1. the architecture of the ancient Romans, characterised by rational design and planning, the use of vaulting and concrete masonry, and the use of the classical orders only sporadically for purposes of architectural articulation and decoration.

Summary Article: **Architecture, civic, Roman Empire**  
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Over the last two decades, studies of Roman architecture in the imperial period have been influenced by theories of visual communication and the extent to which architectural developments mirror the society that produced particular buildings, precincts, or urban forms. The city of Rome itself has been the focus of much of this attention, most notably in the work of Paul Zanker (1990) on Augustan architectural vocabulary and of Diane Favro (2007) on the urban image of the Augustan capital (see Rome, city of: 3. Augustan). In their interpretations, which cover the location, accessibility, type, ornamentation, and scale of civic building, the functionality of Roman public architecture remained linked to form, but was increasingly employed for propagandistic purposes. These developments were also linked to the increasing flow of wealth into Rome in the Early Empire. While this wealth enabled ever greater building projects, the unequal distribution of influence in the new political system rendered the architectural competitiveness of the elites of the Late Republic (cf. Pompey and Julius Caesar) increasingly subordinate to imperial display and to the monopolization of building works by and for the new imperial political system (see Architecture, Roman Republic). The inherent religious element in this political system, including the deification of the imperial family, informed the development of religious and civic architecture over the following centuries.

Two of the most important textual sources for our knowledge of Augustan period architectural development are Vitruvius' ten books on architecture and the Res gestae of Augustus, which lists the buildings built, completed, or restored by Augustus. One of the most familiar, if hyperbolic, assessments of the city of Rome at this time is Augustus' own statement, reported by Suetonius, that he found Rome a city of brick and left it a city of marble (Suet. Aug. 29).

While the transitions and transformations of the Augustan period has attracted most attention the significant architectural and urban developments of the Flavian (Packer 2003), Trajanic and Hadrianic (Boatwright 1987), and Severan (Gorrie 2007) periods have also received scholarly attention in recent years. Recent studies have also depicted the influence of the capital city on the architectural development of the provinces. The competitive model of "one-upmanship" proposed for the eastern empire by Thomas (2007) argues that the Augustan brick-to-marble transition in Rome inspired emulation by provincial elites, whose building projects were aided by the widespread availability of marble in the second century CE.
civic space: the forum, the precinct, and the spaces of commemoration

One of the most fundamental transformations of architectural space in the first centuries BCE and CE was the progressive redefinition of the spaces of republican decision-making as locations of imperial commemoration. In the city of Rome itself, one can recognize a transformation of the Forum Romanum, at least from the construction of the aedes Divi Iuli, dedicated in 42 BCE, which truncated an earlier street and possibly the earlier Basilica Aemilia (Steinby 1987). The temple defined a new eastern edge of the open space, to which the later arcus Augusti was added in either 29 or 19 BCE (Carnabuci 1991). At this time we see the progressive elimination of vehicular and mercantile traffic from the central forum, with the effect of transforming the nature and role of civic space itself. The architectural development of the imperial fora, to the northwest of the Forum Romanum, embodies a new cultural logic of imperial civic space, which was less accessible and permeable, as these areas more closely resembled precincts than piazze or public squares. Recent excavations in the city of Rome (Meneghini and Santangeli Valenzani 2007) have rewritten our understanding of these important public spaces and emphasized the variation between republican and imperial architecture. This is not only the case in Rome, but in other cities of Roman Italy, where similar changes are evident at Pompeii, Ostia, Volsinii, and Paestum. Important developments in the architecture of imperial fora include the emergence of the so-called “forum tripartite,” prevalent in the western provinces. The development of fora was linked to the increasing development of basilicas for administrative purposes in the first and second centuries CE. Notable examples include the Basilica Ulpia in Trajan’s Forum in Rome, measuring 117 x 55 m.

Trajan’s Arch. Benevento, Italy. © Photo Scala, Florence.

In this period, we see the widespread use of one of the most distinctive and recognizable features of Roman imperial architecture, the triumphal arch (see Arches, honorific and triumphal). Although it has its origins in republican dedications, the arch came to be a defining feature of Roman urbanism in the empire, and most triumphal arches were constructed during the imperial period. Notable examples of imperial arches in the city of Rome include those of Titus (80), Septimius Severus (203–5), and Constantine I (312), while a key example demonstrating the changing nature of the arch is the triple arch...
at Arausio (Orange) (Beneventum) (21). Many arches were erected throughout the empire under Augusta Emerita (Mérida), although they differ from their republican antecedents by not exclusively commemorating military successes. Important examples of this kind are at Ancona and Timgad (Thamugadi) in Italy. Key provincial examples are at Pantheon, Rome and the quadrifrontal arch in Nemausus (Nîmes).

