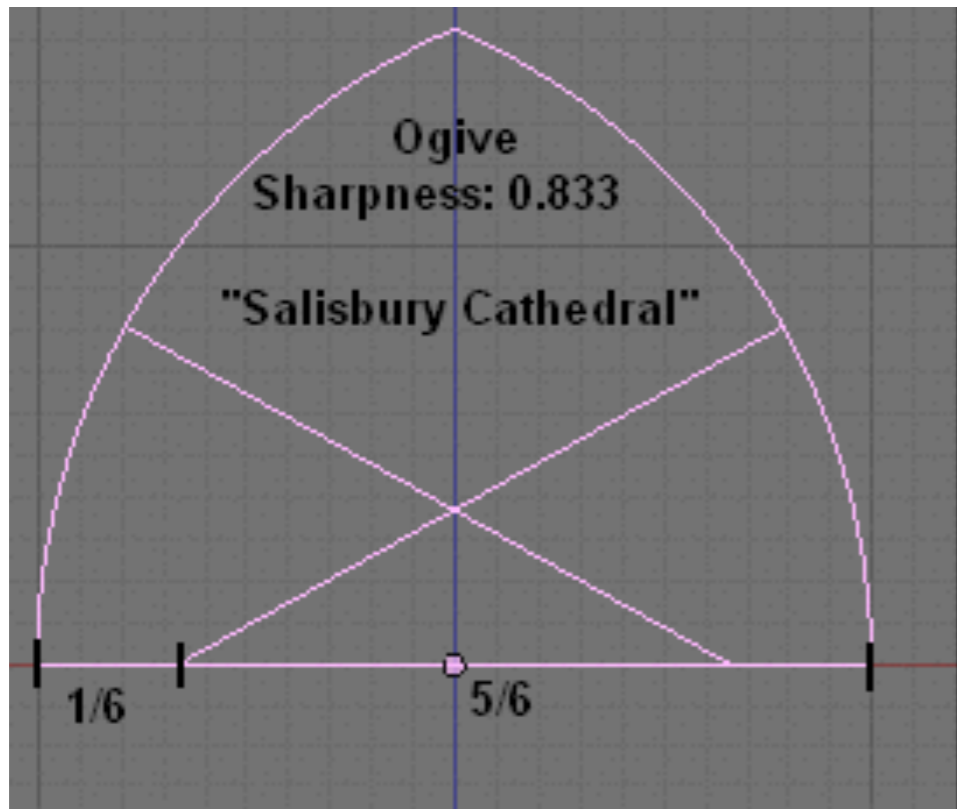


Spring of Arch

OGEE ARCH - TANGENT REVERSE OGIVE



Ogives are mathematical constructs used in the design of projectiles



Ogive Sharpness

Jerusalem

The Jewish People establish Jerusalem

- ¶ Judaism is monotheistic
- ¶ Stories told in the sacred *Torah*
- ¶ God not represented

Under King David (and his son Solomon) the Jews became a dominant power, circa **1000 BCE**

The Jews had been enslaved by *Rameses II* circa 1300 BCE in Egypt - they move back into ***Land of Canaan*** circa 1200 BCE, the area between the Mediterranean Sea and the Jordan River

ARC OF THE CONVENANT

Repository for the Ten Commandments

A mobile sanctuary that was carried from place to place



Land of Canaan (map 1692 by Philip Lea)



