

AHST 2331-001 (20045)

Understanding Art

Dr. Charissa N. Terranova

Tuesdays and Thursdays 11:30-12:45

ATC 1.102

Tuesday February 7

Mosque of Cordoba: Spolia and Repetition of Forms



Mosque of Córdoba, 987 CE

The Great Mosque of Cordoba was the most important public project of Abd al Rahman I the last surviving Umayyad. Other builders/architects: Abd al Rahman III, al-Hakam III, Hernan Ruiz the Elder, Hernan Ruiz the Younger, Diego de Ochoa Praves, Hernan Ruiz III, and Juan de Ochoa Praves. Cordoba's period of greatest glory began in the 8th century after the Moorish conquest, when some 300 mosques and innumerable palaces and public buildings were built to rival the splendours of Constantinople, Damascus and Baghdad. In the 13th century, under Ferdinand III, the Saint, Cordoba's Great Mosque was turned into a cathedral and new defensive structures, particularly the Alcázar de los Reyes Cristianos and the Torre Fortaleza de la Calahorra, were erected.

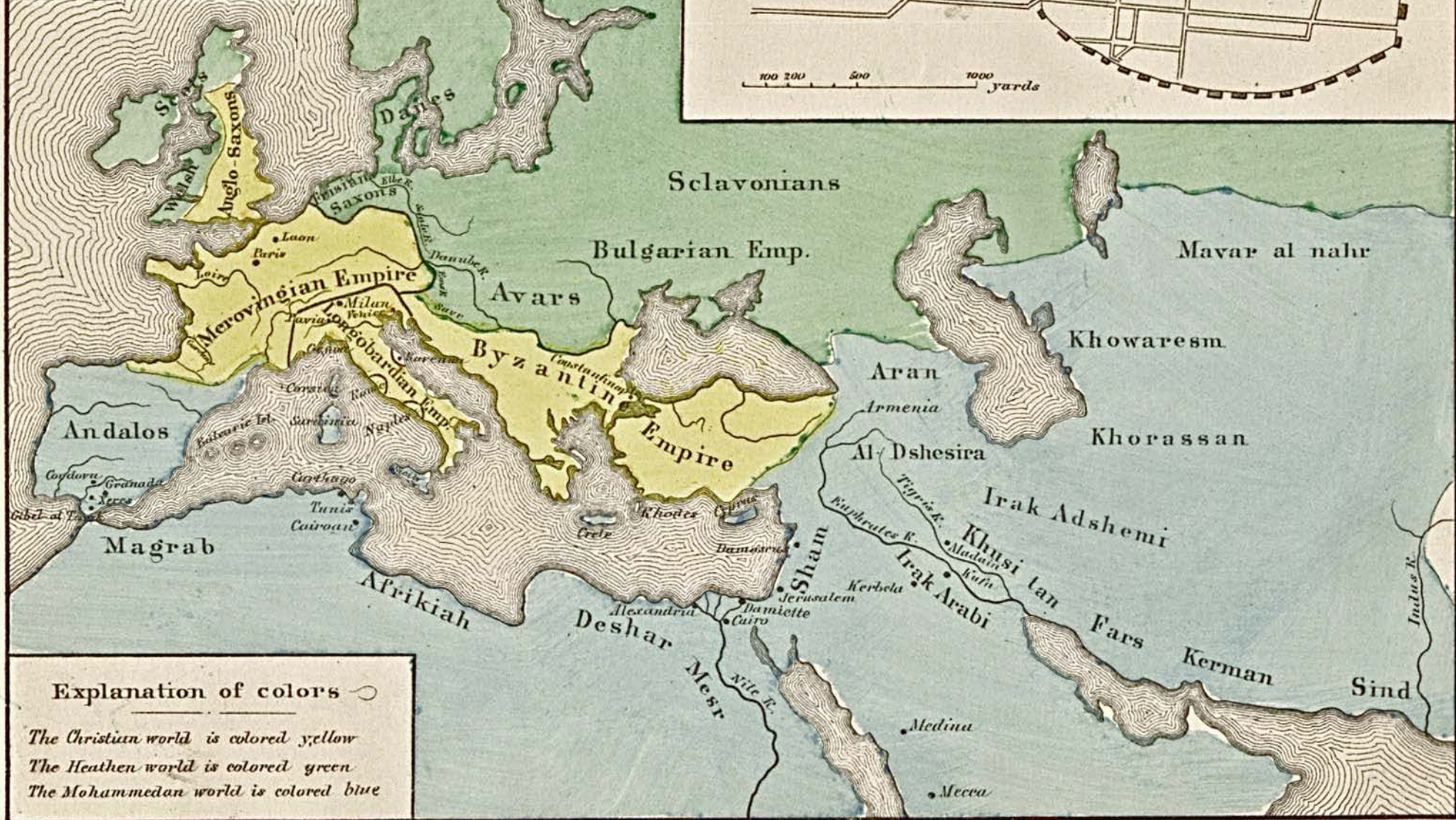
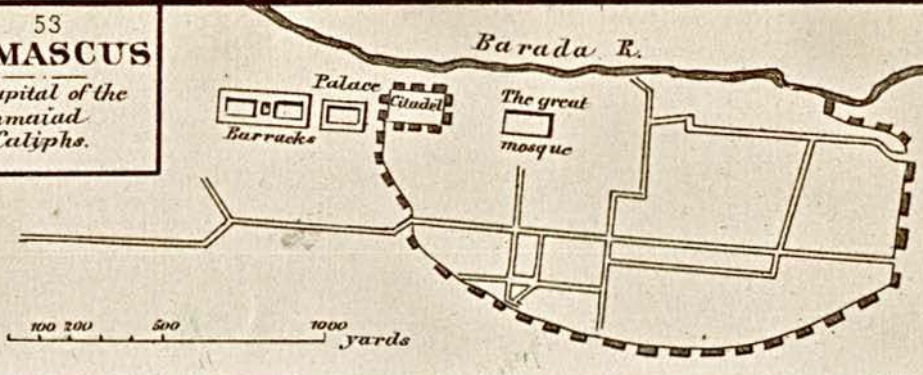
Roman Empire ca. A.D. 180





52
 Eighth progressive map
ARABIC ASCENDENCY
 under Caliph Walid I.
 100 200 300 Engl. Ms.

53
DAMASCUS
 The capital of the
 Ommaïad
 Caliphs.



Explanation of colors

- The Christian world is colored yellow
- The Heathen world is colored green
- The Mohammedan world is colored blue

"The Eighth Progressive Map: Arabic Ascendency"; From "An Historical Atlas Containing a Chronological Series of One Hundred and Four Maps, at Successive Periods, from the Dawn of History to the Present Day." by Robert H. Labberton. Sixth Edition. 1884.

This map illustrates the immense territorial expansion of the Islamic Empire that took place under Al-Walid I, who ruled from 705-715 C.E. during the Umayyad Caliphate. This period is often considered to be the "Arab Golden Age" and this assertion is certainly true from the standpoint of geographical extent; even the Ottoman Empire did not equal the Umayyad Caliphate in size.

Thus, we are given a view of the geo-political power dynamics of the early eighth century. With Europe hedged in by the heathen "other" to the North, and the world of the "Mohammedan" in every other direction, this map solidifies the notion of a Christian Europe versus the Islamic East. In this way, this map anticipates both the Crusades and the subsequent rise of the Ottomans, which in large part define the religious framework of Europe's Middle Ages.*

*https://www.brown.edu/Departments/Joukowski_Institute/courses/ancientneareast/9193.html

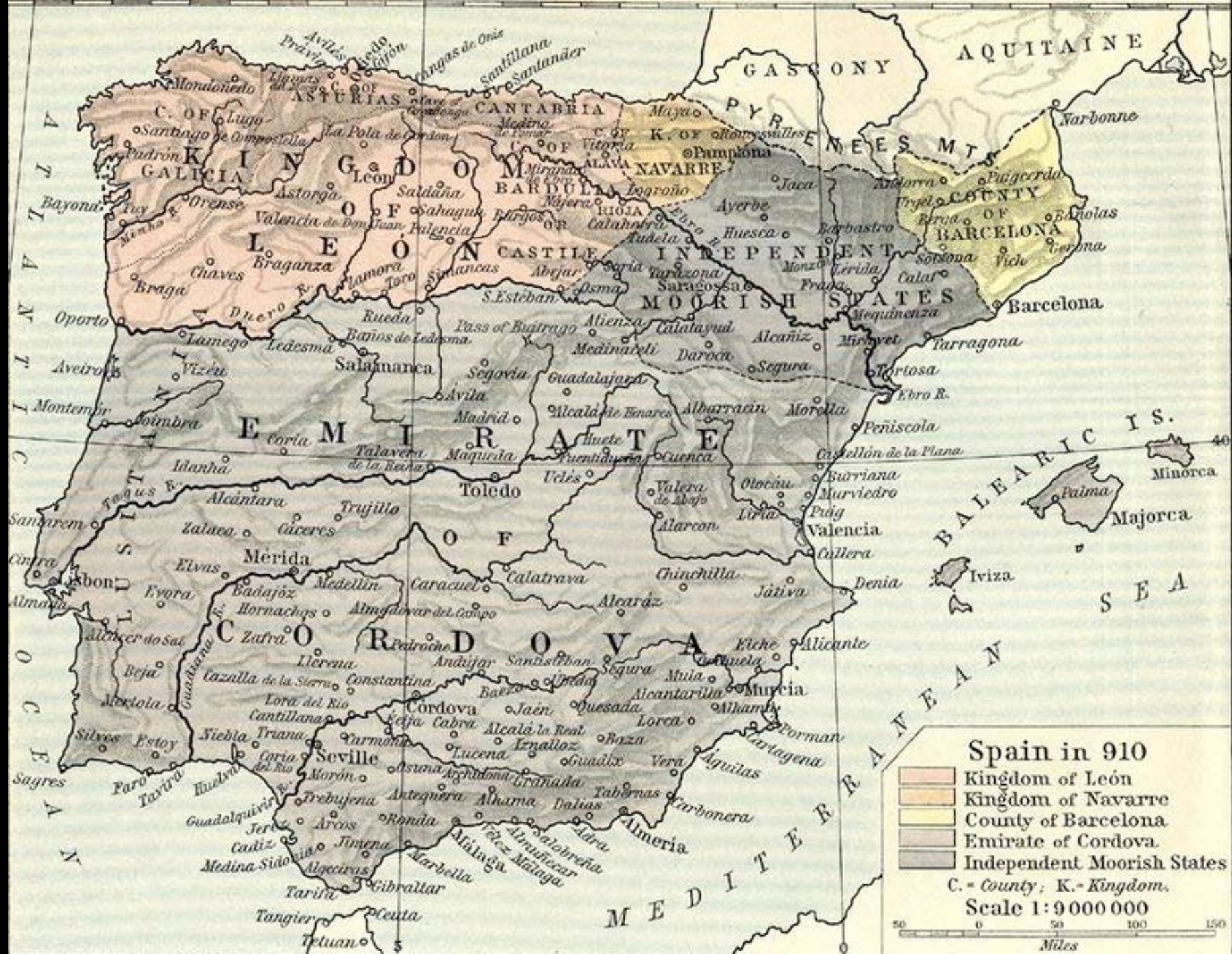
58 **EUROPE**
 during the 12th Century
 The Age of the Crusades.

