
Ancient Rome's architectural wonders: the Pantheon

One of the most extraordinary buildings of Ancient Rome, even to the modern person, is the Pantheon. The first Pantheon was commissioned by Marcus Agrippa in 27 - 25 BCE, and after being destroyed multiple times, the third version was completed under Hadrian's rule in 125 CE. The architect of the temple was Apollodorus of Damascus, and it is made of concrete, marble, and other various stone. The Pantheon is a building like no other, one of architectural genius and beauty that can be seen nowhere else.

It is not necessary to enter into the Pantheon to see the uniqueness in its architecture and design. Sixteen 50 ton marble corinthian columns support the portico at the front of the temple, it's engraving reading "M AGRIPPA L F COS TERTIUM FECIT," translating to "Marcus Agrippa, son of Lucius, Consul for the third time, built this." Above the portico, where it attaches to the drum, there can be seen the beginning of another portico, higher up. After going through the huge egyptian-imported columns and the massive bronze doors, visitors enter into the overwhelming 150 ft x 150 ft radial interior, which can perfectly fit a sphere in its space. The colorful stone that makes up the floor, walls, and columns is classified as red porphyry, phrygian purple, numidian yellow, and grey granite. The dome is supported by a 20 ft thick drum of concrete, in which architects included voids to made it lighter while also keeping its strength.

The mystery of how this dome is magically supported is actually simple in theory. At the bottom of the dome is the heaviest and strongest material, travertine aggregate, and the components continue to get lighter as the dome gets higher. The next material would be tough brick, followed by pumice and finally air. The oculus in the center has a ring of stone that takes the pressure of the sides of the dome, and therefore the forces from all directions are balanced out. Through this oculus a brilliant circle of light will shine, and it will travel across the Pantheon's interior as the sun moves across the sky. If it is to rain, there is a drain built into the floor of the temple, directly below the opening. Also, there are decorative sunken panels, or coffers, covering the inside of the dome. While the interior of this famous temple is filled with geometrical shapes, experiencing this building gives onlookers a very dynamic feeling. The Pantheon is described accurately by Mortimer Wheeler in his book *Roman Art and Architecture*; "Lightened by its wall-recesses, strong in the powerful lines of it's superbly coffered dome, and united with the dome of heaven itself by the bold opening in its summit, this interior is one of man's rare masterpieces..." (Wheeler, 105) Indeed, the radial building with it's extravagant details and genius engineering, can be matched by no other.

Like the Pantheon's complicated design, the reasons behind why the Pantheon looks like it does today is not always straightforward. Beginning at the exterior of the building, the first point of interest is the double portico. This part of the pantheon confused archeologists for many years, as they could not determine the purpose of the second triangular piece. There is a theory that the columns that were supposed to be imported from Egypt were lost on the voyage, and therefore the romans had to resort to using columns from a different project. However, the beginning of the first portico had already been built, and it was too tall for the replacement columns. As a result, it had to be abandoned, and a new and lower portico started. Moving onto the inside, the wonderful colored stone that makes up the geometrical shapes of the interior were imported from different places like Egypt and used in the building because it was a sign of

the patron's wealth and power, as well as telling of Rome's far reaching command. Line is a major element of the Pantheon; interior columns bring the eyes up the wall where they are lined up with faux windows, and then to the massive dome. The line is broken by the horizontal lines of cofferes, making it appear as if the dome is a detached piece, which can rotate on the edge of the drum. On the exterior, the huge columns lead the eye up to the engraving, and then to the seemingly out of place dome. Finally, one of the Pantheon's most famous attributes is the dome's oculus. It is not exactly known as to why the architect included the oculus. Maybe it was to be a link between heaven and earth, sunlight and ground, possibly even as a sundial, or even just as simple as a way to let light in. No matter the reason, it continues to mystify people today.

While the Word Pantheon means "All of the Gods," the original temple's specific purpose is clouded in mystery. It is believed that it was once filled with statues of gods and goddesses and deified emperors, and could have been used to worship them. We do know that in 608 CE it was converted into a Christian church, and it is the primary reason why the building is in such good shape today. The Pantheon is an excellent example of the greater limits of the Ancient Roman people's skill with the use of cement, and the roman technique of using domes and arches to cover large amounts of architectural space while keeping a very free and open feeling about the building. Buildings inspired by pieces of the Pantheon, especially the dome and its oculus, can be seen in several modern buildings like the California State Capitol in Sacramento. Even today this ancient building inspires wonder in visitors, the way the dome is seemingly held up by some invisible force as well as its colorful and beautifully detailed interior that both overwhelms and pleases the eye.

If one wishes to learn about Ancient Roman architectural styles and building methods, one does not have to look much farther than the Pantheon. It is an extremely well preserved example of the amazing things Roman engineers and architects could do with cement, in addition to their efficient building designs using arches, vaults, and domes. It demonstrates the cultural importance of gods, and the ways that Roman rulers showed off their wealth. The modern person is extremely lucky to have the privilege to walk among such a significant piece of architectural history.