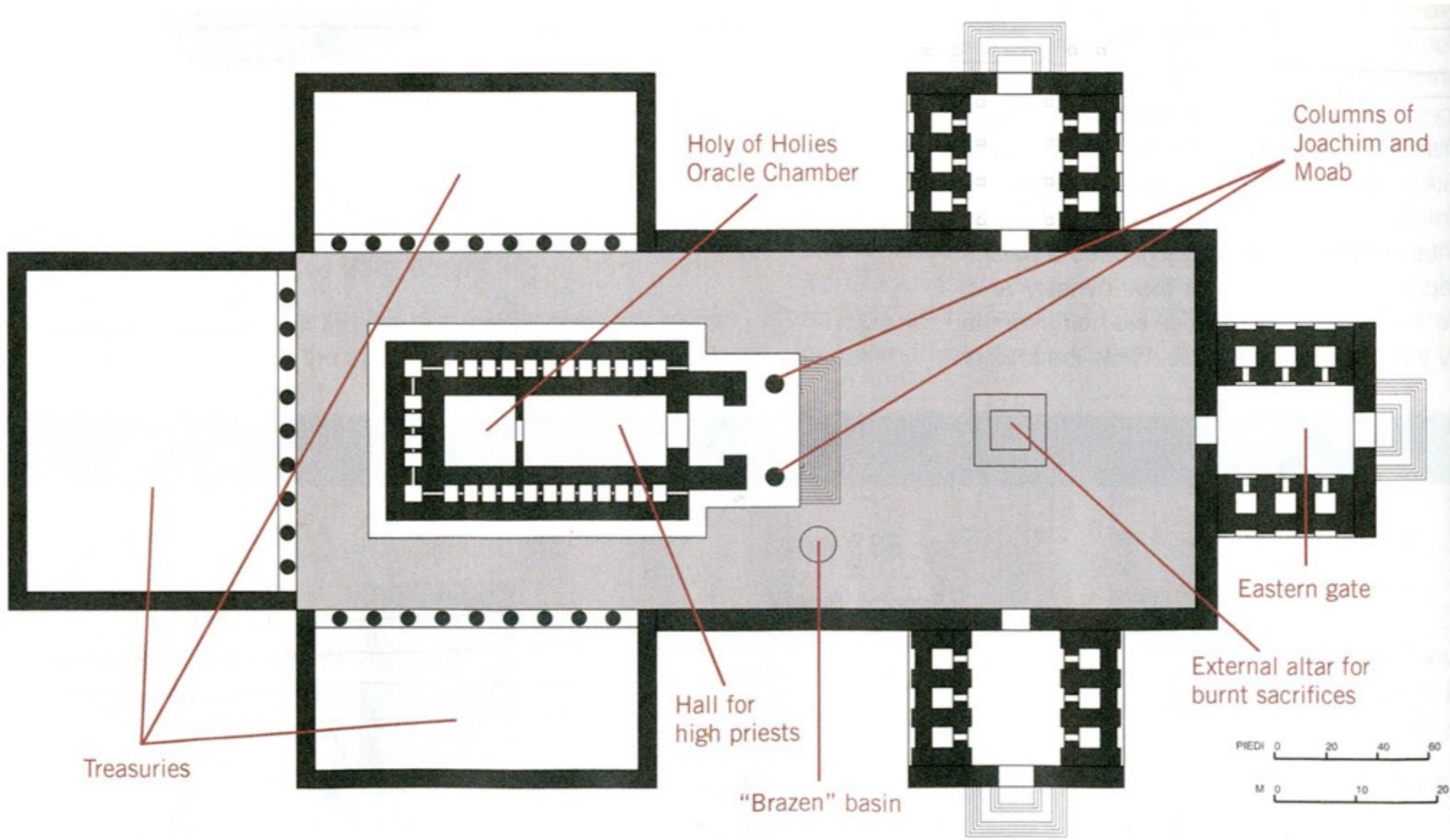
Detail from Lea map

The Jews settle ***Jerusalem*** **1000 BCE** as their capital city and the center of Jewish culture

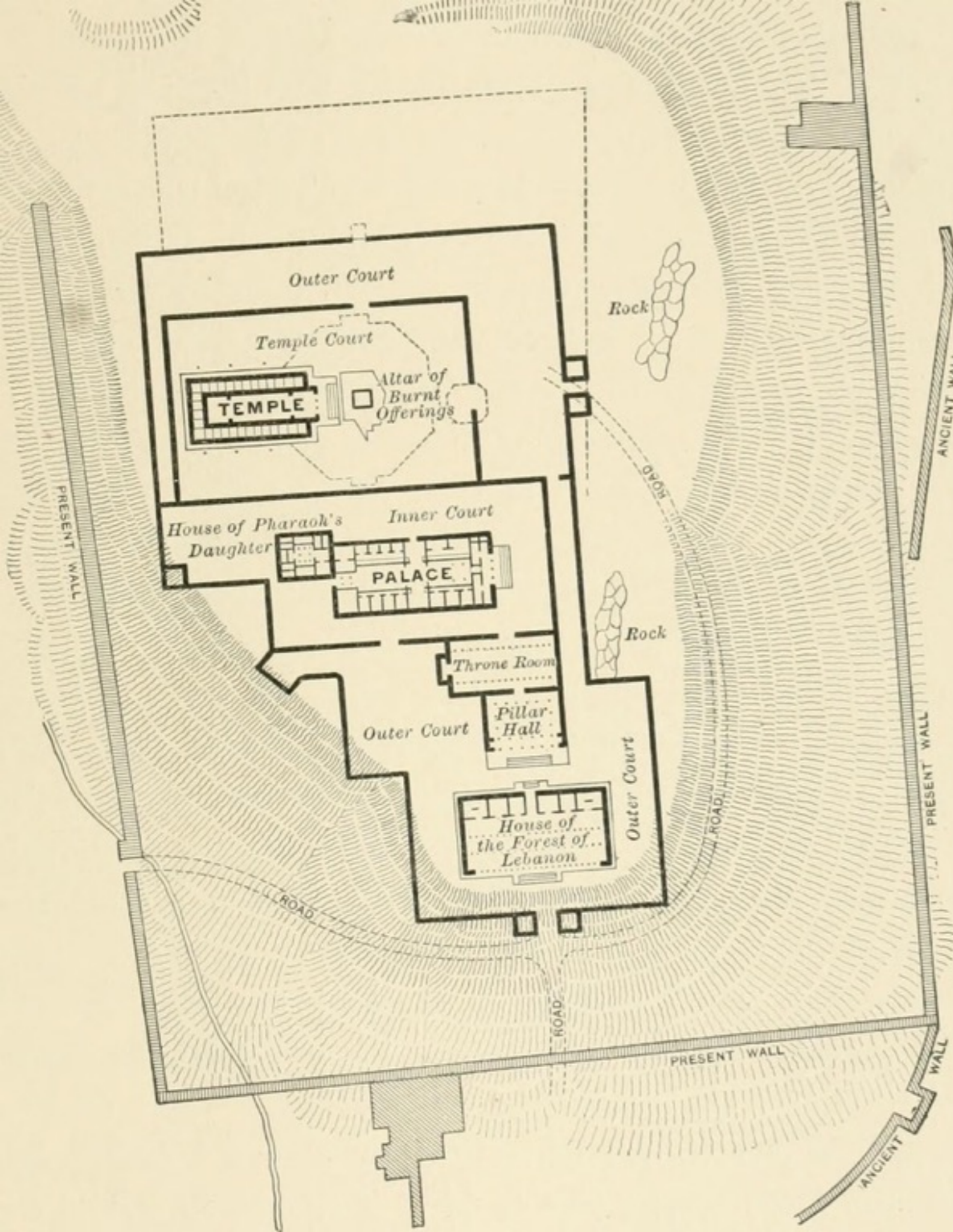
Jerusalem is a walled city on top of an oval-shaped hill called *Mount Moriah* or the *Temple Mount*.

Fortified like a Mycenaean city

Solomon, beginning in **961 BCE** begins to build the ***First Temple*** on Mount Moriah

