



11 ROMAN ARCHITECTURE 2

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Elements of Roman architecture

- **Temples**
- **Aqueducts**
- **The forum**
- **Theatres, amphitheaters, the coliseum, circuses**
- **Public baths and thermae**
- **Villas, domestic houses**
- **Monuments**
- **Triumphal arches, gates**



Temples

The pantheon

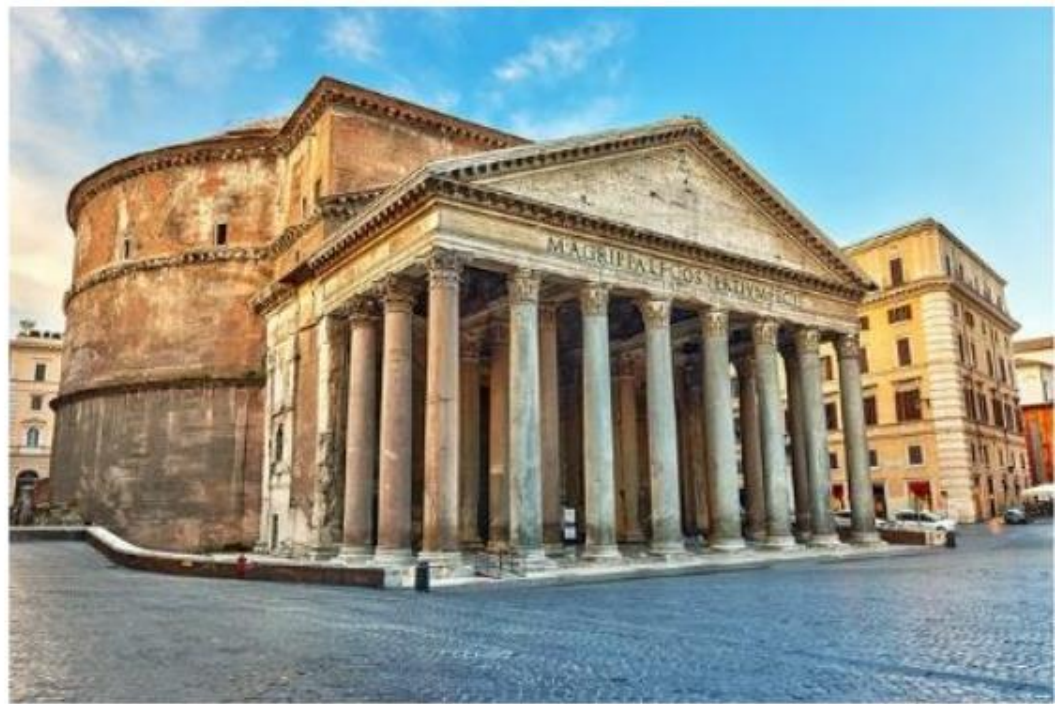
- The first Pantheon which was small rectangular and had north entrance was built in 27 B.C. by Marcus Vipsanius Agrippa. After it burned down twice by fire, the Emperor Hadrian built it again with huge round hall and dome.
- *The Pantheon is the first temple to combine the technique of concrete construction with Greek classical orders.*