![Basilica of Maxentius at the Roman Forum, Rome. © Photo Scala, Florence. Courtesy of the Ministero Beni e Att. Culturali.](https://search.credoreference.com/content/topic/roman_architecture)

The architecture of religious space in the imperial period must be understood in the context of the divine status of the emperor and the imperial family. Important developments in temple architecture in the imperial period in Rome include the temple of Apollo Palatinus, the Pantheon, and the Hadrianic temple of Venus and Rome. These examples are striking, not only because they indicate the closer relationship between the emperors and the gods, but because of their architectural ingenuity. The Pantheon, constructed by Marcus Agrippa and rebuilt under Hadrian, notably featured the largest dome in the world ever constructed until 1881, made possible by engineering advances in the use of concrete and barrel vaulting (see vienna(vienne, France)). Some of the best preserved temples of the Roman imperial period survive in the provinces, most notably the Maison Carree in Colosseum and the Temple of Augustus and Livia in Lepcis Magna. In the eastern empire, the architectural development of temple complexes is most vividly represented by the monumental ruins at Baalbek, Lebanon. In the city of Rome itself, other important architectural developments can be seen in the development of imperial mausolea, notably that of Augustus and the Julio-Claudian family on the Campus Martius and that of Hadrian at Castel Sant'Angelo in Rome.
the architecture of urban living

While the civic architecture of the Roman imperial period was most closely associated with the spaces of dedication and commemoration discussed above, attention must also be paid to wider developments in urban architecture, which defined the period. Indeed, in the absence of a stringent definition of civic architecture in the Roman period, we can usefully include a wide range of building types under the criteria that they serve a purpose in civil life. This is particularly true, for example, of architecture for mass public use, including entertainment buildings and bath complexes (thermae), which served social and political as well as entertainment functions.

The Thysdrus (El Jem) is one of the most familiar examples of Roman architecture, noteworthy for its structural ingenuity, scale, and preservation. This monumental, free-standing, elliptical structure, which required more than 100,000 m³ of travertine, measured 189 x 156 m, rising to 48 m (Lancaster 2005). The outer wall was ornamented with a monumental facade comprising three architectural orders: Tuscan, Ionic, and Corinthian. Other notable amphitheaters are found at Puzzuoli and Verona in Italy, at Nimes in southern Gaul, and at Thysdrus (El Jem) and Amphitheater in North Africa (see Baths, bathing). In the imperial period, large, elaborate thermae throughout the city of Rome, including the Baths of Trajan, built on the Oppian in the early second century CE, served as social centers as well as places for bathing. The Baths of Caracalla (early third century CE) could accommodate over fifteen hundred users and featured the largest ceramic dome in the world, with a diameter of over 35 m, a testament to the sheer scale of Roman imperial constructions (DeLaine 1997; see Augusta Treverorum (Trier)).

The possibilities afforded by the perfection of concrete, vaulted construction can be seen in the Basilica of Maxentius (or Basilica Nova) in Rome. This structure, with groin-vaulted arches rather than columns supporting the ceiling, combined architectural elements from earlier basilicas and bath buildings and was, at the time of construction, the largest building in the world, with a roof span of over 31 m. In the provinces, the Constantinian basilica in Horrea with a vaulted roof span of over 26 m, was on a similar epic scale.

Another feature of imperial architecture was the construction of huge commercial or warehousing structures, most notably in the city of Rome, since they were necessitated by the large population of the metropolis. The earliest known horrea in the capital date from the late second century BCE,
although many of the largest and most architecturally imposing structures, such as the Horrea Agrippiana close to the Forum Romanum, date to the triumviral or Augustan periods (see Domitian). These were no longer simple granaries but performed a variety of civic functions, also accommodating banks and storage spaces for consumables or valuables. Notable examples include the Horrea Piperataria, built by Ostia on the Sacra Via, and the well preserved Horrea Epagathiana, constructed in Pompeii in the mid-second century CE (DeLaine 2005 on the commercial landscape of Ostia).

Commercial architecture was transformed in the imperial period by the construction of centralized market buildings, such as the Macellum Magnum in 59 CE. Depictions of this building on coins show a double-storied and domed central tholos on a high podium, demonstrating the monumentalization of commercial activity. Notable macella outside Rome include examples at Puteoli, Pont du Gard, and Lepcis Magna.

One of the most important architectural developments in imperial period was a proliferation of multi-storied, brick-worked (opus latericium) insulae, the most notable examples of which survive at Ostia and, in part, on the Capitoline at Rome. Regulations on building heights were passed under successive emperors, as insulae in Rome itself grew ever more vertiginous.

The monumental scale of architecture in imperial Rome can be explained both by the deployment of monumentality as for propaganda purposes and by the exploitation of advances in engineering, which enabled building structures of unprecedented size. High population densities in expanding and new urban communities demanded expanded scales of provision, be it in commercial, warehousing, or entertainment structures, while the wealth of the empire enabled greater expenditure on projects and materials. Advances in the use of vaults and arches made possible the construction of important utilitarian projects, such as the aqueducts of the city of Rome, the Pont Du Gard near Nimes, or the vaulted ceilings of the public baths and basilicas of the second and third centuries (for detailed overviews of Roman architecture, see Ward-Perkins 1981; MacDonald 1986; Gros 1996).

SEE ALSO:
Architecture, Greek; Bricks, Roman; Building materials and techniques, Greek and Roman; Forum; Forum Romanum; Rome, city of: 1–9; Technology, Roman; Temples, Roman; Water supply, Greek and Roman.

References and Suggested Readings

- DeLaine, J. (1997) The baths of Caracalla: a study in the design, construction, and economics of large-scale building projects in imperial Rome Portsmouth, RI.


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