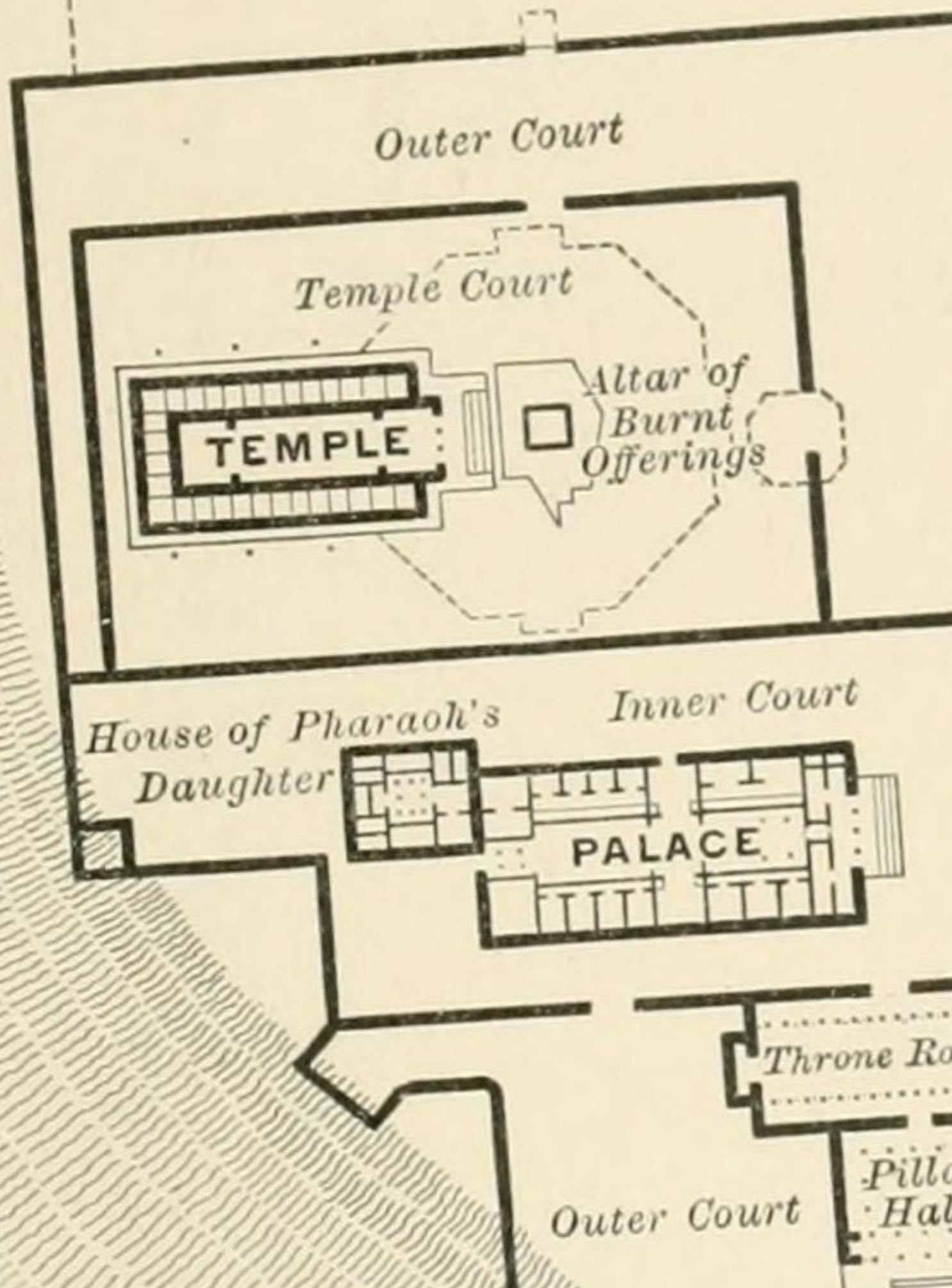


FIRST TEMPLE



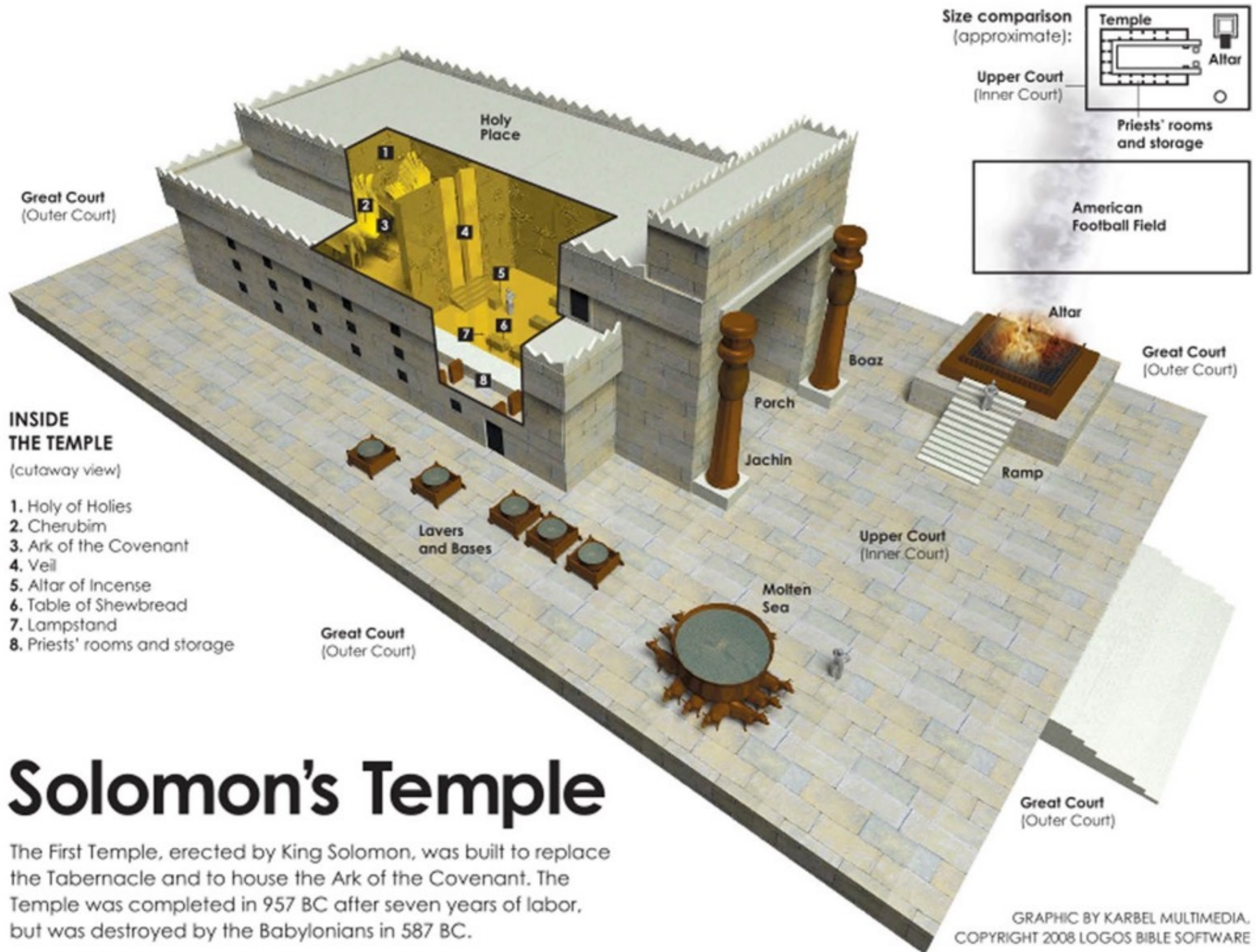
Circa 1900 plan by an archaeologist showing location of the ***First Temple*** on the *Temple Mount* as it was about ***900 BCE***

FIRST TEMPLE
BUILT BY
SOLOMON



Circa 1900 plan by an archaeologist showing location of the **First Temple** on the Temple Mount as it was about **900 BCE**

FIRST TEMPLE
BUILT BY
SOLOMON



Solomon's Temple

The First Temple, erected by King Solomon, was built to replace the Tabernacle and to house the Ark of the Covenant. The Temple was completed in 957 BC after seven years of labor, but was destroyed by the Babylonians in 587 BC.