The possessions of the Plantagenets in 1160 are light blue
The German Empire is colored blue
The Christian states in the East are also colored blue
The Byzantine Empire is colored yellow
The Western Caliphate is colored green
The Eastern Caliphate is light green



59
The Christian States in the East in 1142



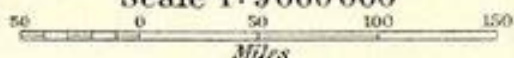


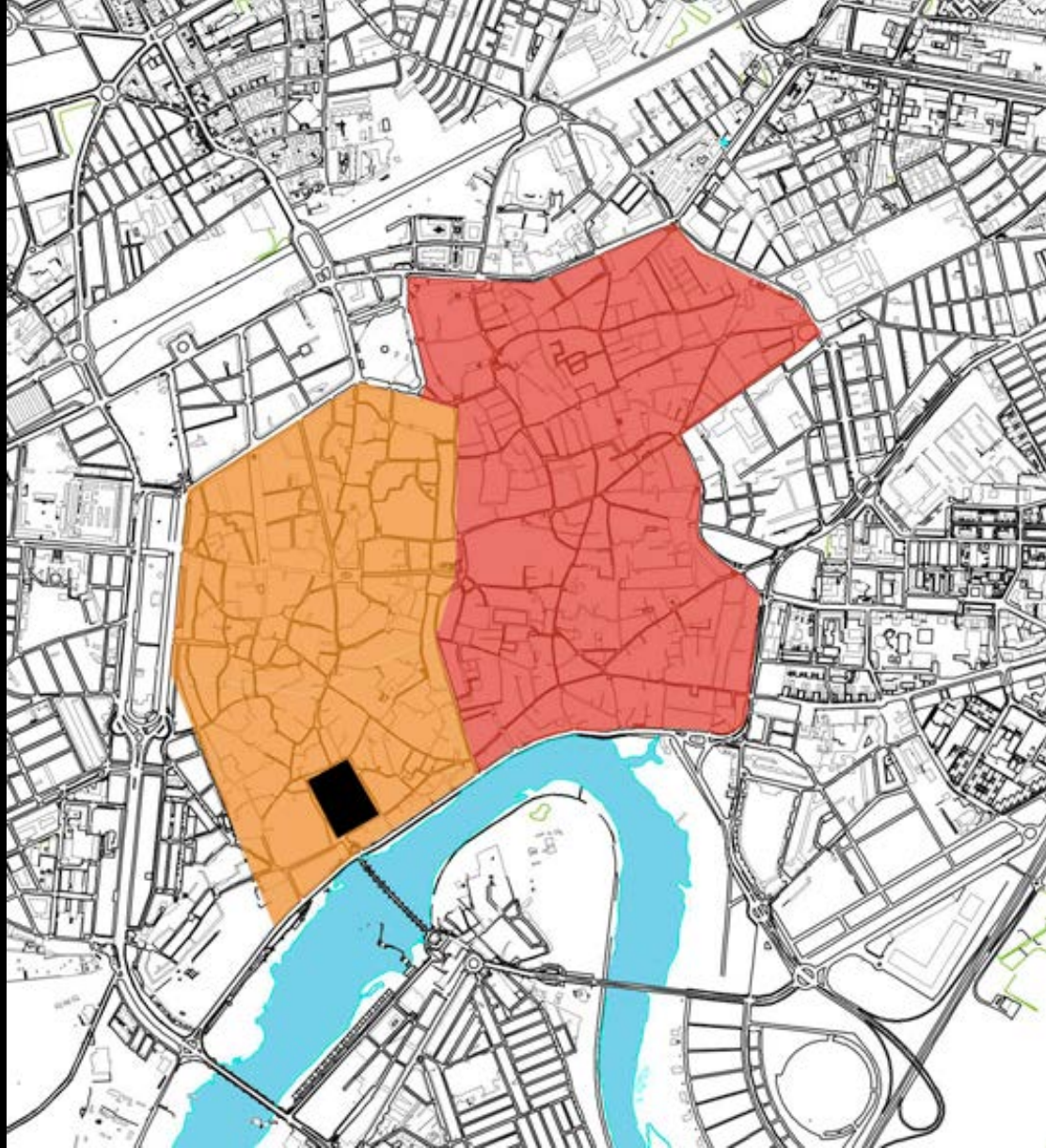
Spain in 910

- Kingdom of León
- Kingdom of Navarre
- County of Barcelona
- Emirate of Cordova
- Independent Moorish States

C. = County; K. = Kingdom.

Scale 1:9 000 000





Orange: limits of roman city
Red: Muslim enlargements
Black: Great Mosque



Cordoba in Middle Ages



- Palimpsest
- Adaptive Reuse
- The tides of deep time
- The sublimity of deep time
- Romanticism
- Spolia
- Accretive development

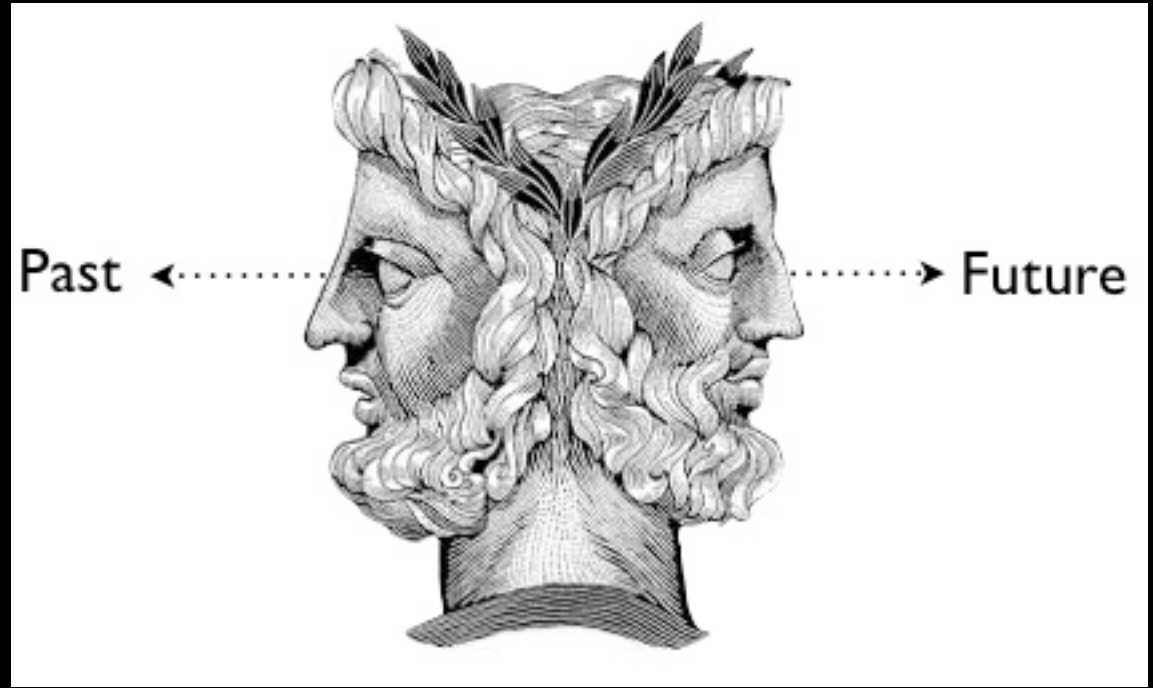


THE GUADALQUIVIR RIVER ON THE ANCIENT ROMAN BRIDGE: Cordoba is an ancient dwelling place, settled long before the Romans built their monumental city.



MASSIVE GATEWAY TO HONOR THE ROMAN GOD JANUS: The Romans built their temple to Janus, the god of beginnings and endings and doorways, near this ancient doorway opposite the bridge on the mighty Guadalquivir.



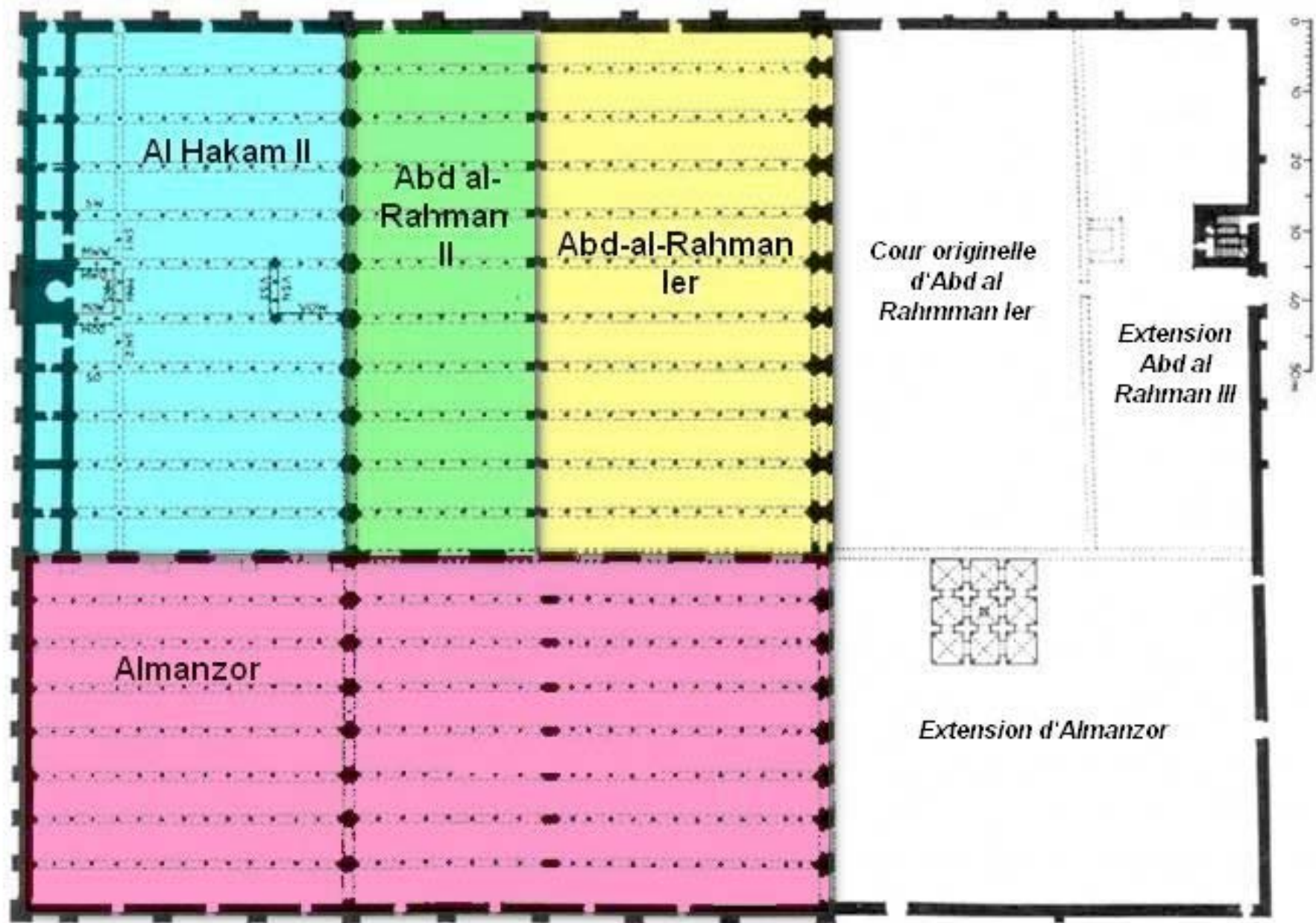


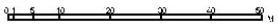
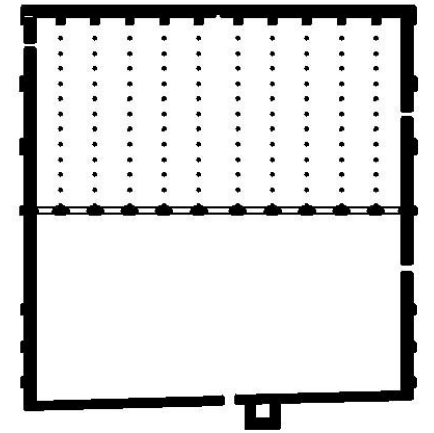
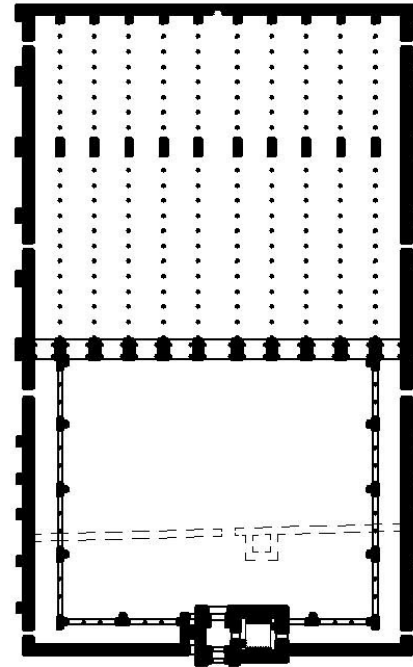
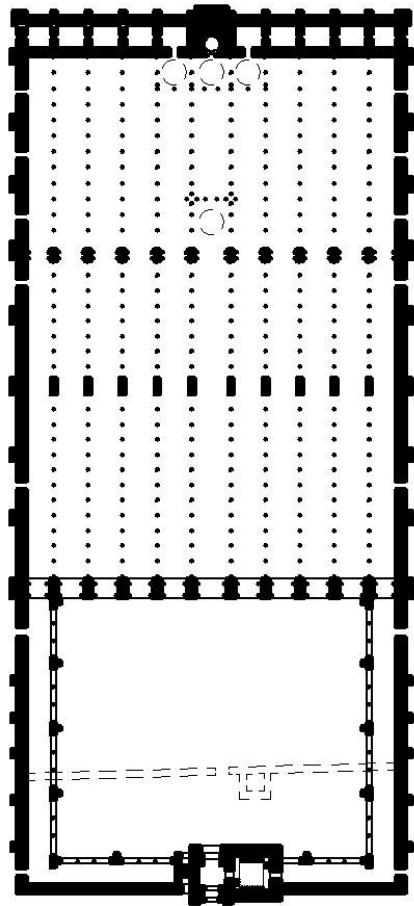
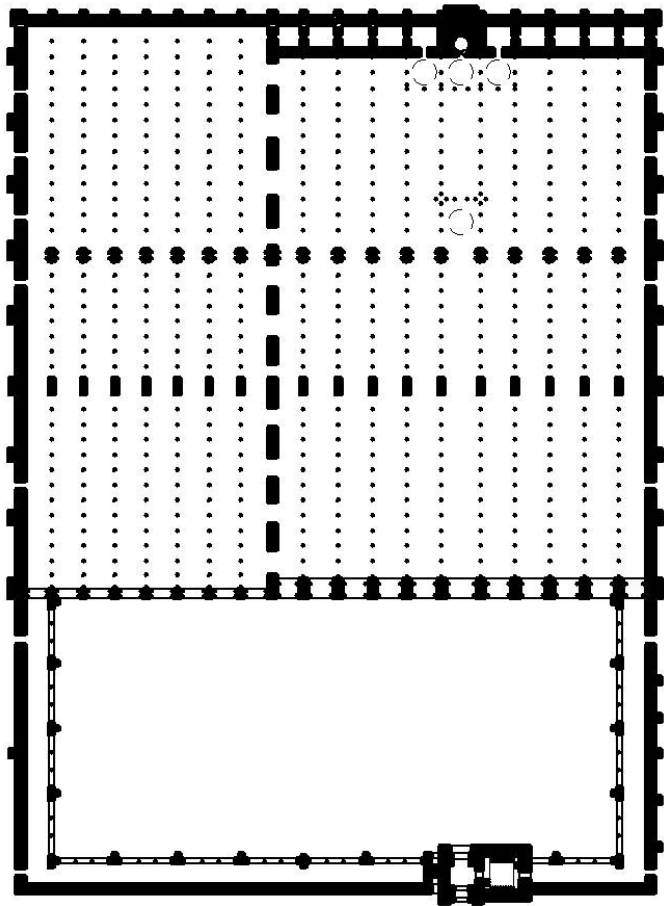
In ancient Roman religion and mythology, Janus is the god of beginnings and transitions, thence also of gates, doors, doorways, endings and time. He is usually a two-faced god since he looks to the future and the past. The Romans dedicated the month of January to Janus. His most apparent remnant in modern culture is his namesake, the month of January.