Temples

The pantheon

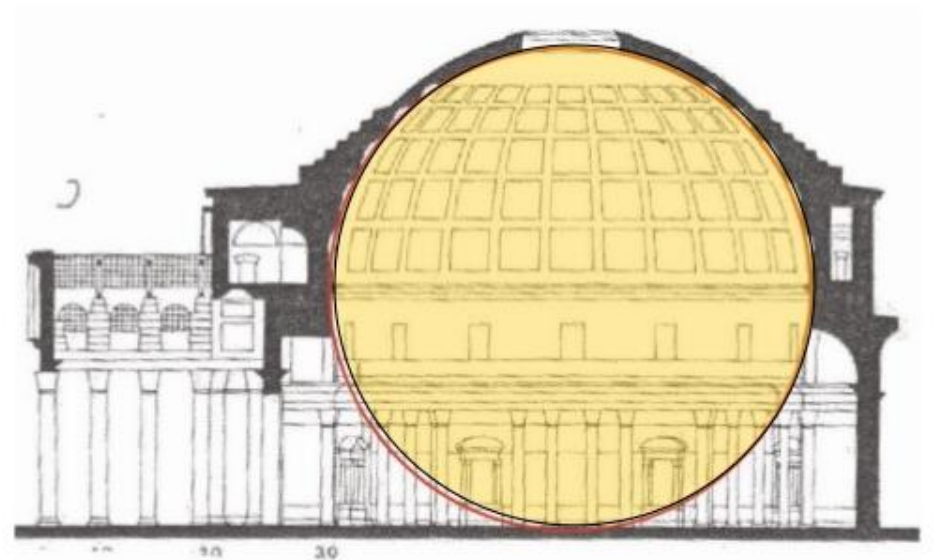
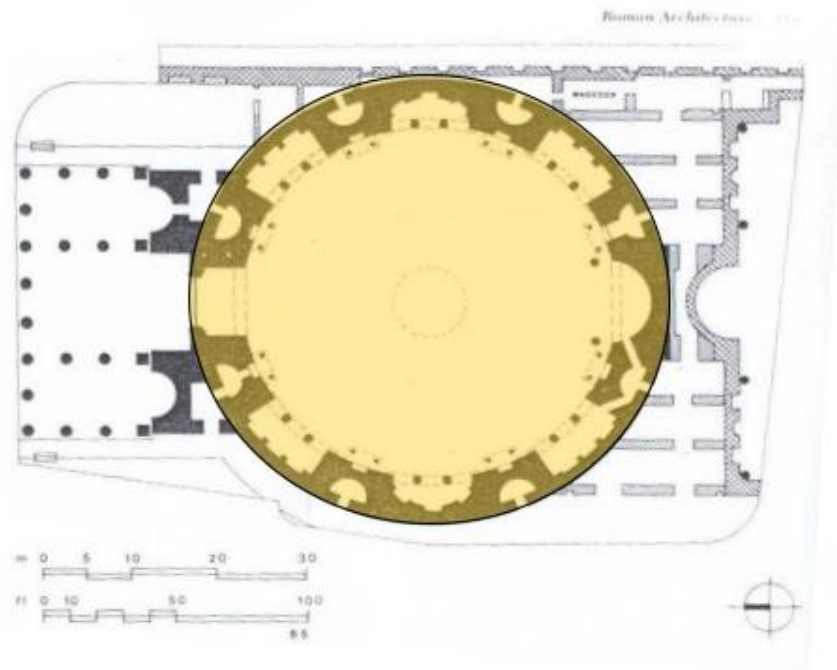
- The porch has 24 Egyptian gray granite columns in front and side, four Egyptian red granite columns beside the entrance, their height is 14m.
- The capital and the base of columns are white marble which are same product of Parthenon.
- *The Roman Pantheon is the largest unreinforced solid concrete dome in the world,*