JERUSALEM'S HOLY GROUND

"The air over Jerusalem is saturated with prayers and dreams," wrote poet Yehuda Amichai—and they gather like a storm over the plateau called Mount Moriah. To Jews this is the Temple Mount, their holiest site, where the Western Wall survives from the Second Temple era. To Christians it is ground that Jesus walked. To Muslims it is the Haram al-Sharif, the Noble

Sanctuary, where the golden Dome of the Rock shelters a scarred outcrop of limestone. The meaning of that rock—linked to Muhammad and his mystical journey to heaven, to Solomon and the First Temple, to David and the Ark of the Covenant, to Abraham and the near sacrifice of his son—is at the heart of what makes this such sacred, and deeply contested, ground.



CA 1000 BCE | SOLOMON'S TEMPLE

At the direction of David, the Bible records, Jewish King David built an altar on or near the site about 1000 BCE. King Solomon, David's son, followed his father's example to build a Temple to the Lord, dedicating it about 960 B.C. It was destroyed in 586 B.C., when King Nebuchadnezzar's general destroyed Jerusalem and exiled the Jews to Babylon. The site of the Temple, probably preserved in the Temple's walls of rubble, surfaced from the historical record.

CA 350 BCE | HEROD'S TEMPLE

With monumental scale, Herod the Great, appointed by Rome as King of Judaea, doubled the size of the Temple Mount. The grand Herodian Temple he dedicated about 20 BCE was a renovation of the Second Temple, built 100 years after the Jews returned from Babylonian exile. Jews brought on the Temple Mount in the week before the revolt, about 70 CE, and again with the Greeks in 135 CE. Jews built on the Temple Mount on the Roman era and created a moat, linking the Temple and surrounding the complex.

A.D. 691 | DOME OF THE ROCK

The original holiness of the Dome of the Rock over about 691 CE, 100 years after the fall of Herod's Temple. The rock under it is believed to be the spot from which Muhammad ascended to heaven during his mystical night journey from Mecca. Muslim of the Second Temple and returned when Muslims took the city from Christian Byzantine rule in 638 and began to shape the complex into Islam at that site. The Noble Sanctuary, the holiest site in Islam.

