Roman Arches 2 Essay, Research Paper

Roman Architecture

Many centuries before the birth of Christ, the city of Rome grew, prospered, and developed into a thriving Republic. As in most cultures, Rome’s buildings became more elaborate and impressive. They developed fantastic building technologies and ideas. The feats of Roman engineers were groundbreaking, and many structures built by this culture still stand today. With knowledge borrowed from the Greeks, Rome made impressive architectural achievements, these were namely major attributes of buildings, colossal structures, and a legacy that would influence later buildings (Cornell and Matthews 11).

According to legend, the city of Rome was founded in about 753 BC, by a group of shepherds. It sat at an ideal location, along 7 hills on the Tiber River 15 miles from the Mediterranean Sea in present day Italy. Situated in an ideal defensive location it grew. Roman rule spread throughout the Italian peninsula due to its military strength and diplomacy (Cornell and Matthews 17).

The first settlements discovered in Rome were on Tiber Island, later the sire of a temple to Aesculapius god of healing. Little is known of early Roman history because its first historical literature was recorded in 200 BC (Cornell and Matthews 14).

The earliest structures that were inhabited by the ancient Romans were crude huts. At the end of the seventh century BC these huts were demolished. This made way for a decidedly more urban aspect of construction with permanent stone temples, houses, and various other public buildings. Building was encouraged by the leader Tarquin I who lived from 116 to 579 BC. He made grants of land to be used as building sites. Tarquin promoted the development of shops and porticoes. Servius Tullius, his successor, expanded the city greatly. He surrounded it with a wall. The city of Rome further developed into a large power (Cornell and Matthews 52).

The ancient Romans created and borrowed fundamental types of concepts that made up buildings. The ideas that the Romans borrowed were basic ideas such as the column. A column is a vertical shaped pillar with the chief design concern of supporting a building. Most columns consist of three parts, the base, the shaft, and the capital. The shaft is usually cylindrical in shape. The Greeks had three basic types of columns, Doric, Ionic, and Corinthian. All three types have narrow fillets on them. These were small vertical slits that ran the length of the column. The Romans modified the column and added two types, Truscan and Composile. The columns became widely used in homes and temples in Greece and later in Rome (”Architecture”).

The Romans also borrowed from the Greeks other major structural designs. On the top of a column on most temples and public buildings rested an Entablature. This is a classic triangular shaped fa ade, or front of a building. The Entablature consists of four parts. The lowest part is the Architrave, which sits on top of the capital or upper part of a column. On top of that, the frieze was typically decorated with horizontal bands. The Cornice forms the upper part of the Entablature and extols beyond the frieze on the sides. On the very top sits a Pediment, a triangular segment between the lower Entablature and the roof (”Architecture”).

The Romans borrowed the concept of the arch but utilized it fully. An arch is a curved structure used to support the weight above it. At the top of an arch, there is located a keystone, which is a stone that holds the other parts in place. To construct an arch, the Romans supported the blocks with wood, until the keystone was inserted into the arch. A series of arches is called an arcade. Roman leaders built arches to honor their leaders, called triumphal arches. Arches were used more functionally to support aqueducts (”Architecture”).

The Romans also developed the vault. A vault is an arched ceiling or roof. Most common was the Barrel Vault but there were two other types. These two other types were the Groined Vault and the Ribbed Vault (”Architecture”).

A later type of vault that developed was the dome. A dome is a curved roof situated on a circular base. Perhaps the most famous building in Rome with a dome is the Pantheon. Columns were sometimes used in domes, but only as a decoration (”Architecture”).

The Roman wealthy lived in fairly large houses. A courtyard called an atrium served as a reception room. An opening in the atrium roof allowed light in. Water collected in a pool in the floor of the atrium. The dining room and bedrooms surrounded the atrium. The atriums were decorated by Mosaic walls and floors. A second courtyard called a peristyle included a garden, fountains, statues, and often a pool. Some houses had an enclosure at the rear of the house with fruit trees and vegetables.

Roman walls stretched great lengths and fortified the extreme boundaries of the great Roman Empire. By the year AD 100 the Romans had built a wall that extended into present-day Germany and Romania. Another wall built by the Romans was Hadrian’s Wall. It was built starting in AD 120 and stretched 13 miles. Parts of this wall still stand. Roman walls were build by Roman soldiers primarily when was did not grip the Empire. Hadrian’s Wall was 10 feet wide and 20 meters tall. It was made of stone and turf. Hadrian’s Wall was rebuilt three times and defended until AD 400.

Rome was home to incredible buildings. One of these buildings was the Circus Maximus (”Architecture”). It was built during the Augustan Age. It was of tremendous size, two thousand feet long by three hundred feet wide. It could seat 200,000 people. The stands were divided up into three sections. The people were protected from animals by a broad channel of water. A wall ran its length, dividing it in half and providing a track for chariot racing, which took place here. The building was faced in marble. The bowels of the stadium provided living quarters and shops. This area was favored by Horace, a great poet, as a place to absorb a vulgar atmosphere (Nardo 50).

