

The Pantheon

by Sophia



WHAT'S COVERED

The Pantheon, located in Rome, has some of the most innovative and elaborate details and construction elements in Roman architecture. In this lesson, you will learn about:

1. [Period and Location: The Pantheon](#)
2. [The Pantheon](#)
3. [The Pantheon's Design](#)
4. [The Dome](#)



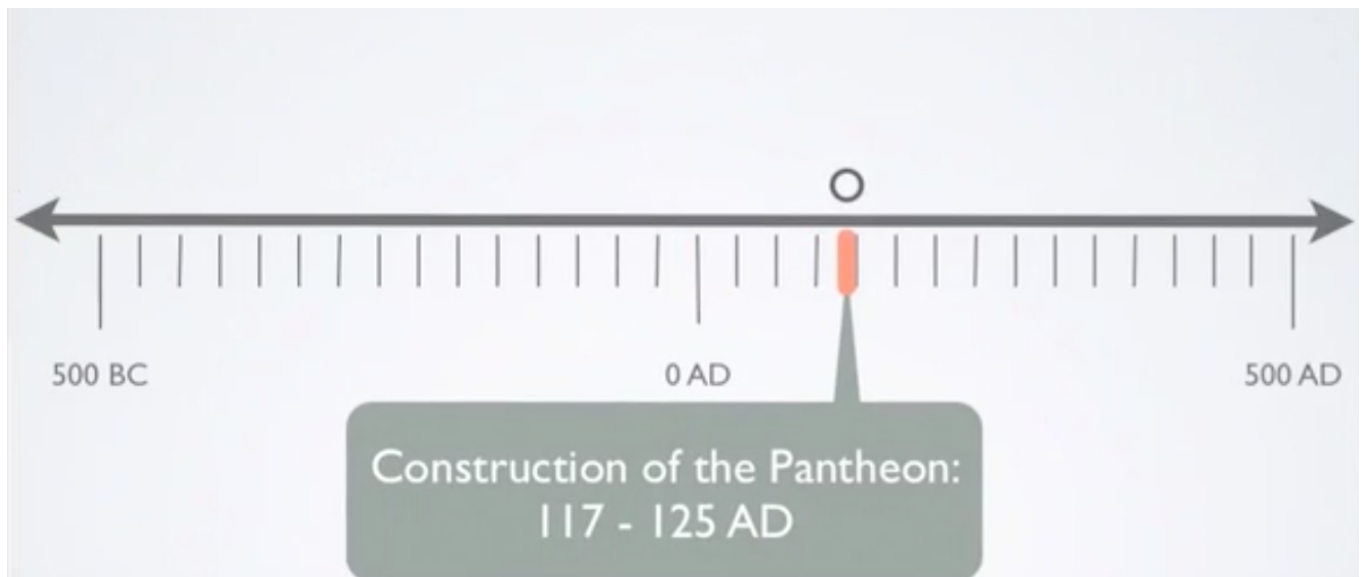
BIG IDEA

The Pantheon is the most important example of Roman architecture.

1. Period and Location: The Pantheon

The Pantheon in Rome, not to be confused with the Parthenon, which is in Greece, was constructed during the reign of the emperor Hadrian between 117 CE and 125 CE.

The timeline below highlights the period covered in this lesson.



2. The Pantheon

The Pantheon's technical innovation is what makes it arguably the most important example of Roman architecture. Built during the years 117 to 125 CE, the Pantheon was constructed out of concrete and stone. The front **Corinthian order** columns are granite, and the dome is concrete.



The Pantheon

117–125 CE

Concrete and stone

Pantheon means “all gods.” This structure was originally constructed in honor of the Roman god or gods. The Romans adopted many Greek gods as a result of contact with their culture. There were multiple Greek colonies on and near the Italian peninsula, and in 146 BCE, the Romans conquered the Greeks at the battle of Corinth. The Romans often incorporated the religious practices of the regions they conquered into their own culture. The Pantheon represented on one level an attempt to centralize the worship of many deities spread throughout the empire. Today it is a Catholic church.

⇒ **EXAMPLE** The Roman god Jupiter is equivalent to the Greek god Zeus, and the Roman god Mars is equivalent to the Greek god Ares.