The Basilica of Saint Vincent the Martyr was the original seed that was later transformed into the Umayyad Mosque, as the Moors built the original Alhama Mosque over its foundations. It is estimated that the church was built in the mid-6th century and subsequently became the main place of worship for Christians in the city. After the Saracen invasion of Cordova, Muslims needed a place to pray and worship, so they came to an agreement with the local Christians to share the temple. It was decided that they would respect the sanctity of the original church while, in return, the Catholic congregation would pay a certain amount in tributes. Towards the end of the reign of Abd ar-Rahman I, the need to extend the Alhama Mosque became apparent due to an increase in size of the Omeyan city of Cordova, which led to the need of a more spacious temple in order to satisfy the spiritual needs of the Muslim community.

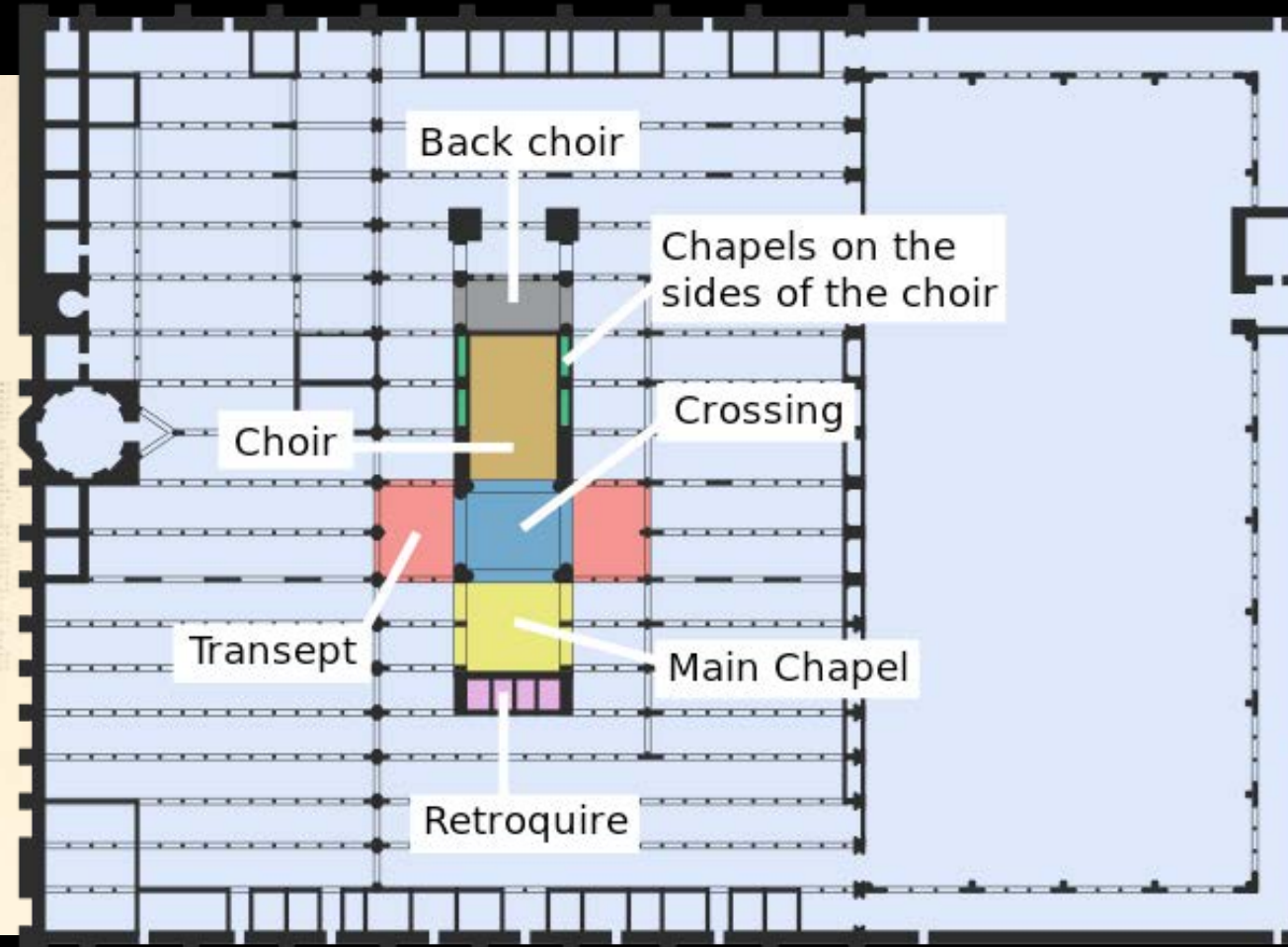
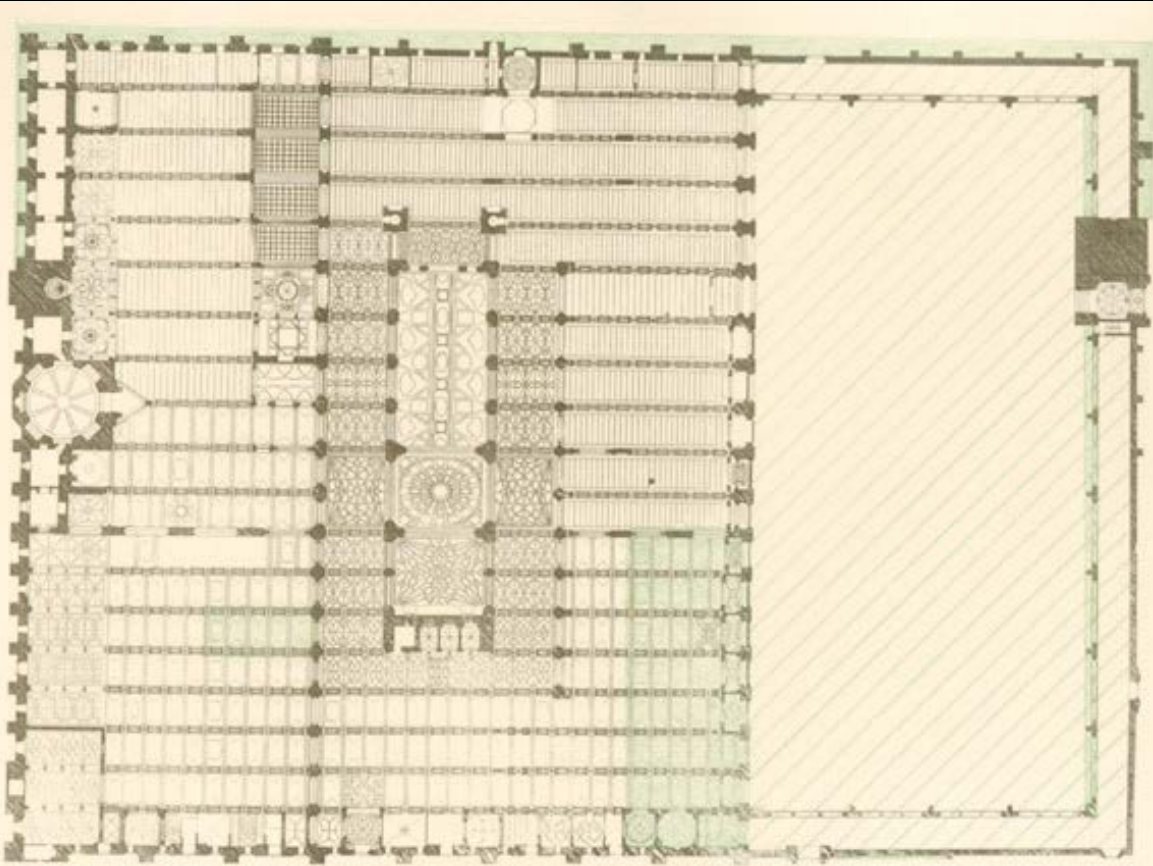