Temples

The pantheon interior

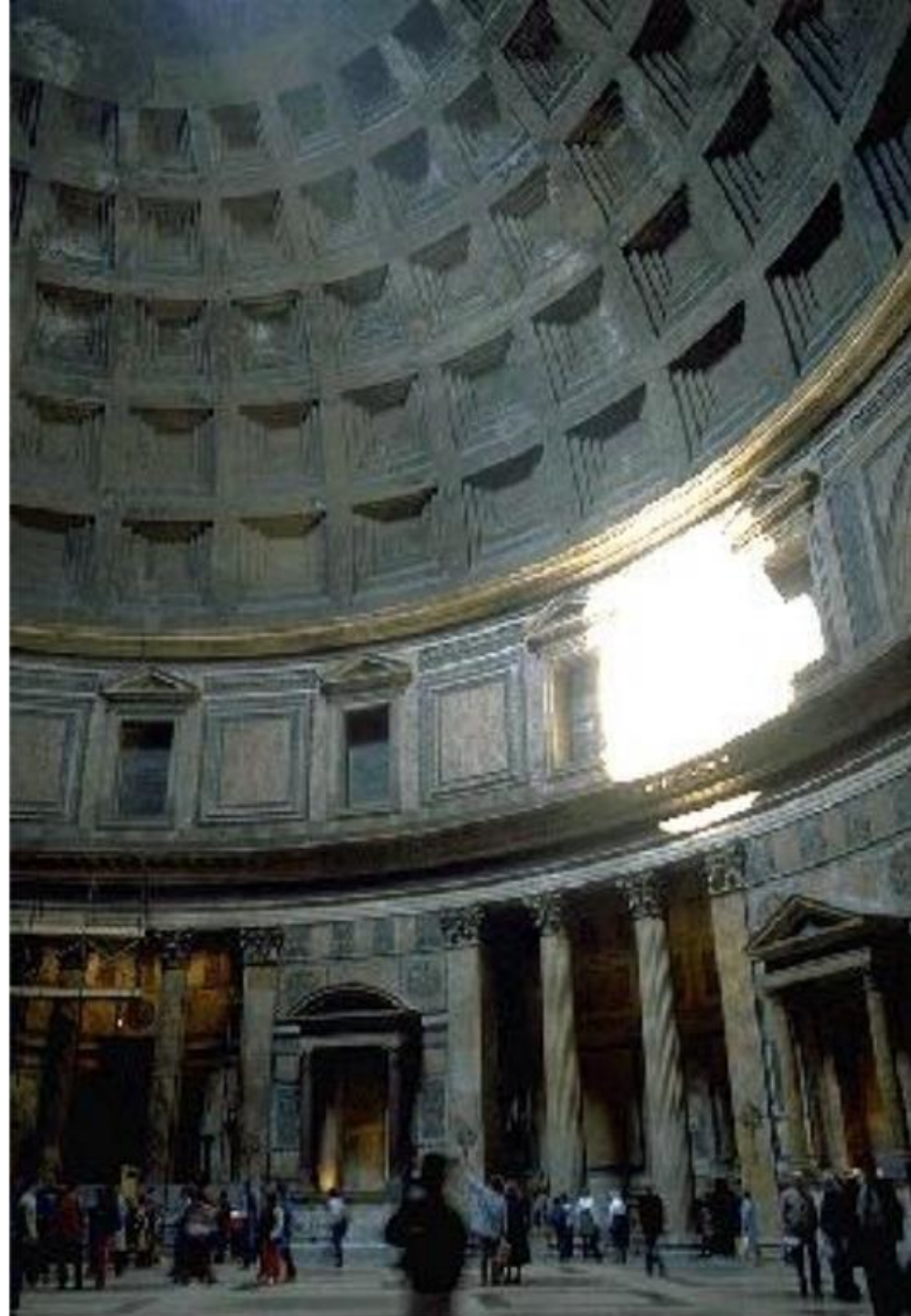
- The interior is a perfect circle its diameter and height are exactly same, 43m.
- The circular plan represents the sphere of the world



Temples

The pantheon interior

- The wall is 6.05m thick and on the lower level are seven niches with a pair of Corinthian columns.
- The lower level and the second level are divided by the cornices in the ratio of a square root of 2 to 1.