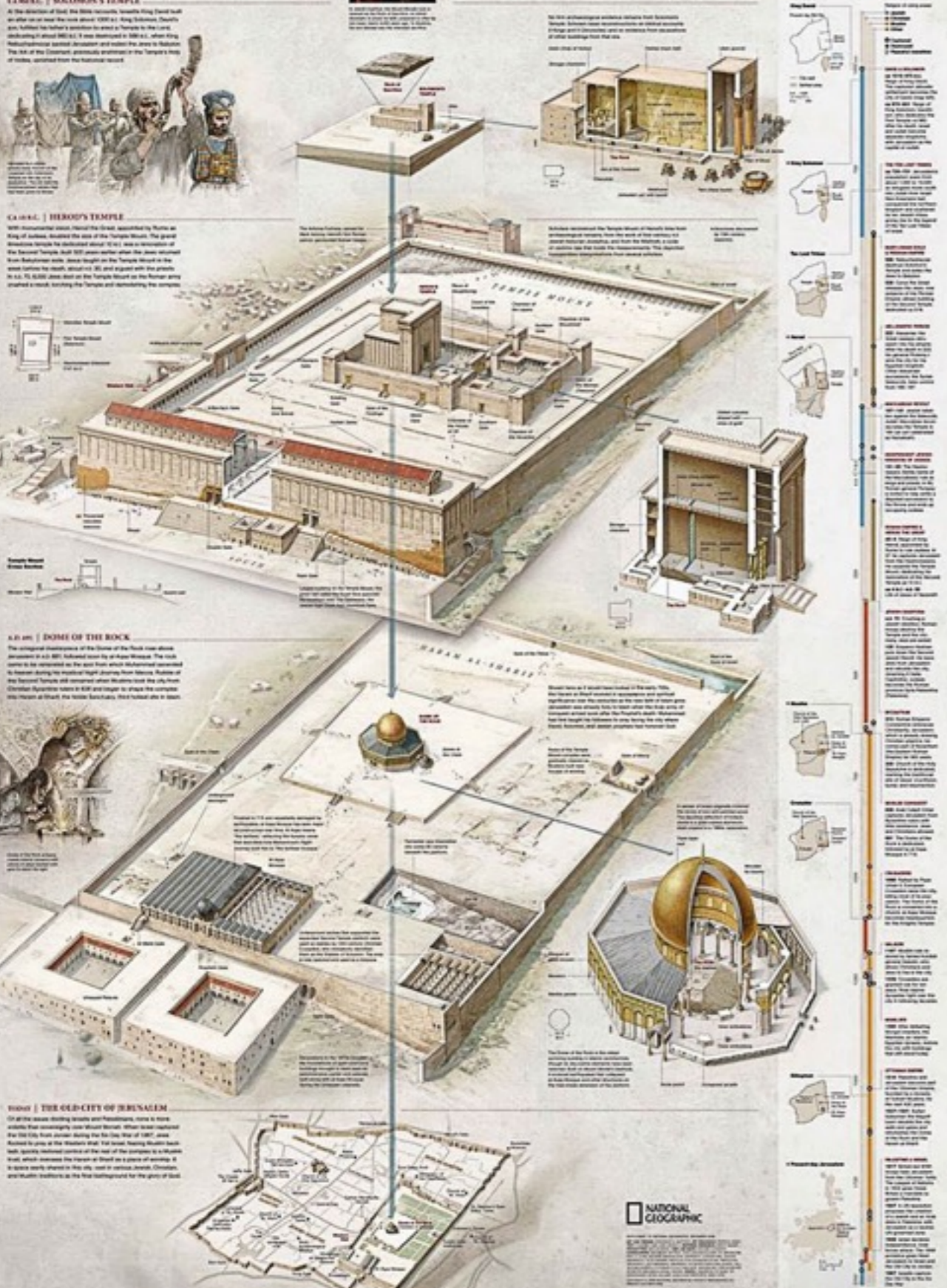
TODAY | THE OLD CITY OF JERUSALEM

Of all the areas dividing Israel and Palestinians, none is more sensitive than Jerusalem, and none more so. After 1948, the city was divided into Jewish and Arab sectors. During the Six-Day War of 1967, Jews returned to parts of the Western Wall. The Israeli Temple Mount Authority took control of the site of the Temple in a dispute that, which includes the Haram al-Sharif as a place of worship. It is a place rarely shared in the city, not in public Jewish, Christian, and Muslim traditions in the first background for the city of God.



THE CITY THROUGH TIME

History and faith have always shaped the story of Jerusalem. Shown here is a series of maps of the city at different points in time, from the early days of the city to the present. The maps show the city's growth and the location of the Temple Mount and the Dome of the Rock. The maps are color-coded to show the different periods of the city's history.



National Geographic
diagram showing:

(top) First Temple
950 BCE

(middle) Second Temple v2
20 BCE

(bottom) Dome of the Rock
690 CE

By **720** (after the death of Solomon)
Israel breaks apart and half the population
again is dragged into slavery - this time
to *Sargon's* city of ***Dur-Sharrukin***

In **586** Nebuchadnezzar (New Babylon)
attacks Jerusalem hauls off 20,000 people
as slaves and destroys the ***First Temple***

Jewish diaspora begins... and
Arc of the Covenant disappears

Second Temple (v 1.0) >> built quickly in *535 BCE*,
then rebuilt by *King Herod* about ***20 BCE (v 2.0)***
on top of the ***Temple Mount***

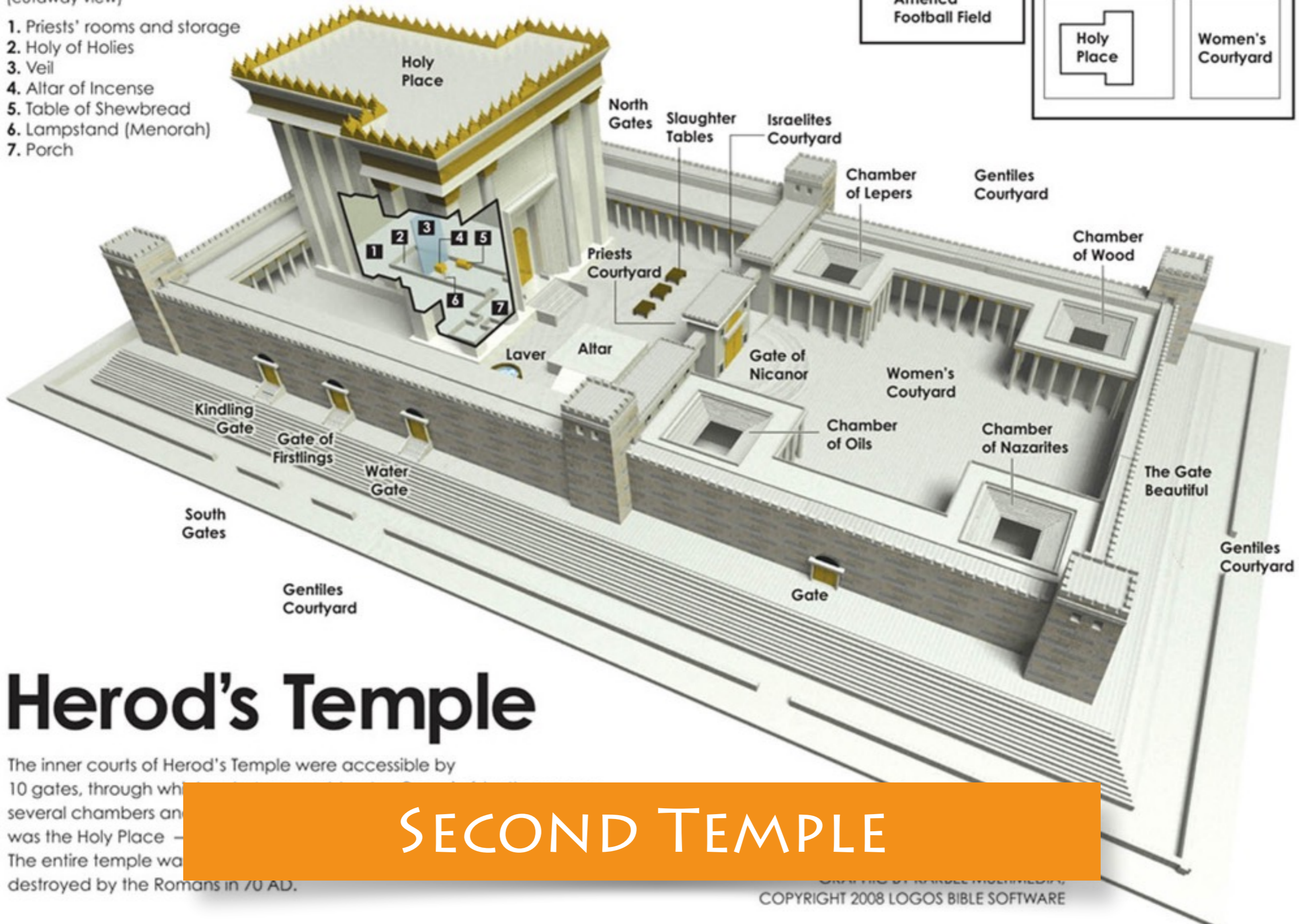
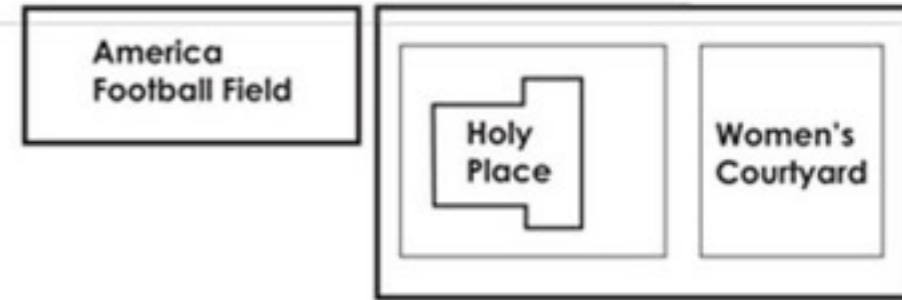
Second Temple (v 2.0) >> destroyed by Romans
in 70 CE (Emperor Titus) and what
remains today is the ***Western Wall of the
Temple Mount*** in Jerusalem