Visigothic pieces from San Vicente in the Great Mosque of Córdoba

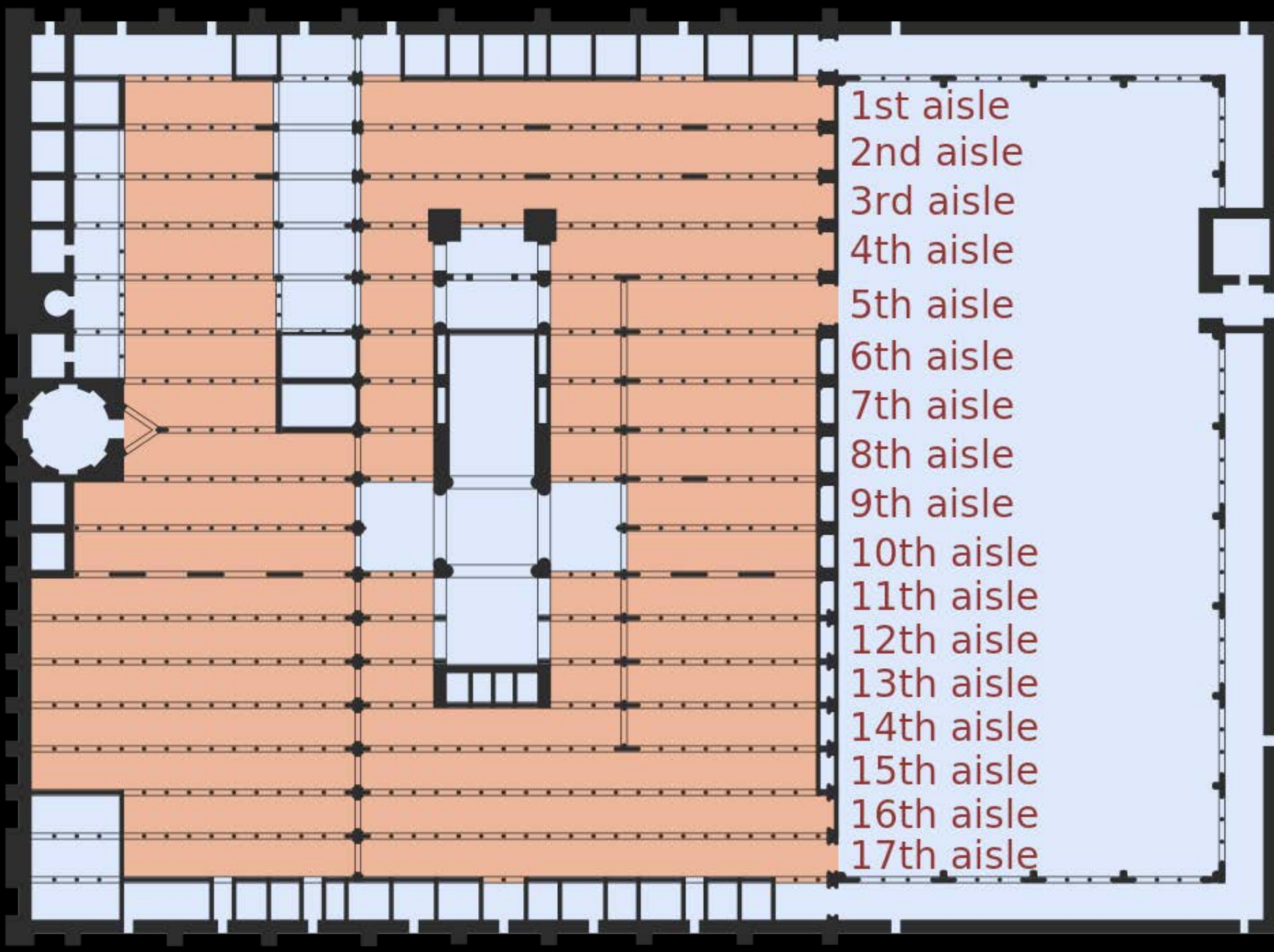




Floor plans showing four phases of development



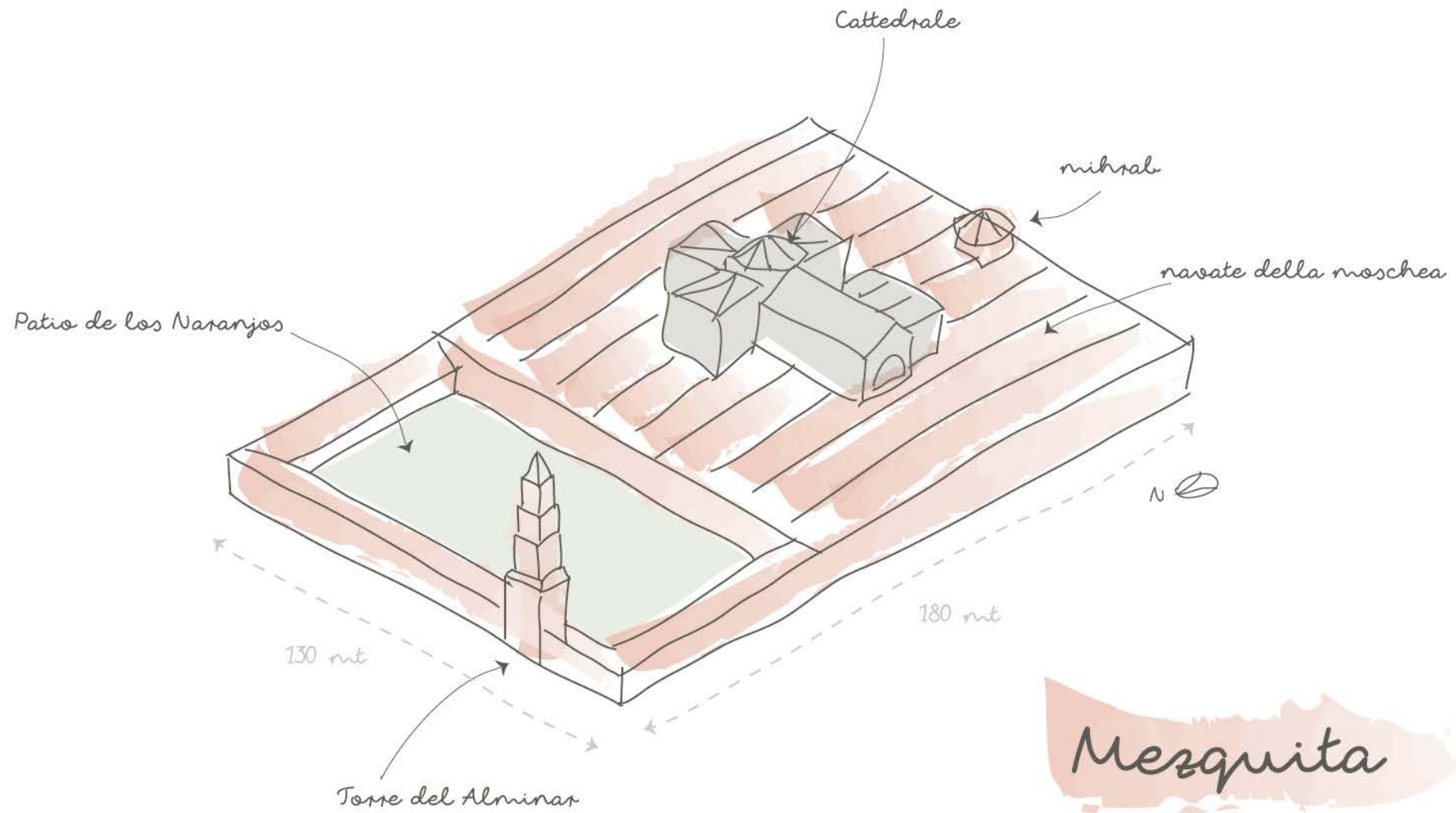
In 1236, Córdoba was conquered by King Ferdinand III of Castile, and the mosque was converted into a Catholic church in its center. The kings who followed added further Christian features, such as King Henry II rebuilding the chapel in the 14th century. The minaret of the mosque was also converted to the bell tower of the cathedral. The most significant alteration was the building of a Renaissance cathedral nave in the middle of the expansive structure. The insertion was constructed by permission of Charles V, king of Castile and Aragon.



- 1st aisle
- 2nd aisle
- 3rd aisle
- 4th aisle
- 5th aisle
- 6th aisle
- 7th aisle
- 8th aisle
- 9th aisle
- 10th aisle
- 11th aisle
- 12th aisle
- 13th aisle
- 14th aisle
- 15th aisle
- 16th aisle
- 17th aisle

Hypostyle hall
of the Mosque-
Cathedral of
Córdoba, Spain.

Hypostyle hall:
The **hypostyle**
hall was a large
room with
columns.



Mezquita



Hypostyle Prayer Hall

Islamic Architecture

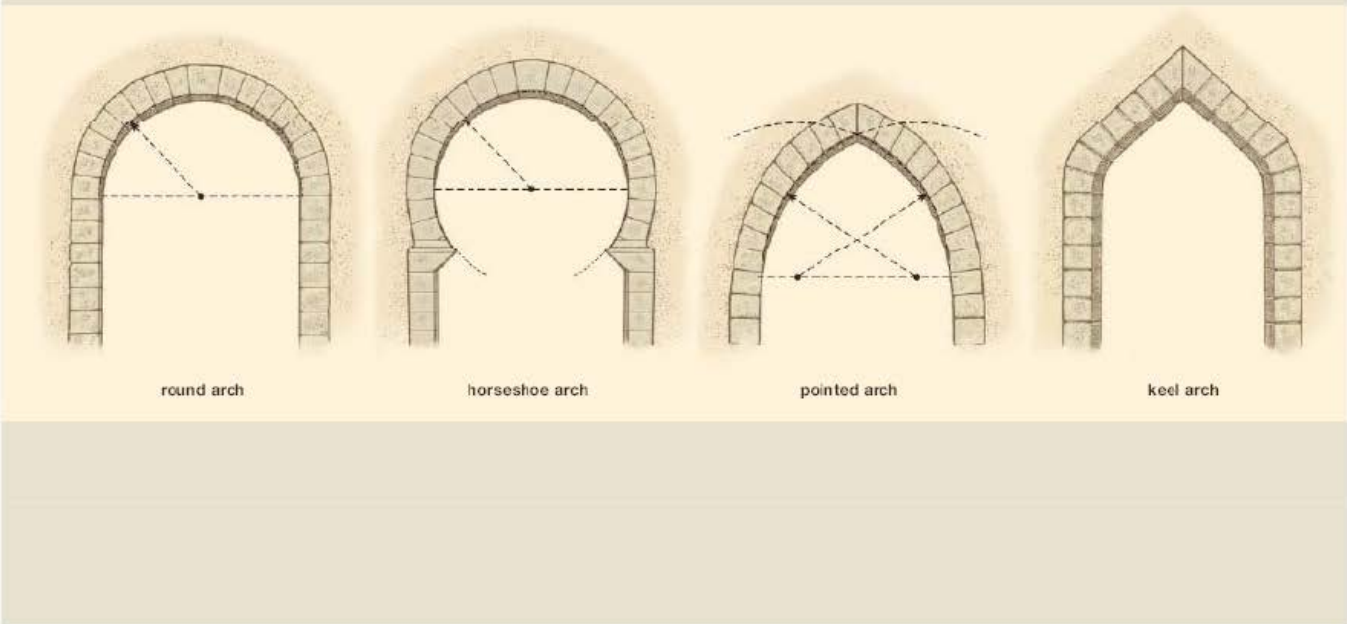
Islamic builders explored structure in innovative ways, using a variety of different arch types.

The earliest is the simple semicircular arch, inherited from earlier cultures. It has a single center point that is level with the points from which the arch springs.

The horseshoe arch is a second type, which became the prevalent arch form in the Maghreb. The center point of this kind of arch is above the level of the arch's springing point, so that it pinches inward above the capital.

The pointed arch, introduced after the beginning of Islam, has two (sometimes four) center points, the points generating different circles that overlap.

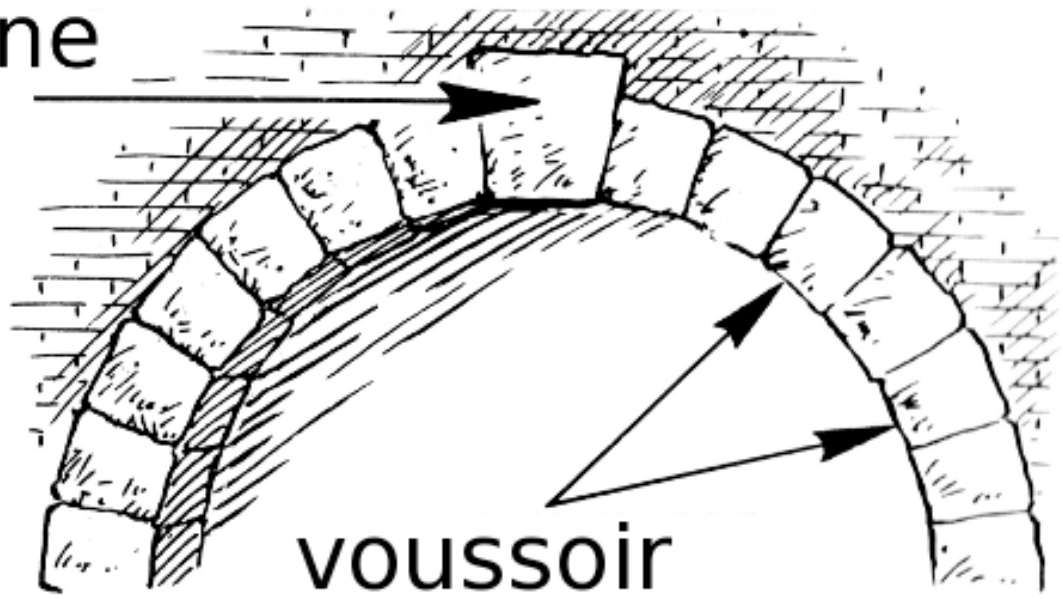
A keel arch has flat sides, and slopes where other arches are curved. It culminates at a pointed apex.