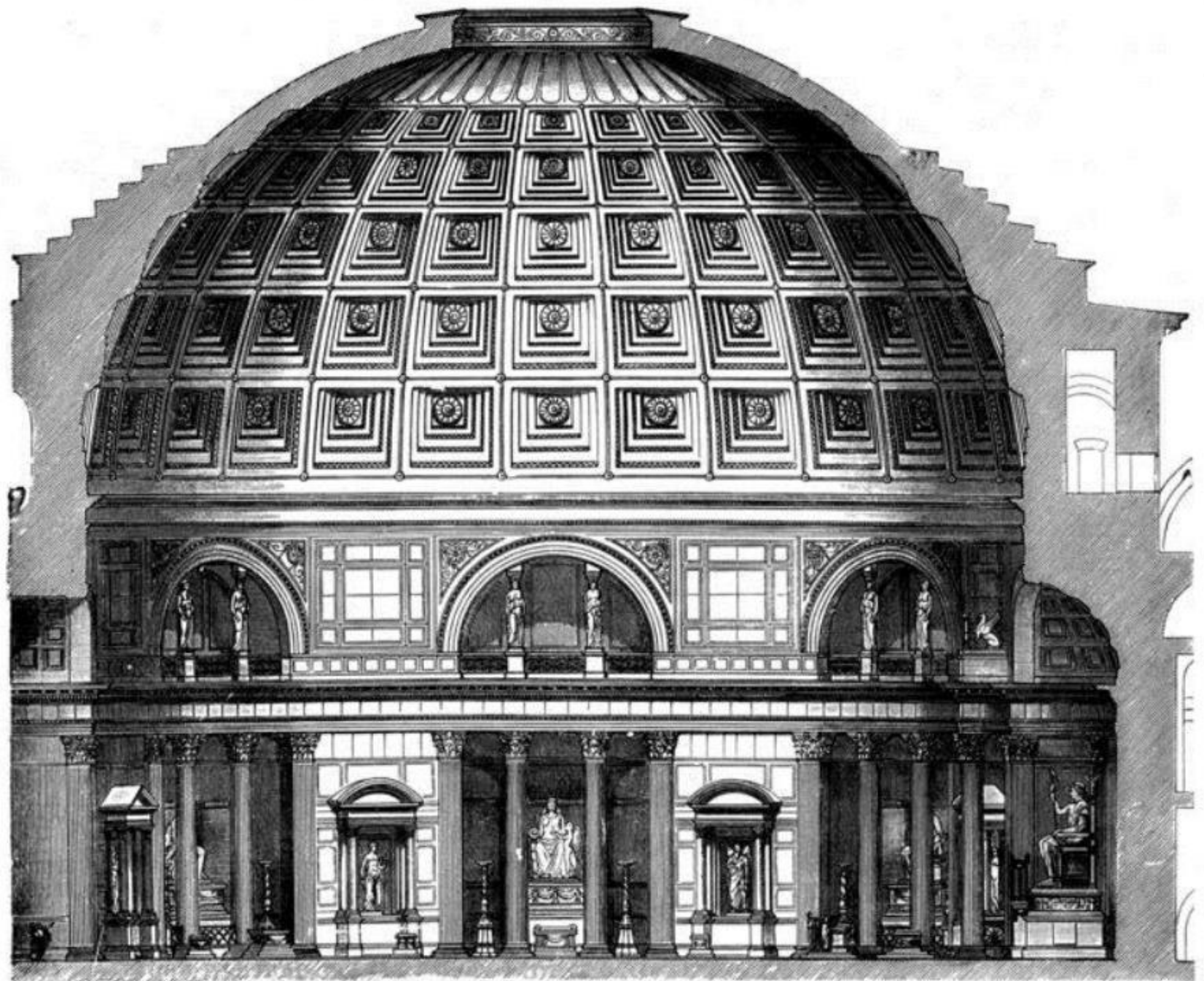


Temples

The pantheon interior

- The hemispherical dome has the skylight **oculus** of 8.9m in diameter.
- The void oculus brings the silent light to the real wall and it moves in the time and the space.
- The floor is paved by the marble with circular and cubic pattern. The wall is covered with marbles which colors are basically yellowish brown, white, green and reddish-brown.