INSIDE THE HOLY PLACE

(cutaway view)

1. Priests' rooms and storage
2. Holy of Holies
3. Veil
4. Altar of Incense
5. Table of Shewbread
6. Lampstand (Menorah)
7. Porch

Size comparison (approximate):



Herod's Temple

The inner courts of Herod's Temple were accessible by 10 gates, through which several chambers and... was the Holy Place - The entire temple was destroyed by the Romans in 70 AD.

SECOND TEMPLE



SECOND TEMPLE v2.0

Reconstruction of *Second Temple* v 2.0 (*Herod's Temple*)
(this is the fancy version he built about 20 BCE)



SECOND TEMPLE v2.0

Reconstruction of ***Second Temple*** v 2.0 (***Herod's Temple***)
(this is the fancy version he built about 20 BCE)



Jerusalem and Second Temple destroyed by Romans in 70 CE

David Roberts painting (1850) 53" x 77"



Aerial photo of the Temple Mount in Jerusalem
(Built much later in **690 CE** during the rise of Islam)



Western Wall of the Temple Mount



Western Wall of the Temple Mount





G. Bauerfreund

Jerusalem



Ashlar limestone construction of the Western Wall of the Temple Mount from the ***Herodian*** period

The rise and spread of
Islamic Architecture

MOSQUES AND MINARETS

Mohammed
570 CE - 632 CE

Islam begins about
610 CE

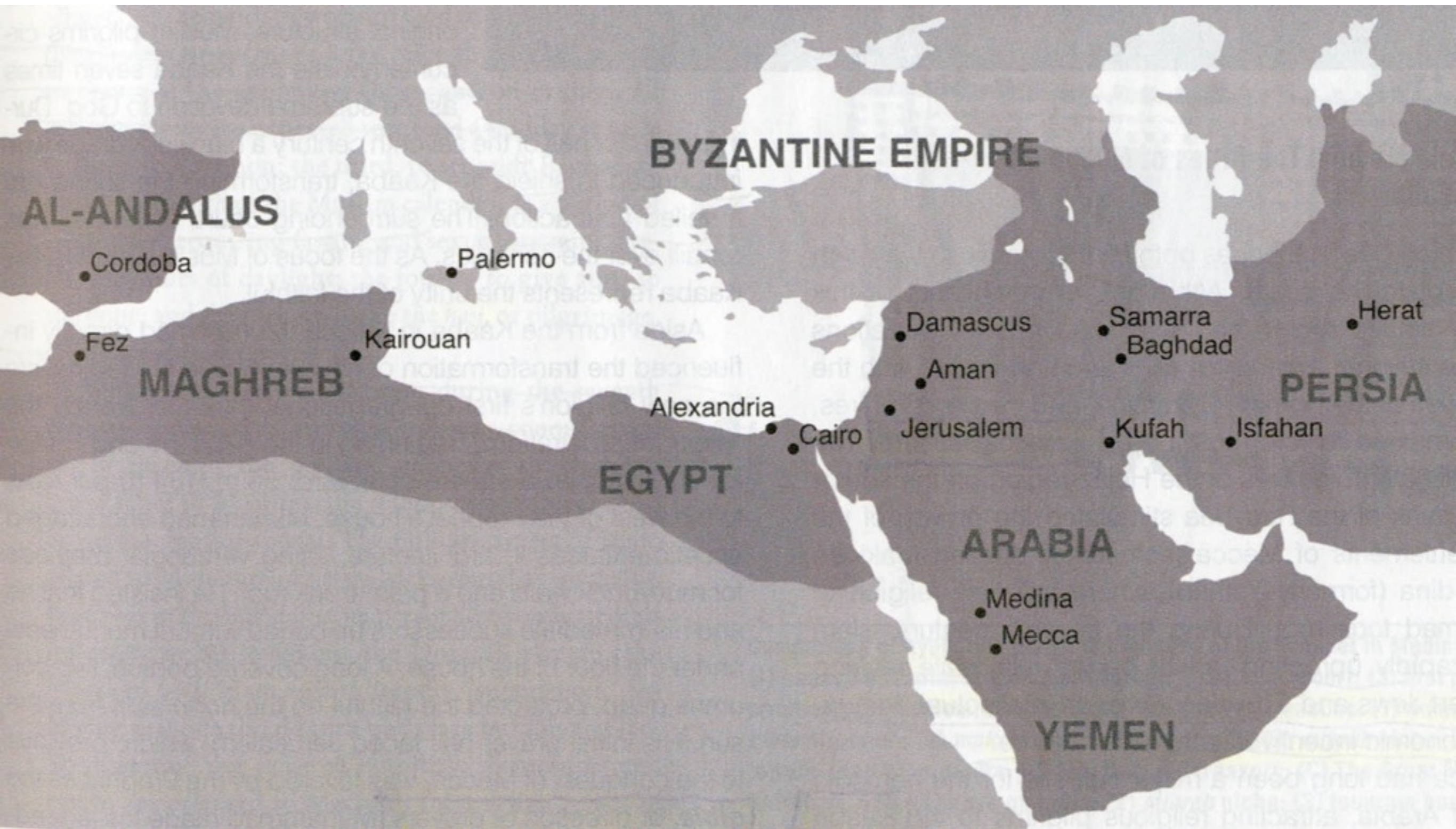
Islam spread as an urban phenomenon based on military and political power

Islam literally means *submission* - as in *submission to god*.