TERM TO KNOW

Corinthian Order

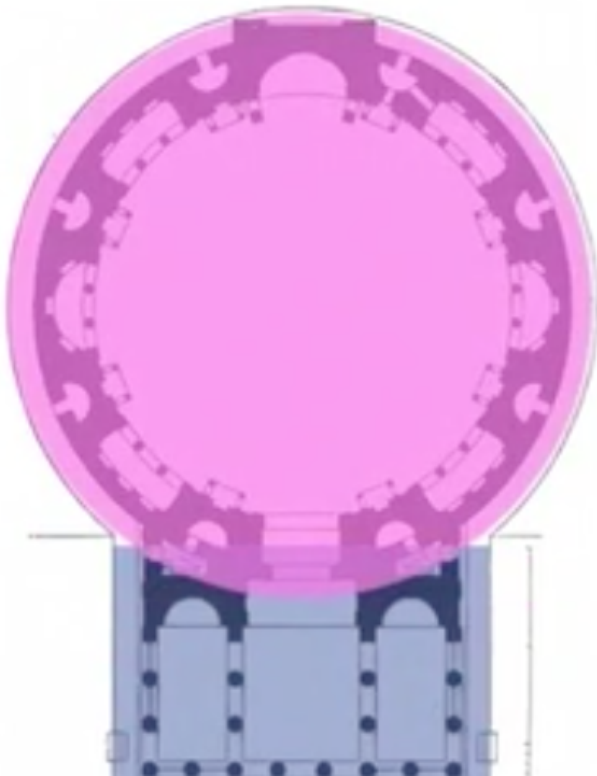
The most recent of the three classical orders of column and also the most refined and decorative, marked by acanthus leaf decorations at the capital.

3. The Pantheon's Design

The design of the Pantheon is an interesting combination that includes:

- Greek-style temple
- Rectangular front section called a portico (porch)
- Roman-style rotunda (a circular building with a dome)

Take a look at the following image of the Pantheon's design elements. The blue rectangle indicates the portico, and the purple circle indicates the rotunda.



While the combination of these elements might seem like quite an architectural and design feat, these designs complement each other well. The rotunda allows the building to open skywards, while the Greek-style temple provides an aesthetically pleasing front view. In fact, from the front of the temple, the dome isn't even visible.

⇒ **EXAMPLE** Below is a frontal view of the Pantheon where you can clearly see the two architectural styles together as well as the use of the Corinthian-style columns. Corinthian-style columns, the most ornate type of column, are used on the exterior and interior of the building.



Frontal view of the Pantheon

Notice that these columns are not fluted. The Greeks often fluted their columns to hide the fact that they were made out of **drums**, and since these columns are made out of concrete, they didn't need any fluting; they could just be smooth.

Over the front entrance is an inscription dedicated by the emperor Hadrian to Marcus Agrippa, who was the man responsible for the construction of another Roman temple, the Maison Carrée in present-day France. The dome, however, is the most impressive and technologically innovative element of the Pantheon. Its construction would not have been possible without concrete.

⇒ **EXAMPLE** This next image is the front of the Pantheon.



Front view of the Pantheon

You can see the inscription dedicated to Marcus Agrippa. This gives you an idea of scale and how the dome wouldn't be visible from the very front of the temple.

The interior of the Pantheon used Corinthian columns, and there are also alcoves, or niches, embedded within the circular walls of the rotunda. Originally, each would have held a separate sculpture and functioned as a shrine dedicated to an individual deity. Eventually, after the fall of Rome and the rise of Christianity, the Pantheon, like many classical temples, was converted into a Christian church.

➞ **EXAMPLE** Here is a view of the interior of the Pantheon.



Interior of the Pantheon



TERM TO KNOW

Drum

A cylindrical stone that forms part of a column.

4. The Dome

If you can imagine taking a rounded arch and spinning it around its vertical axis, you would end up with a **dome**. It's a self-supporting structure, but depending on the materials used, a substantial amount of weight can be created. A dome the size of the Pantheon's made from cut stone would not have been possible. The lower layers of the Pantheon's dome were made with harder, denser stone near the bottom, with additional layers using progressively lighter stone. The dome was also thicker at the bottom and got thinner towards the top. The topmost layer was made of concrete using pumice, a lightweight volcanic stone. These innovations made the Pantheon the first dome in human history and the largest dome ever made of unreinforced concrete.

One of the main concepts behind the Pantheon's design was that a sphere could fit inside its interior space. This sphere is 43.3 meters in diameter. The dome would be the orb of the heavens, and the interior space represented the orb of the earth.

Here is a diagram showing how a sphere could fit inside the Pantheon. This image also shows how the thickness of the dome diminishes near the top.