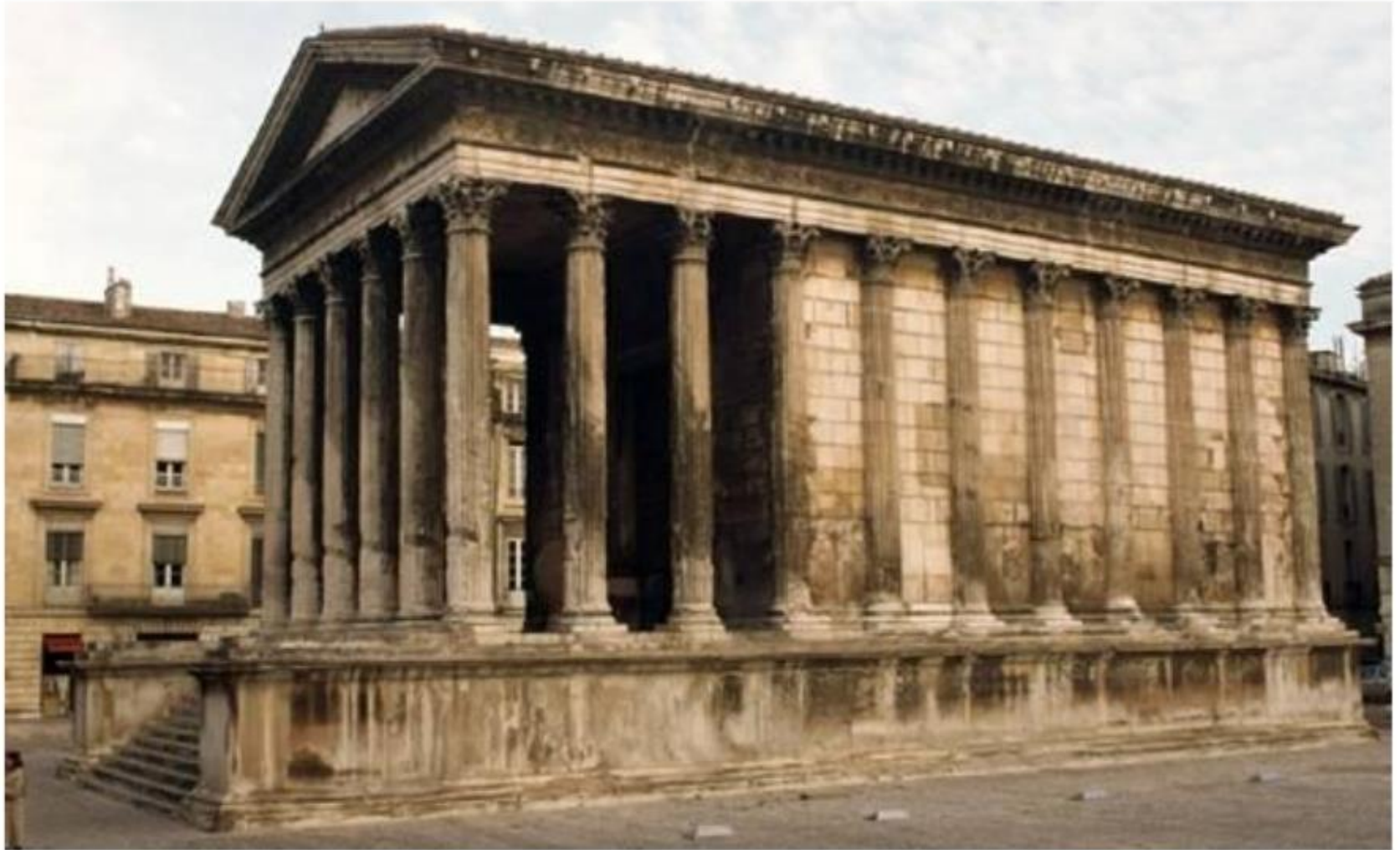


Temples

Maison Carree; France (Nimes); approx. B.C.19

- It is a French name meaning “square house”
- In B.C.27, Nimes belong to the Rome under the reign of Augustus.
- Maison Carre is a pseudoperipteros temple with 6 Corinthian columns in front in Early Imperial Rome period when the Roman temples have been strongly influenced by Greek temple style.
- The high podium, and wide front steps in the midst of front part of podium are characteristics of Roman temples

Maison Carree



Amphitheaters and circuses

- Unlike Greek theaters, which were situated on natural slopes, Roman theaters were supported by their own framework of *piers and vaults* and thus could be constructed **in the hearts of cities**.
- Amphitheaters (literally, double theaters) were **elliptical in plan** with a **central arena**, where gladiatorial and animal combats took place (Gladiator), and a surrounding seating area built on the pattern of Roman theaters



- مدرّج Colosseum من المدرّجات الأكثر شهرةً لحفاظه على معظم ملامحه
- وهو أعلى المنشآت الرّومانية بارتفاع يصل لحوالي 50م
- مسقطه بيضوي الشّكل وقطراه 188م و156م
- رغم زوال المقاعد والتي قدّر عددها بـ 87 ألف ، كانت تقسّم المقاعد تبعاً لطبقات المجتمع
- يحتوي المدرّج على 46 بوابة للدّخول والخروج مع وجود مظلة قابلة للإزالة لتأمين الظلّ للمدرّجات
- تتألّف واجهة المدرّج الخارجيّة من 3 طبقات من الأقواس، لكلّ واحدة منها نوعٌ مختلفٌ من الأعمدة
- حيث استُخدم في الطّابق الأرضي النمط التوسكاني
- وفي الطّابق الأول النمط الأيوني
- أمّا في الطّابق الثّالث فقد استُخدم النمط الكورنثي.
- تم افتتاح المدرّج في عام 80م
- وهو مبني من الحجر الجيري والطّوب والرّخام مع استخدام الخرسانة للأساسات