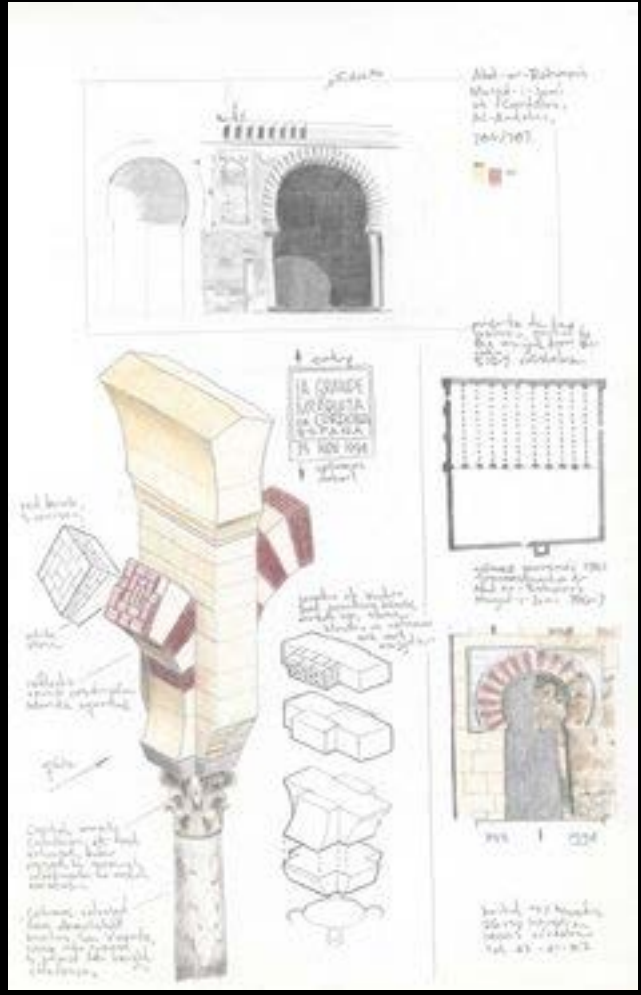
Arcades in Mosque of Córdoba

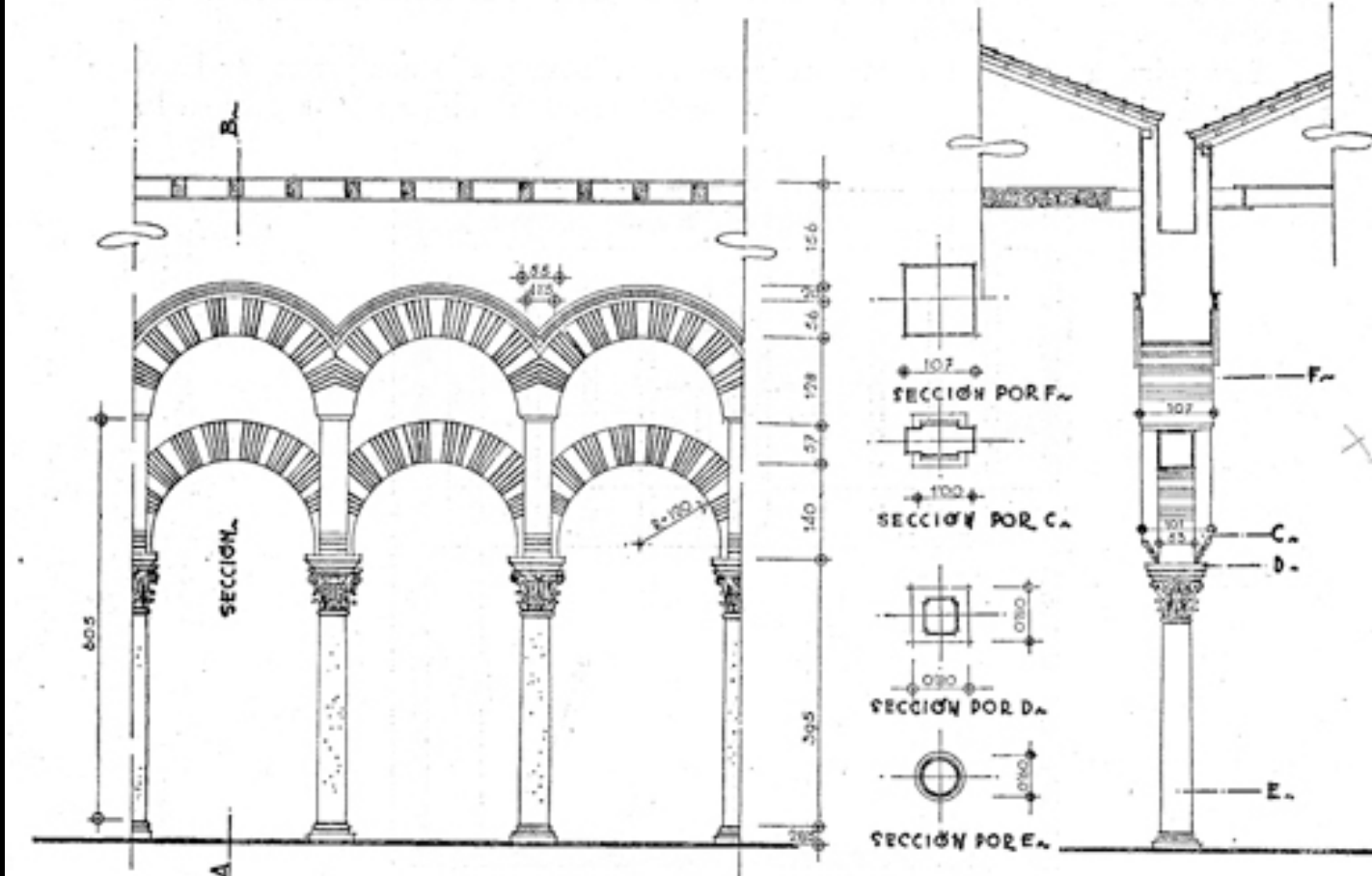
At left, the upper arch is semicircular, but the bottom is a horseshoe, following Spanish-Visigoth tradition, probably late Roman, like the alternating two colored stone blocks and brick voussoirs. Pillar and corbels load onto the cornice, with no Roman architectural moldings, which transmit their weight to capital and shaft, which uses buried basis as foundation.

keystone



voussoir



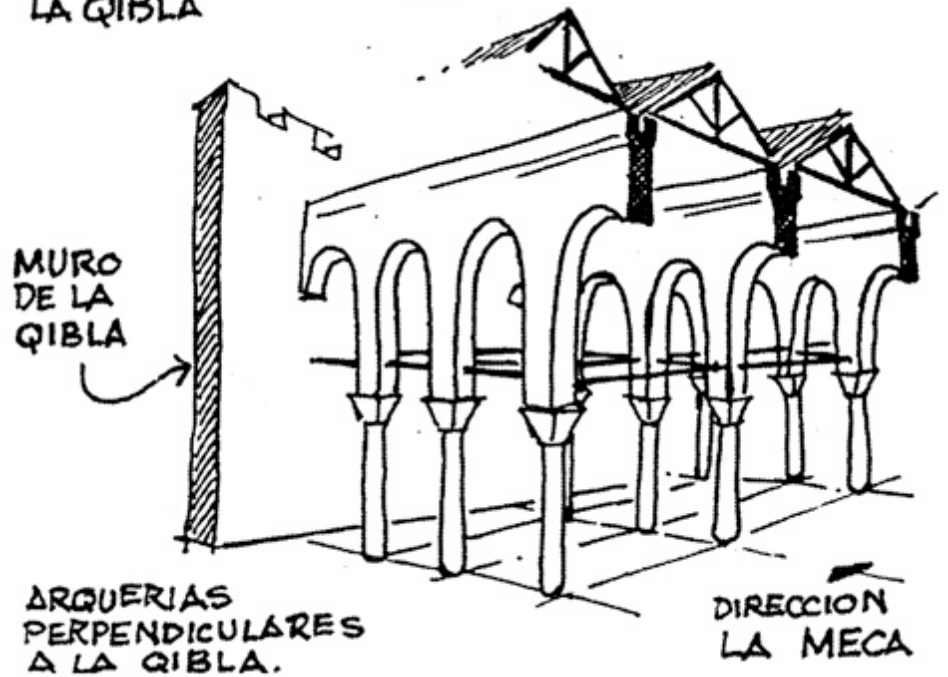
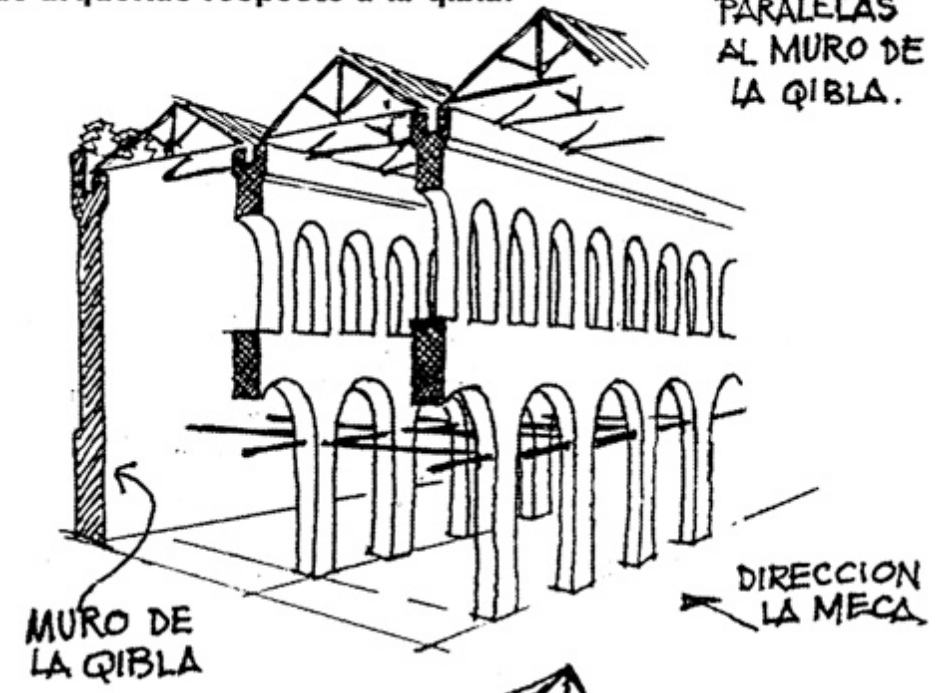


Above: Elevation and section of arcades in Mosque of Mezquita de Córdoba

The walls in the mosque have double arcades. This way height can be increased without breaking proportions. The Cordoba arcades are directly inspired by the Milagros Aqueduct in Mérida, an ancient Roman aquaduct. From its ruins columns and capitals were taken **[SPOLIA]** as basis and inspiration for the successive enlargements. In this context (the reuse of materials and types), the Mosque is understood as a system composed of wall-and-aqueduct that run perpendicular to the qibla and are responsible for the spatial experience. The only perceptible direction would then be perpendicular to qibla.

La Mezquita. Formas en que se orientan las arquerías respecto a la qibla.

ARQUERIAS PARALELAS AL MURO DE LA QIBLA.





Approximating the
spirituality of
infinity
through
architecture

INTERIOR VIEW OF THE MOSQUE AT CORDOVA.

Zero was invented independently by the Babylonians, Mayans and Indians (although some researchers say the Indian number system was influenced by the Babylonians) some 4,000 to 5,000 years ago. Over the next centuries, the concept of zero caught on in China and the Middle East. By 773 CE, zero reached Baghdad where it became part of the Arabic number system, which is based upon the Indian system.

A Persian mathematician, Muhammed ibn-Musa al-Khwarizmi, suggested that a little circle should be used in calculations if no number appeared in the tens place. The Arabs called this circle "sifr," or "empty." Zero was crucial to al-Khwarizmi, who used it to invent algebra in the ninth century. Al-Khwarizmi also developed quick methods for multiplying and dividing numbers, which are known as algorithms — a corruption of his name.



Muhammad ibn Musa al-Khwarizmi [780-850]

Left: Khwarizmi statute in Amir Kabir University, Tehran, Iran

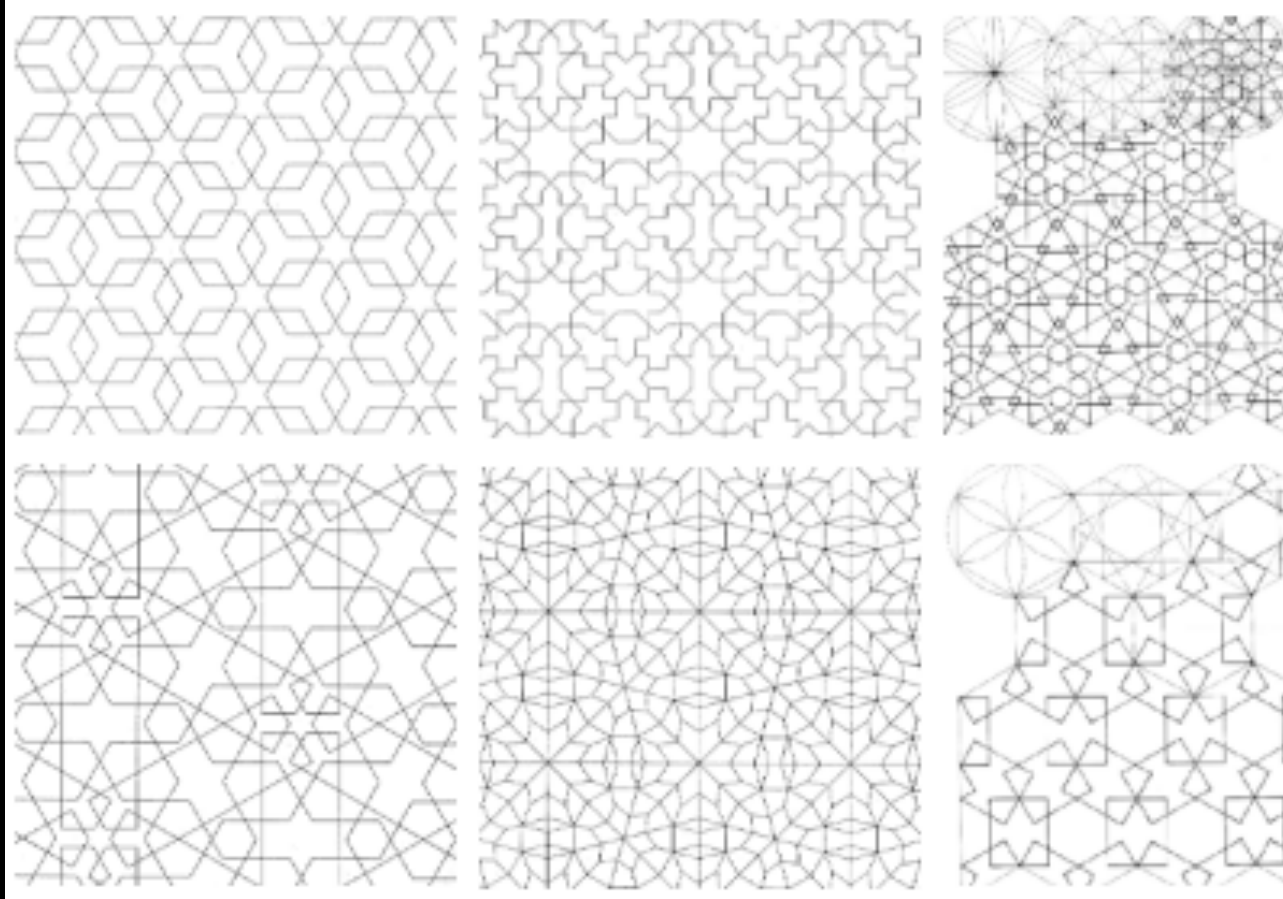
Algebra doesn't have one single origin point -- it developed over time and in multiple places, with many mathematicians contributing. One of those contributors was an 8th-century scholar from Baghdad named Muhammad ibn Musa al-Khwarizmi.