Imam is the ***Holy Man***

Within 100 years of the death of Mohammed, Islamic rulers had conquered a vast territory amounting to the southern portion of the Roman Empire as well as the Persian Empire

Political pressure to convert: Jews and Christians were taxed heavily in an effort to convert people to Islam



BYZANTINE EMPIRE

AL-ANDALUS

Cordoba

Palermo

Fez

Kairouan

MAGHREB

Alexandria

Cairo

EGYPT

Damascus

Aman

Jerusalem

ARABIA

Medina

Mecca

YEMEN

Samarra

Baghdad

Kufah

Isfahan

PERSIA

Herat

Mecca the most holy place in Islam,
(established about **610 CE**)

The **Kaaba** is a freestanding black cubic building in Mecca's Sacred Mosque (36' x 42' x 43' high).

It is the **holiest of the holies**, where Muslim pilgrims come to on a **hajj** (pilgrimage)

Henceforth, all **mosques** are oriented in a direction toward Mecca - this direction is called the **qibla**

THE KAABA IN MECCA



The Muslim city emerged with these architectural features:

HERAT = neighborhoods

MOSQUE = prayer hall

MINARET = tower for the call to prayer

CARAVANSERAI = motel for caravans

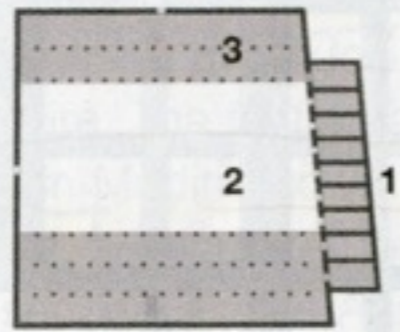
Modest, somewhat simple architectural
demands for the *mosque*

basilica form

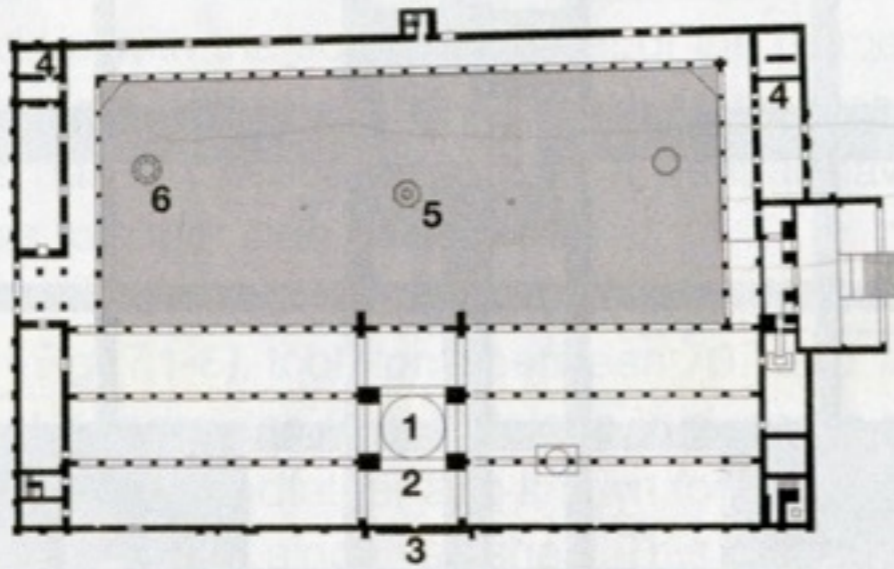
transverse basilica form

hypostyle hall form

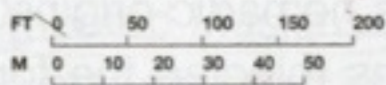
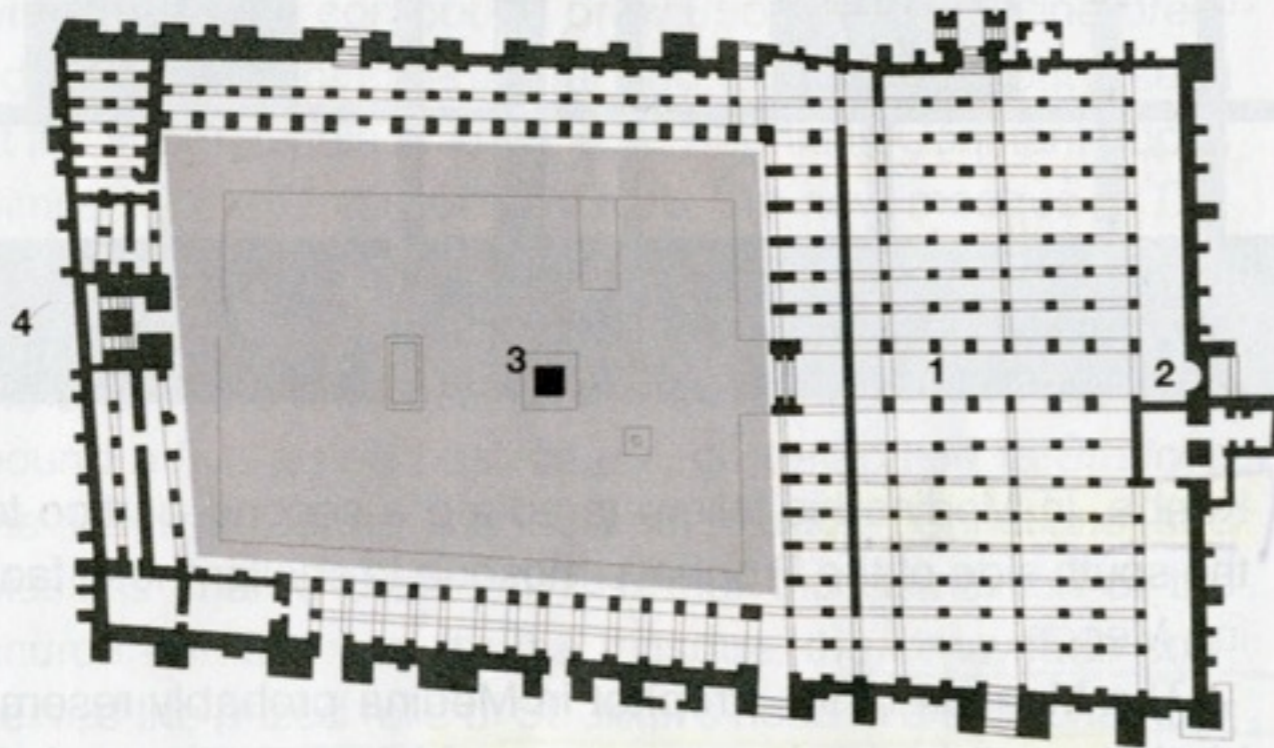
A



