Ancient Roman architecture

Ancient Roman architecture adopted the external language of classical Greek architecture for the purposes of the ancient Romans, but was different from Greek buildings, becoming a new architectural style. The two styles are often considered one body of classical architecture. Roman architecture flourished in the Roman Republic and even more so under the Empire, when the great majority of surviving buildings were constructed. It used new materials, particularly concrete, and newer technologies such as the arch and the dome to make buildings that were typically strong and well-engineered. Large numbers remain in some form across the empire, sometimes complete and still in use to this day.

Roman architecture covers the period from the establishment of the Roman Republic in 509 BC to about the 4th century AD, after which it becomes reclassified as Late Antique or Byzantine architecture. Almost no substantial examples survive from before about 100 BC, and most of the major survivals are from the later empire, after about 100 AD. Roman architectural style continued to influence building in the former empire for many centuries, and the style used in Western Europe beginning about 1000 is called Romanesque architecture to reflect this dependence on basic Roman forms.

The Romans only began to achieve significant originality in architecture around the beginning of the Imperial period, after they had combined aspects of their original Etruscan architecture with others taken from Greece, including most elements of the style we now call classical architecture. They moved from trabeated construction mostly based on columns and lintels to one based on massive walls, punctuated by arches, and later domes, both of which greatly developed under the Romans. The classical orders now became largely decorative rather than structural, except in colonnades. Stylistic developments included the Tuscan and Composite orders; the first being a shortened,

simplified variant on the Doric order and the Composite being a tall order with the floral decoration of the Corinthian and the scrolls of the Ionic. The period from roughly 40 BC to about 230 AD saw most of the greatest achievements, before the Crisis of the Third Century and later troubles reduced the wealth and organizing power of the central government.

The Romans produced massive public buildings and works of civil engineering, and were responsible for significant developments in housing and public hygiene, for example their public and private baths and latrines, under-floor heating in the form of the hypocaust, mica glazing (examples in Ostia Antica), and piped hot and cold water (examples in Pompeii and Ostia)