Etymology of "algebra"

late Middle English: from Italian, Spanish, and medieval Latin, from Arabic *al-jabr* 'the reunion of broken parts,' 'bone setting,' from *jabara* 'reunite, restore.' The original sense, 'the surgical treatment of fractures,' probably came via Spanish, in which it survives; the mathematical sense comes from the title of a book, *ilm al-jabr wa'l-muqābala* 'the science of restoring what is missing and equating like with like,' by the mathematician al-Ḳwārizmī



A stamp issued in honor of al-Khwarizmi by the former USSR post in 1983. The text in Cyrillic reads: 1200 Years, Mukhammad al-Korezmi.



Some examples of the complex symmetries used in Islamic temple decoration

Major Arabic mathematical works were brought to Al-Andalus by the 9th century, along with important Greek translations and commentaries. Together with a translation of Euclid's *Elements*, they became the two foundations of subsequent mathematical developments in Al-Andalus. It is clear from their own achievements that scholars in Al-Andalus followed advancements in other Muslim lands, and contributed their own.

Today, al-Khwarizmi's work exists only as a Latin translation made in Toledo, Spain, by Gerard of Cremona (d. 1187 CE). Europeans did not gain access to the mathematical knowledge found in Spain and North Africa until the 12th and 13th centuries CE. It entered Europe both through scholarly and commercial means. Fibonacci (d. 1250 CE), an Italian mathematician who traveled between Europe and North Africa, transmitted mathematical knowledge from Muslim lands to Europe and made his own discoveries.

Hindu–Arabic numeral system

European (descended from the West Arabic)	0	1	2	3	4	5	6	7	8	9
Arabic-Indic	٠	١	٢	٣	٤	٥	٦	٧	٨	٩
Eastern Arabic-Indic (Persian and Urdu)	۰	۱	۲	۳	۴	۵	۶	۷	۸	۹
Devanagari (Hindi)	०	१	२	३	४	५	६	७	८	९
Tamil		௧	௨	௩	௪	௫	௬	௭	௮	௯

https://en.wikipedia.org/wiki/File:Arabic_numerals-en.svg

Today's numbers, also called **Hindu-Arabic** numbers, are a combination of just 10 symbols or digits: **1, 2, 3, 4, 5, 6, 7, 8, 9**, and **0**. These digits were introduced in Europe within the XII century by **Leonardo Pisano** (aka Fibonacci), an Italian mathematician. L. Pisano was educated in North Africa, where he learned and later carried to Italy the now popular Hindu-Arabic numerals.



- Patterns and repetition
- Geometric patterns
- Vegetal patterns

The Islamic Decorative Canon



Calligraphy



Geometric



Arabesque

What might be the relationship between repetitive geometric and vegetal patterns, mathematics (algebra, algorithms, and “0”), and God or infinity?



Figures and the Figurative in Islamic Art

Illustration showing Mohammed (on the right) preaching his final sermon to his earliest converts, on Mount Arafat near Mecca; taken from a medieval-era manuscript of the astronomical treatise *The Remaining Signs of Past Centuries* by the Persian scholar al-Biruni



This classic image of Mohammed riding Buraq on his "Night Voyage" to Paradise has been reproduced frequently in the West over the years; this version was taken from the cover of the book *The Miraculous Journey of Mahomet* by Marie-Rose Seguy. This illustration is one of several similar Islamic illustrations from the Medieval period showing the same scene; the exact provenance of this one is (as of this writing) unknown.

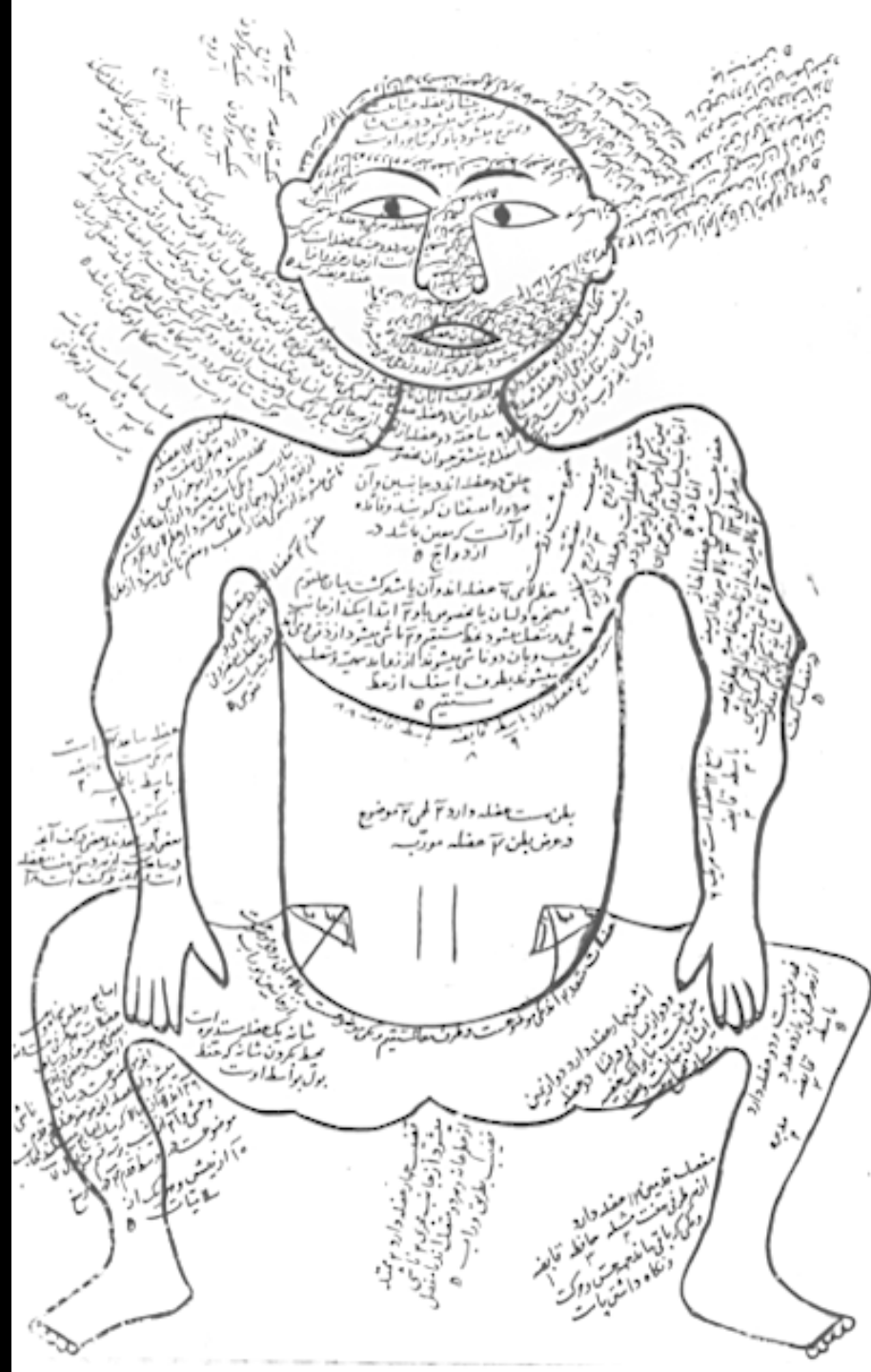


Left: A loose sheet with a bloodletting figure having points labeled that were thought best for phlebotomy. Such figures are derivative from late-medieval European bloodletting figures. Undated, probably 18th century.

Right: A loose sheet with a figure, drawn frontally, showing the venous system. The figure is closely related to those usually associated with the *Tashrīh-i Manṣūri* treatise on human anatomy by Ibn Ilyas, who worked in Shiraz in Iran at the end of the 14th century. Undated, probably 18th century.



Illustrations of surgical instruments from a 13th-century Arabic copy of al-Zahrawi's *On Surgery*



Near Left: Muscle figure, shown frontally, with extensive text denoting muscles. From *The Anatomy of the Human Body* (*Tashrih-i badan-i insan*) written in Persian at the end of the 14th century by Mansur ibn Ilyas. Copy completed 8 December 1488 (4 Muharram 894 H) by Hasan ibn Ahmad, a scribe working in Isfahan.



Spolia



SPOLIA: Spolia (Latin, 'spoils'), the repurposing of building stone for new construction, or the reuse of decorative sculpture on new monuments, is an ancient and widespread practice whereby stone that has been quarried cut and used in a built structure, is carried away to be used elsewhere.



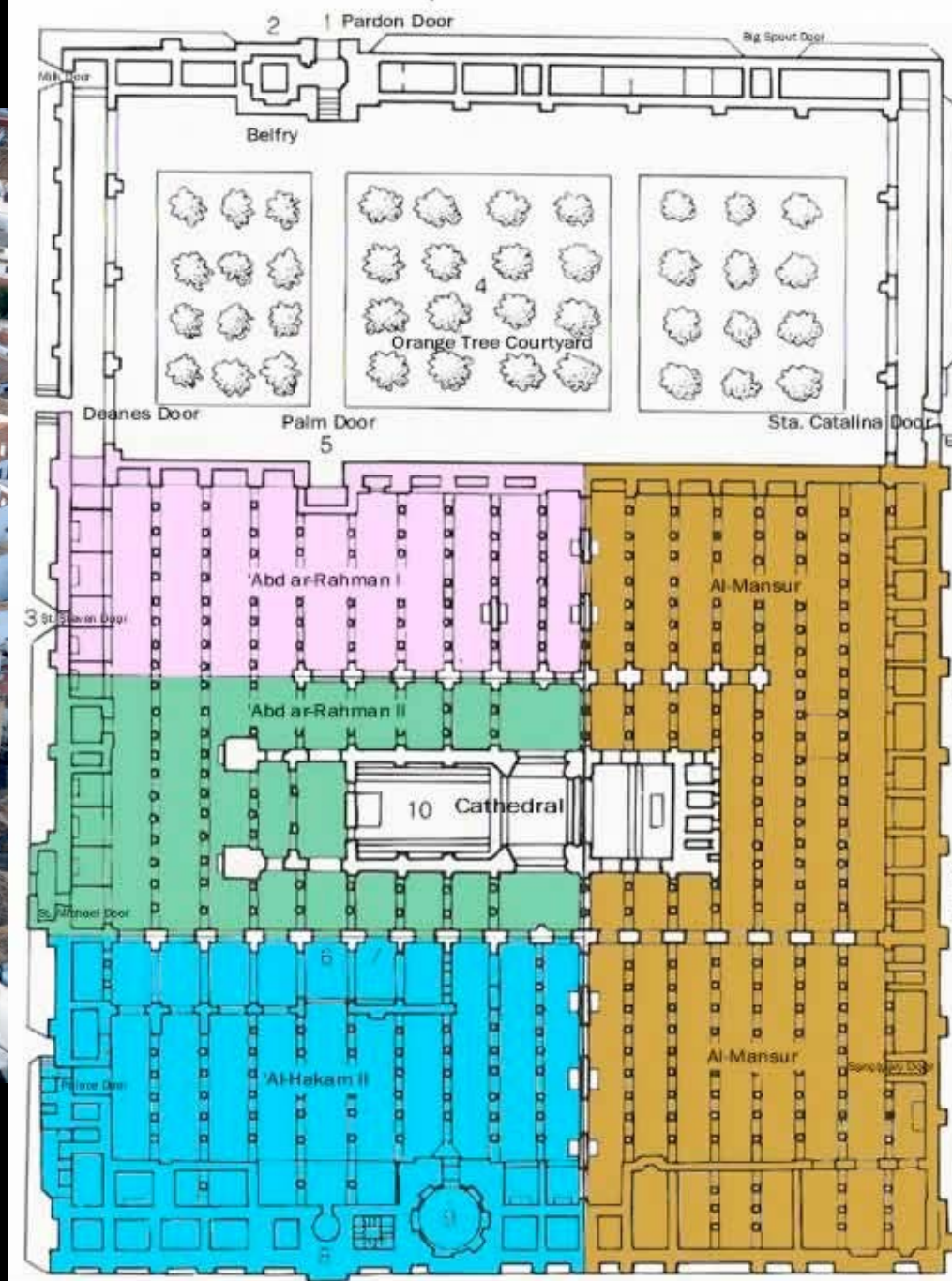
Color coding showing spolia used in the Arch of Constantine