The Colosseum

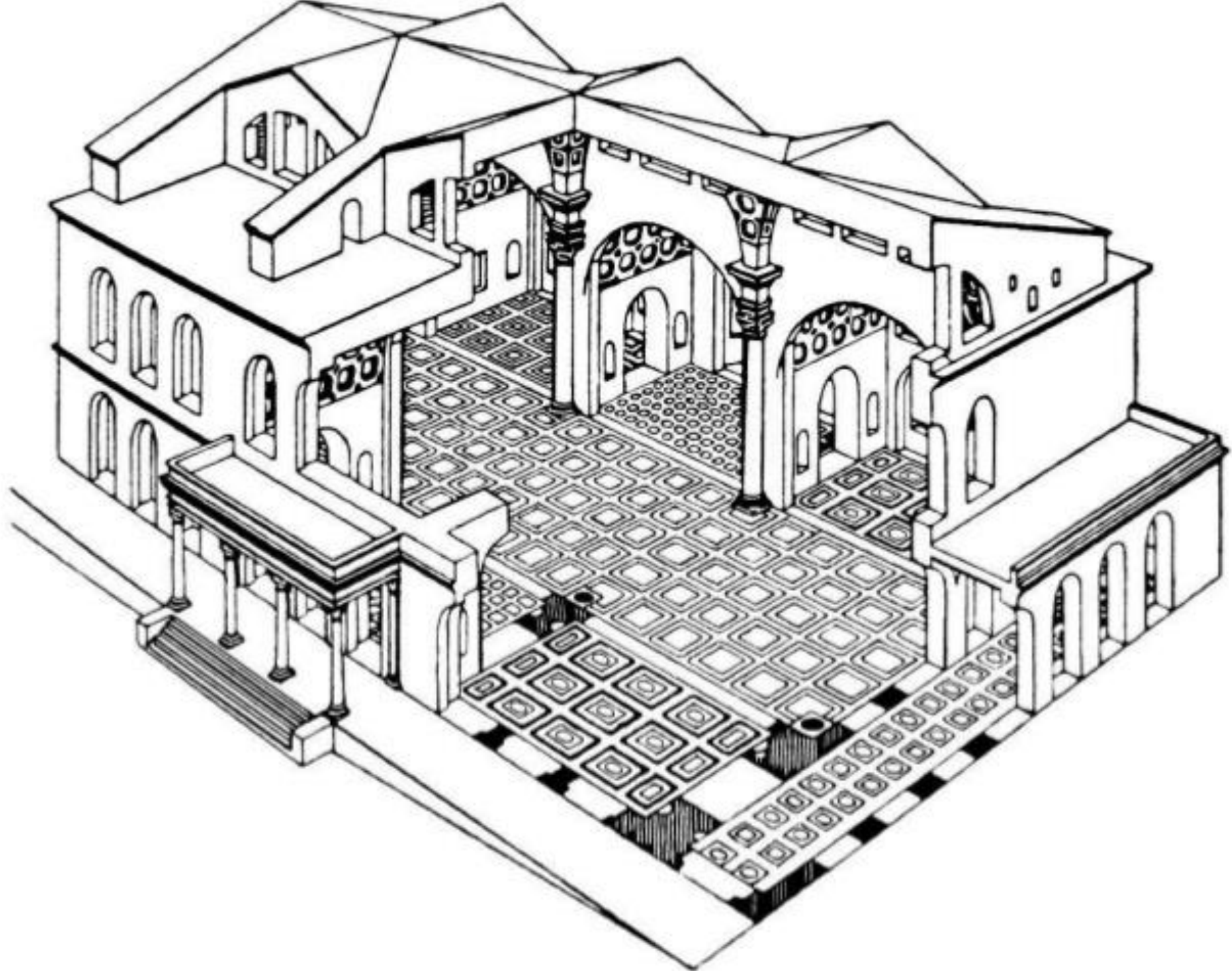


Basilicas

Basilica of Constantine

- constructed of concrete and high ceiling vaulted brick arches in the early fourth century AD.
- served as the architectural model for Grand Central Station in New York.
- The interior would have been lavishly decked out in rich marbles, enormous Corinthian columns, statues in recesses, and glass windows.





Aqueducts

Pont Du Gard

- On the top of the 35 small arches, about 8.5m high 3m wide, support the waterway.
- The big arch, the bottom arch and middle arch, have 3 times or 4 times of the small arch in span and 6 times of the small arch in height.
- There was only 17m fall from the headwaters to Nimes and that meant the incline was 34cm per 1km.



Public baths

- After a morning's work at the office or shop, most Roman's enjoyed spending the afternoon at the *thermae* or public bath. Men and women enjoyed coming to the baths not only to get clean but to meet with friends, exercise, or read at the library.
- There were around 952 public baths of varying sizes in Rome
- Roman baths and *thermae*, were used for much more than simply washing.
- They combined aspects of **a modern health club** with that of a *public library and school*.





Arch of Constantine



Conclusion

- **Unlike Egyptian architecture, which focused on the next world, Roman architecture focused on this world**
- **Roman buildings, like the more elemental Greek buildings which influenced them, addressed not the mysteries of the hereafter but the problems of the present.**

Conclusion

- Having found a new material which is *concrete*, Roman architects discovered ways of shaping and playing with space, of molding light and shadow, that has repeatedly inspired architects ever since.



Terms to remember

- Arch
- Triumphal arch
- Aqueduct
- Forum
- Basilica
- Composite order
- Public baths
- Circus
- Amphitheatre
- Colosseum
- Pantheon
- Oculus



Thank you