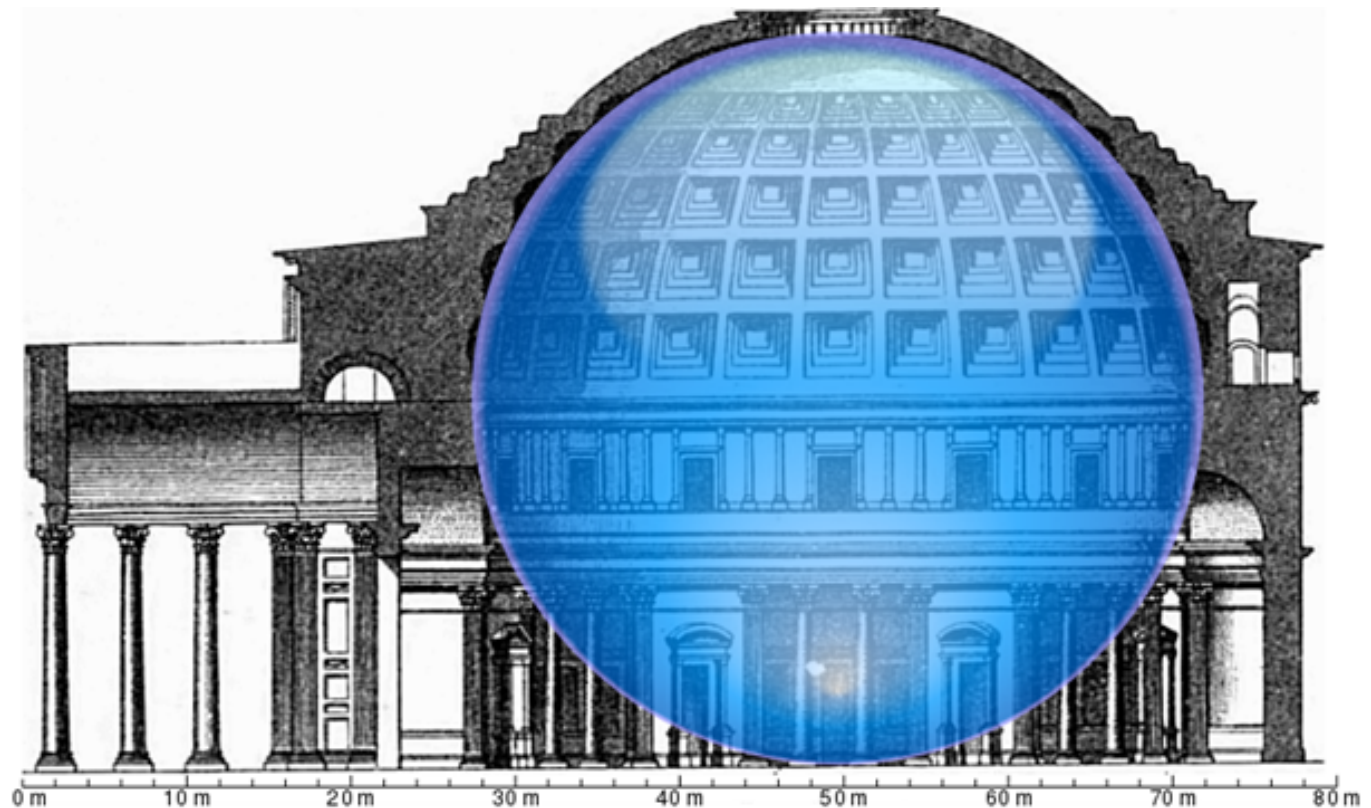


Diagram showing how a sphere could fit inside the Pantheon

The rectangular pattern or recesses that you see in the photo below are called **coffers**. They would have originally been painted blue to imitate the sky, which is really the whole point of having the dome. It also helped to create a sense of openness and depth in the ceiling. The center hole, or **oculus**, would have illuminated the interior of the Pantheon, blending with the sky motif of the ceiling, and provided a recognizable symbolism of the eye of Jupiter, the Roman equivalent of Zeus. The coffers and the oculus have a practical function, in addition to their aesthetic function. They make the interior space of the dome look aesthetically pleasing, but they also lighten the weight of the dome by reducing its volume. **Rosettes** would have originally been located inside the coffers and were shaped like stars and gilded bronze, and so that would have given this sense of looking at the dome of the heavens.

If you look closely, you can see a series of ridges or a series of solid circular rings that gradually creep inwards. These supported the weight of the dome and channeled it down through the exterior walls.

⇒ EXAMPLE Here is an interior view of the dome.



Interior view of the Pantheon dome

The above image is an 18th-century painting by the artist Giovanni Panini, which provides a nice view of the alcoves mentioned previously, as well as the interior design of the dome.



TERMS TO KNOW

Coffers

Square-shaped elements in the surface of a ceiling or dome, with both a decorative function and a practical one of lightening the weight.

Oculus

An “eye” or round hole in the top of a dome that lightens its weight and allows in natural light.

Dome

A vaulted roof element having a rounded, semicircular, or elliptical shape.

Rosettes

Rose-shaped elements, often in the middle of coffers.



SUMMARY

Located in Rome, the Pantheon is one of the most innovative and elaborate examples of Roman architecture. In this lesson, you learned about the **period and location of the Pantheon**.

The Pantheon was built during the years 117 to 125 CE, and it was constructed out of concrete and stone. The front Corinthian-style columns are granite, and the dome is concrete.

Finally, you explored the **Pantheon’s design and the dome**. The design of the Pantheon is an interesting combination of Greek-style temple, a rectangular front section called a portico, and Roman-style rotunda. Over the front entrance is an inscription dedicated by the emperor Hadrian to Marcus Agrippa. Remember, Agrippa was responsible for the construction of another Roman temple, the Maison Carrée. The dome was an elaborate structure, made to create a sense of openness and depth in the ceiling. The coffers were painted blue to look like the sky.

Source: THIS WORK IS ADAPTED FROM SOPHIA AUTHOR IAN MCCONNELL.



TERMS TO KNOW

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Corinthian Order

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Dome

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