(south side):
Red: Trajan
Blue: Hadrian
Green: Marcus Aurelius





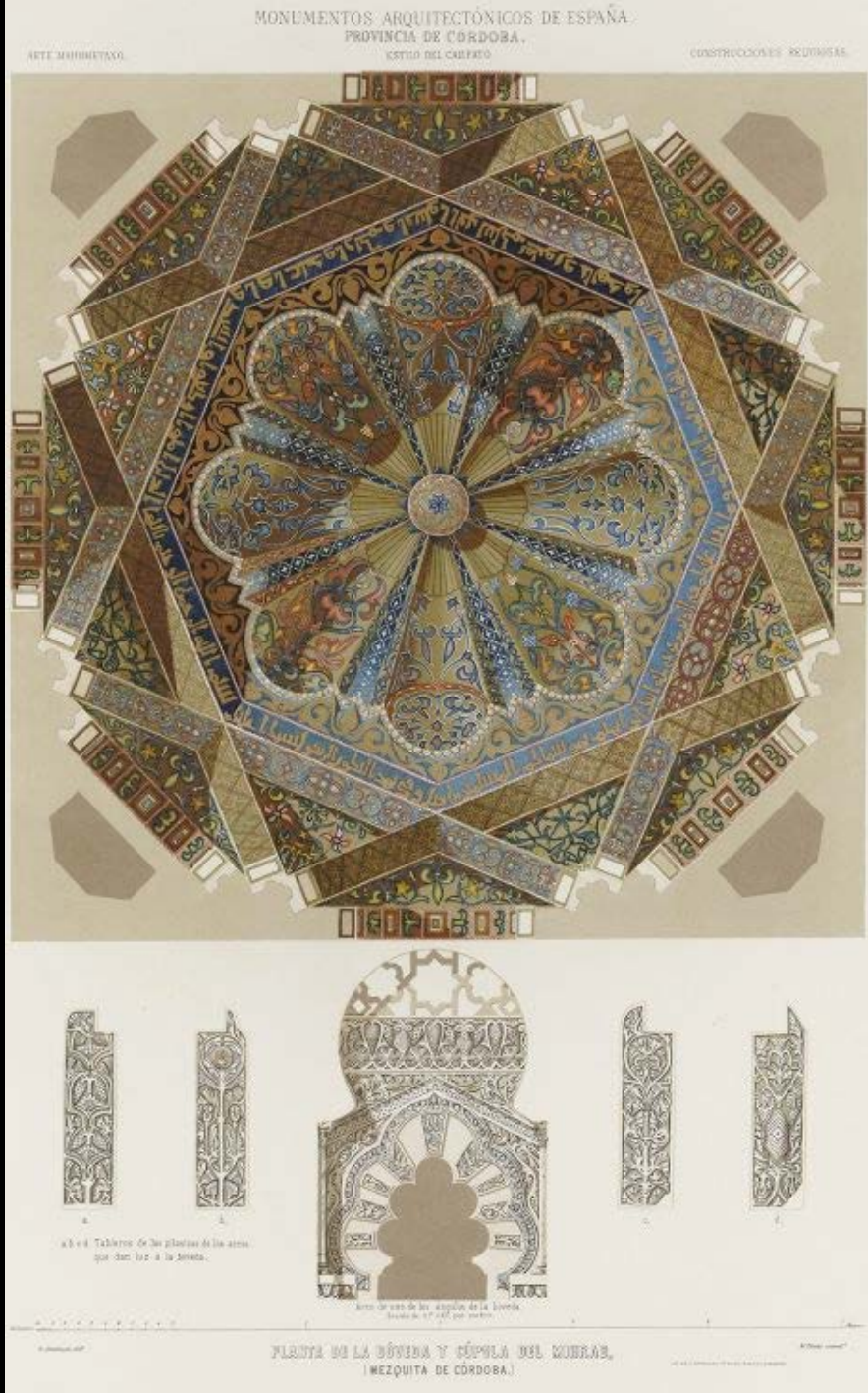
Plan of Mosque Cathedral of Cordoba





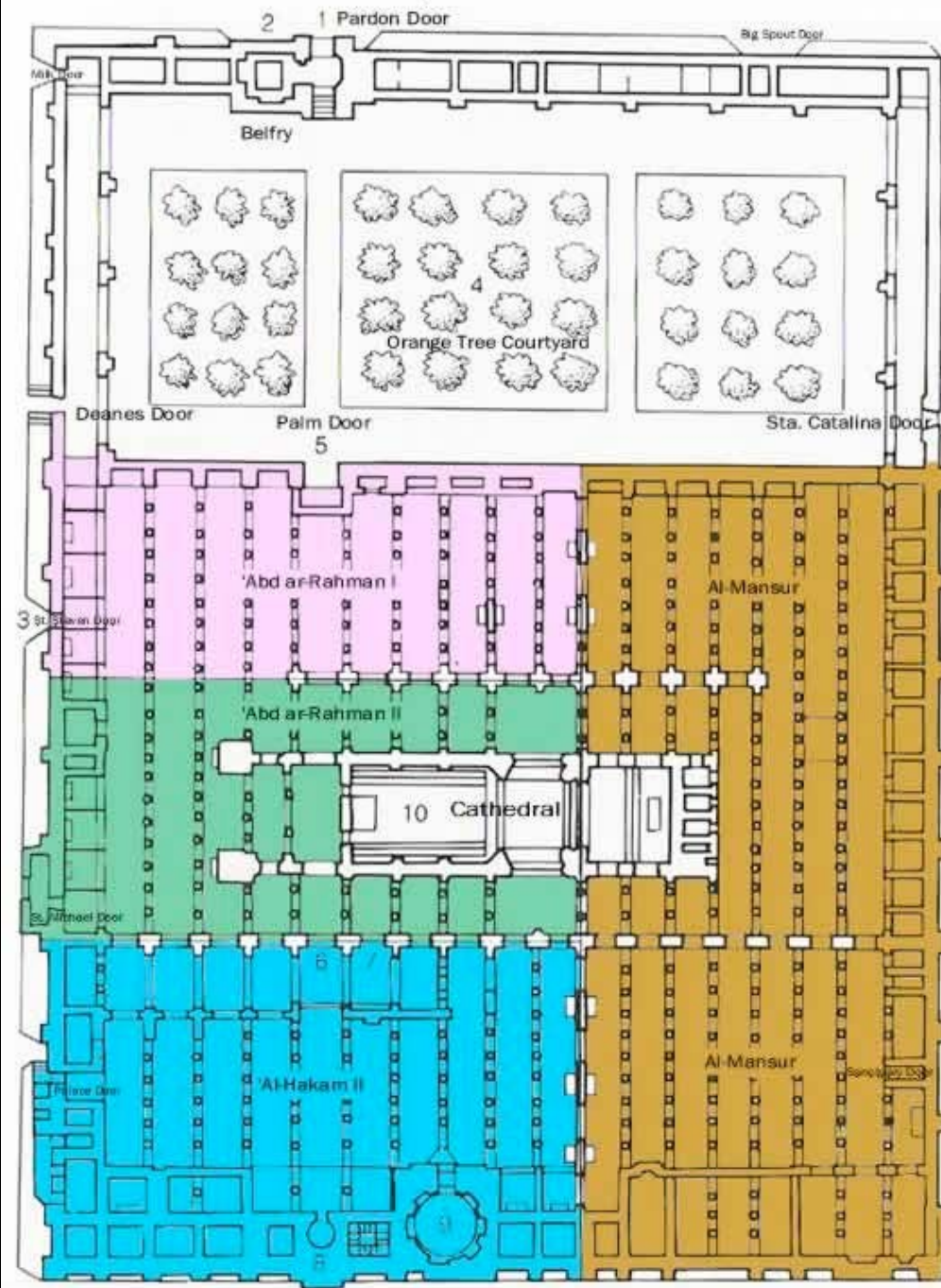
Above: Dome Over Mihrab Chapel
Right: View of Mhirab



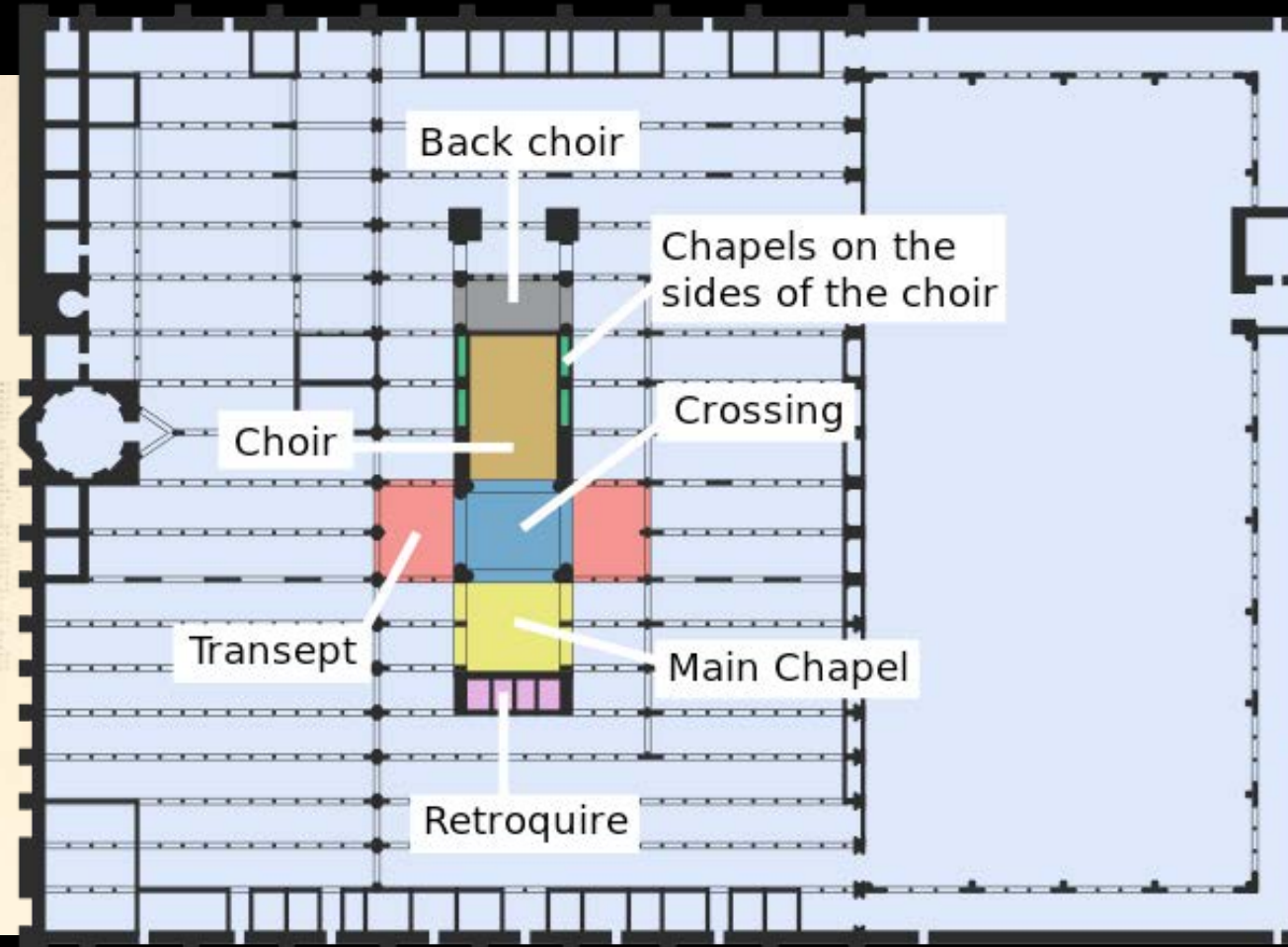
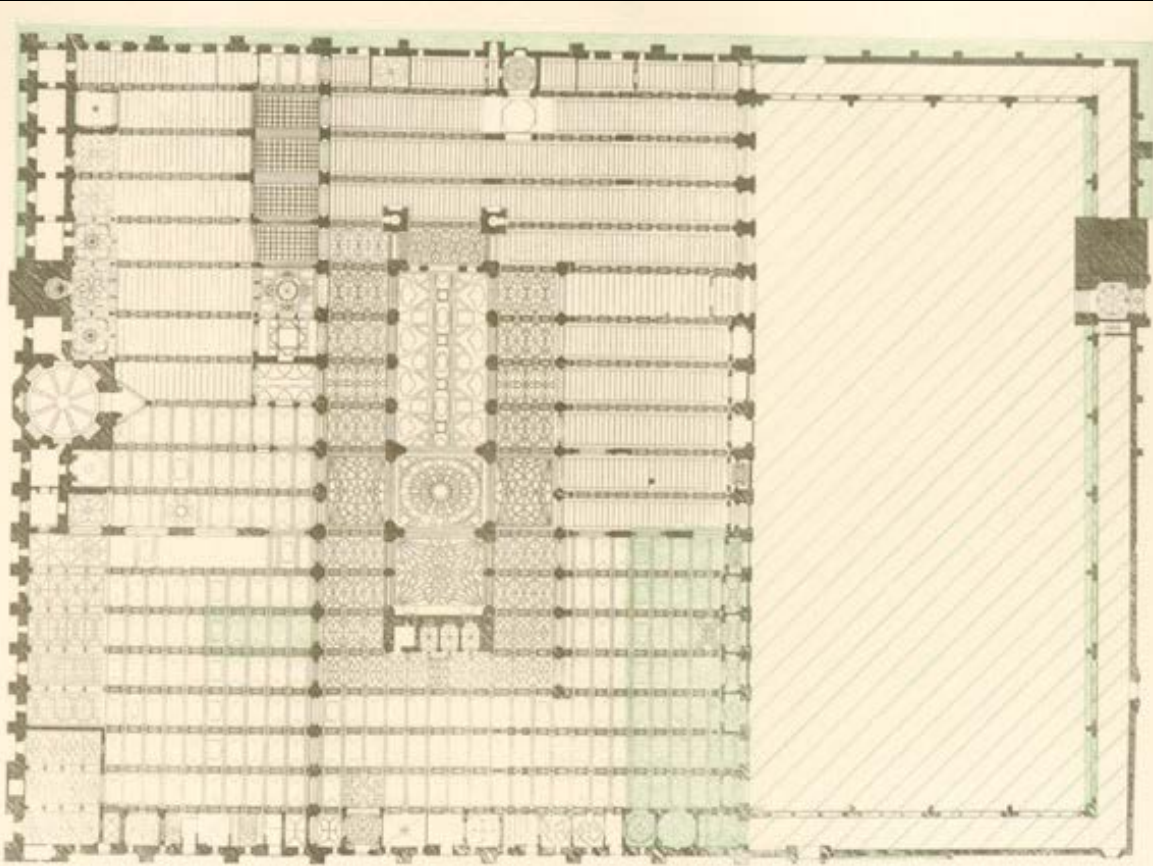