B



C

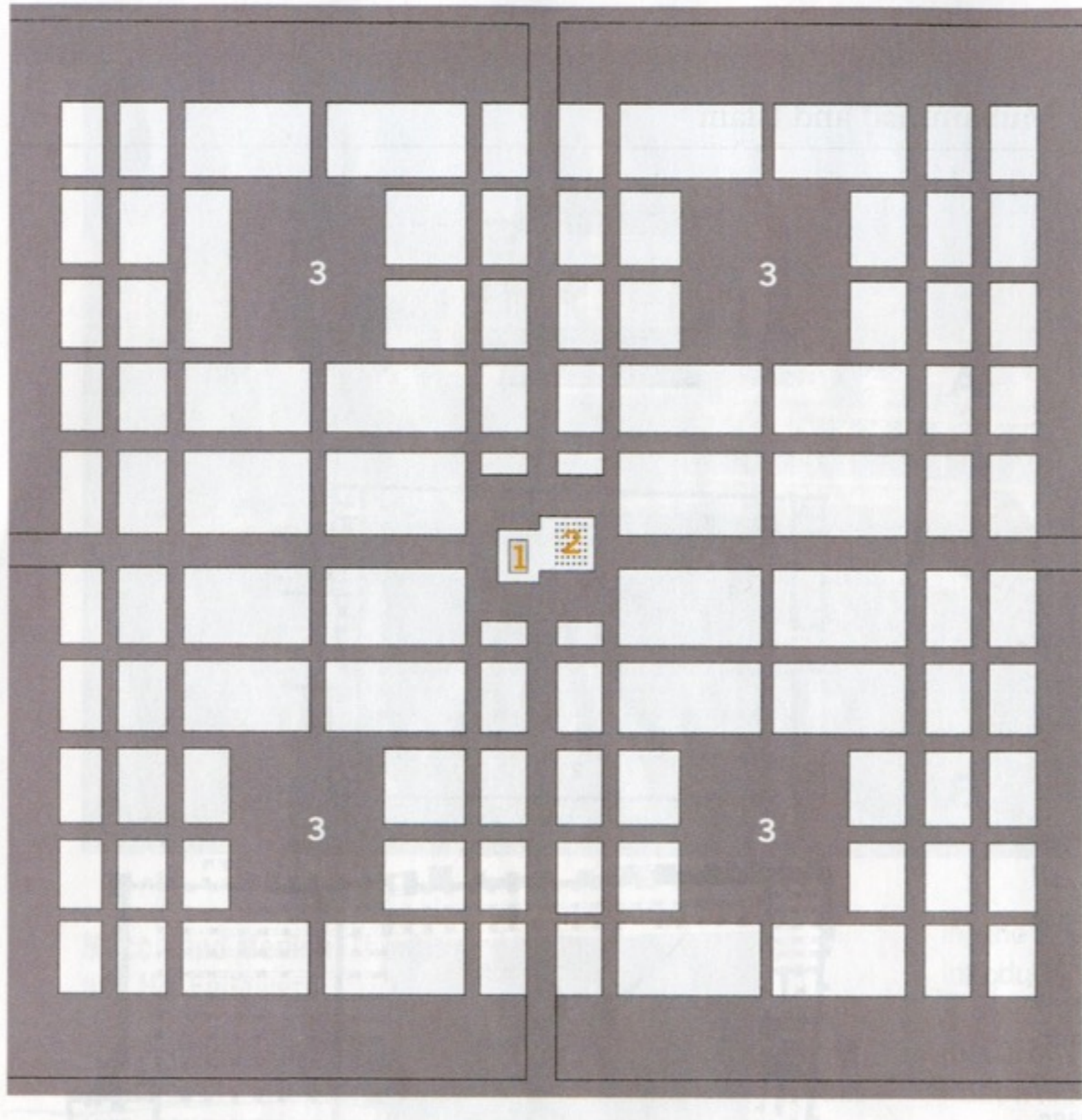


Kufah, circa 638 CE (modern-day Iraq)

Takes on a grid-like design with
a *hypostyle mosque* at the center

The *mosque* and *palace* are in a large
open court called a ***sahn***

Each quadrant of the city has as its
center a ***maydan*** or commercial
market square



Kufah (Iraq)

638 CE

Four quarters, each centered around a ***maydan***

The central open court called the ***sahn*** contains the mosque and palace

Umayyad Caliphate comes to power **661 CE**
establishing Damascus as their capital

Islam transforms into a *dynastic, hereditary, militaristic*
empire, reaching all the way to modern-day Spain

First leader of Ummayyads is *Abd al-Malik*

Abd al-Malik built a pilgrimage (***hajj***) site on the Temple Mount in *Jerusalem* called the ***Dome of the Rock in 690 CE***

Abd al-Malik's son *al-Walid* enlarged the mosque at Medina adding an architectural niche called a ***mihrab***, which is oriented toward the direction of Mecca (the direction toward Mecca is called the ***qibla***)

al-Walid adds a second mosque on the Temple Mount in Jerusalem



Temple Mount showing Dome of the Rock on the site of the Second Temple of Herod



Dome of the Rock
690 CE

Great Mosque of Damascus built by
Umayyad Caliphate (dynasty) about **714 CE**



Great Mosque of Damascus



Great Mosque of Damascus



horseshoe arch



ablaq



**pointed arch
a.k.a.
ogive arch**

iwan deep arch



Architectural elements of these mosques:

ogive arch - pointed arch - secant ogive

horseshoe arch - arch that turns back inward

ablaq - use of multi-colored masonry (striped)

mihrab - the niche oriented toward the quibla

quibla - direction toward Mecca

iwan - a deep vault, usually at mosque entrance

minaret - tower near entrance for calling to prayer

maydan - the Islamic marketplace

Umayyad Empire succeeded by Abbasid Empire

Abbasids killed all the ***Umayyads*** and took
over about **750 CE**

Abbasids built ***round city*** of ***Baghdad*** **762 CE**



BAGHDAD

TIGRIS



Autonomous *Aghlabid*
dynasty

Built this Mosque in
836 CE in *Tunisia*

Possibly modeled on
Lighthouse of Alexandria



Mosque of Ibn Tulun (**880 CE**) in Cairo
(*Built by a de facto independent **Abbassid** governor*)

end