Plan of Mosque Cathedral of Cordoba







In 1236, Córdoba was conquered by King Ferdinand III of Castile, and the mosque was converted into a Catholic church in its center. The kings who followed added further Christian features, such as King Henry II rebuilding the chapel in the 14th century. The minaret of the mosque was also converted to the bell tower of the cathedral. The most significant alteration was the building of a Renaissance cathedral nave in the middle of the expansive structure. The insertion was constructed by permission of Charles V, king of Castile and Aragon.



A view of Cordoba Cathedral's renaissance high altar, its gothic ceiling, the baroque lectern and pulpit, and the renaissance walls of the north and south transept, which blend into Islamic arches from Almanzor's final expansion of the Mosque at the end of the 10th century.



The Sagrario Chapel Parish (Capilla del Sagrario) is in the southeast corner of the former mosque and is full of frescos.



Contrast between Almanzor's last expansion of the Mosque and Christian architecture, in the row of columns adjacent the 16th-century cathedral.



Front view of intertwined, multi-lobed arches in Villaviciosa Chapel, looking toward Al-Hakam II's mihrab.

Orientalism

- In particular, Orientalist painting, representing "the Middle East", was a genre of Academic art in the 19th century.
- ***Orientalism*** is a 1978 book by Edward W. Said which studies the cultural representations that are the bases of Orientalism, which Said defined as the West's patronizing representations of "The East" — the societies and peoples who inhabit the places of Asia, North Africa, and the Middle East. According to Said, orientalism (the Western scholarship about the Eastern World) is inextricably tied to the imperialist societies who produced it, which makes much Orientalist work inherently political and servile to power



Left: Edwin Lord Weeks, Interior of the Mosque at Cordoba, 1880



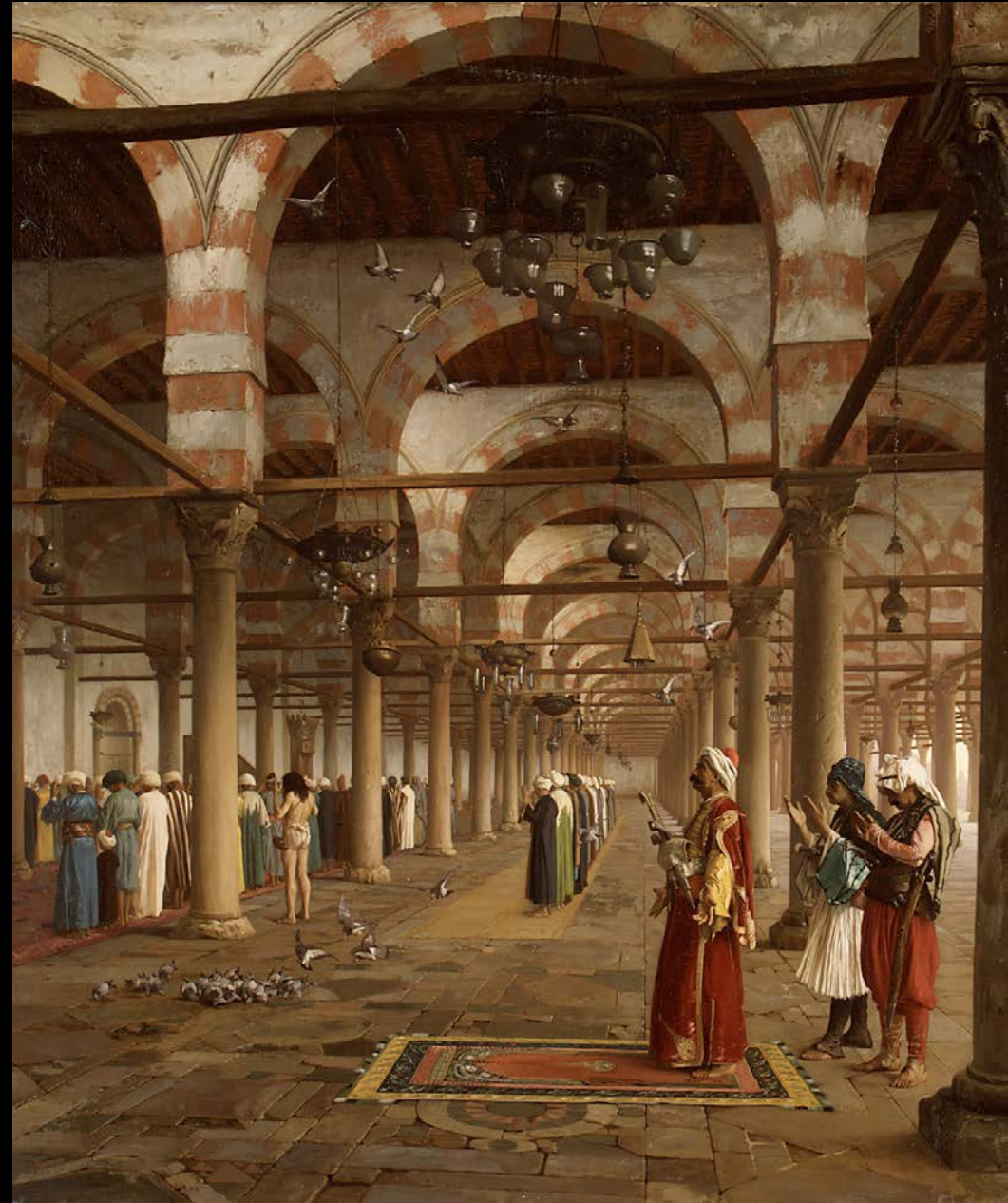
David Roberts, The Interior of the Mosque, Cordoba, 1838



David Roberts, The Sanctuary of the Koran; Mosque at Cordoba, (Scotland, 1849)

Jean-Léon Gérôme, *Prayer in the Mosque*, 1871

Gérôme painted this scene, which depicts the interior of the seventh-century mosque of 'Amr in Cairo, after his visit to Egypt in 1868. The rows of worshipers, ranging from the dignitary and his attendants to the loincloth-clad Muslim holy man, face Mecca during one of the five daily prayers. It is unlikely, however, that Gérôme witnessed a service at this particular mosque, which had fallen into disuse by 1868. Rather, the image is probably a composite of sketches and photographs of various sites. Gérôme traveled widely in the Middle East; more than two-thirds of his paintings are devoted to Orientalist subjects.





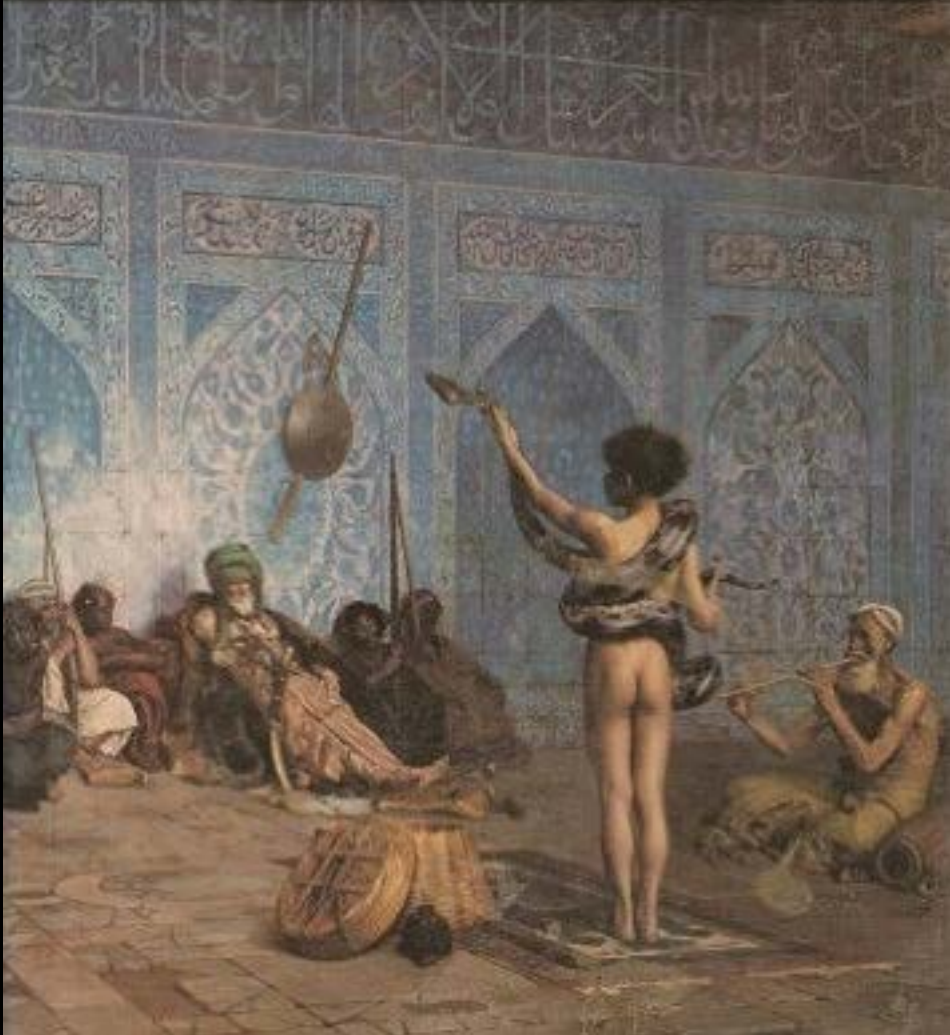
Jean-Léon
Gérôme,
Interior of a
Mosque, 1870



Jean-Léon
Gérôme, *The
Snake Charmer*,
c. 1879

ORIENTALISM

EDWARD W. SAID



Orientalism

- In particular, Orientalist painting, representing "the Middle East", was a genre of Academic art in the 19th century.
- ***Orientalism*** is a 1978 book by Edward W. Said which studies the cultural representations that are the bases of Orientalism, which Said defined as the West's patronizing representations of "The East" — the societies and peoples who inhabit the places of Asia, North Africa, and the Middle East. According to Said, orientalism (the Western scholarship about the Eastern World) is inextricably tied to the imperialist societies who produced it, which makes much Orientalist work inherently political and servile to power