Rome’s other great stadium was the Colosseum. It was also called the Flavian Amphitheater, and it was the largest outdoor arena in the city of Rome. It survives today as one of the most impressive feats of Roman engineering and architecture. The Colosseum was constructed during the reign of Emperor Vespasian. It was dedicated in AD 80 and until the year AD 404 it was the site of battle between gladiators, fake naval battles, and other forms of entertainment. During the Middle Ages, stone was taken from it to be used in the construction of new buildings. The Colosseum is oval-shaped and could accommodate 50,000 people on four stories on wooden and marble benches. The Colosseum is 157 feet high, 510 feet wide and 620 feet long. A wall 15 feet high separated the spectators from the arena. It was made of brick and concrete with stone on the exterior. On the first three stories there are arches supported by columns. The fourth story was added at a later date for decorative purposes. Awnings were supported by poles on the fourth stories and protected the spectators from the elements. The Colosseum had 80 entrances, to of which were reserved for the emperor. A network of passages and rooms existed beneath the structure (Cornell and Matthews 90).

Another famous Roman building is the Pantheon. It was built by the emperor Hadrian in AD 126. The Pantheon was dedicated to all of the Roman gods. It was constructed from brick and concrete and is circular. It measures 142 in diameter and its dome shaped roof rises 142 feet. A rectangular porch extols from the front of the building. The porch has a triangular roof supported by eight Corinthian columns. The interior is lit by an opening called an oculus at the top of the dome. A large amount of the building is original. It later served as a Christian church from AD 609 to AD 1885. It then became a burial place for famous Italian heroes (Cornell and Matthews 92).

The Romans built arches called triumphal arches to celebrate victories and other events. Perhaps the most famous was the Arch of Constantine at Rome. It was guilt to mark a victory over Maxentius, the “usurper” in AD 312. It was constructed of 2nd Century pieces of sculpture but new were added also. The sculptures on the arch gave a narrative of the campaign against Maxentius (Cornell and Matthews 189). One detail from the arch is Constantine demonstrating his liberality. Another famous arch was on erected by Athenians of Greece in AD 130. Hadrian had it built for he saw himself as the new founder of the city. On one side of the arch was the inscription, “This is Athens, the ancient city of Theseus.” On the other side is the inscription “This is the city of Hadrian and not of Theseus.” This arch stands on a road by the temple of the Olympian Zeus. Another triumphal arch is the Arch of Galerius which celebrated his victory over the Persians (Cornell and Matthews). On this arch are typical scenes of military and religious life. Another great arch is the arch at Timgad which once marked the entrance to the original colonial foundation on the road leading to Lambaeis. The ancient Forum of Rome is home to the arch made in 203 to honor Septimius Severus and his sons Caracalla and Geta. It also shows scenes from Severus’ campaign against the Parthians and Arabs. Another triumphal arch is the Arch of Saints which bears upon its frieze the commemorative inscription of C. Julius Rufus. He was priest of Rome and Augustus at an altar at Lugdunum. He contributed to the building of an amphitheater there (Cornell and Matthews 90).

The Romans built majestic temples to honor their gods and past leaders. The earliest surviving example of a temple in Rome is the circular shaped one at the Forum Boarium. It is purely Greek in style and was built in the 2nd century BC. A similar shaped temple is located at Tivoli. It was built at around the same time too. Another early temple is the one at Perigueux dedicated to the goddess Vesunna (Cornell and Matthews). It was circular shaped also and constructed very early in the history of the Roman Republic. Lesser deities accordingly had smaller temples. An example of this is the temple of Fortuna Virilis, the deity of a remote harbor. Many temples became Christian churches in the Middle Ages (Cornell and Matthews 89). In addition to the Pantheon, the Temple of Antoninus and Fautina had this happen to them (Cornell and Matthews 142).

The Romans built amphitheaters of all sizes, but most of which employed great architecture. An early amphitheater was located in Italica. It was dedicated to Hadrian and could seat 25,000. Another large theater built by the Romans was the one at Augst. Amphitheaters changed as communities grew. This amphitheater was no exception. It was first very small but later enlarged to a capacity of 8000. Roman colonies soon had their own amphitheaters (Cornell and Matthews 187). Perhaps one of the best examples in Asia Minor is the theater of Aspendus in Pamphylia. It was built in the 2nd century AD and greatly illustrates the importance of these monuments to the Roman people. Surprising numbers of amphitheaters were located near harbors, one example is the great theater along the Aradiane Harbor at the city of Ephesus. Aphrodisias is home to another tremendous theater that later became a Byzantine fortress (Cornell and Matthews 154). Walls and a rectangular arena were added so gladiatorial shows could be held. The amphitheater at El-Djem was among the largest in the empire. As was common, it was built on the site of a similar structure in the early 3rd century (Cornell and Matthews 163).

The Romans built baths in most towns as a place to bathe, relax, and socialize. These were located generally on the outskirts of the towns. The most famous one though, is at Bath in present day Britain. These baths were fed by Roman conduits. Baths were generally 8 meters in depth, as was the one at Bath. These baths brought prosperity to many Roman settlements, for the waters were thought to have medical properties. All peoples used these facilities. Recently some have been uncovered and it turns out that the waters are contaminated by bacteria (Cornell and Matthews 139).

The Romans were masterful builders of aqueducts. An aqueduct is defined as an artificial channel through which water is conducted to the place where it is used. Some aqueducts are tunnels dug through the earth. Others are channels of water forced through suspended structures. Rome was one of the only ancient cities that was readily supplied with water. In the year AD 97, a ninth aqueduct was added to bring water to Rome. These nine aqueducts brought 85 million gallons of water a day to Rome from mountain springs. Five more aqueducts were added later (Cornell and Matthews 130). Over 200 cities in the Roman Empire had aqueducts. One of these aqueducts was the Aqua Claudia which was constructed from AD 38 to AD 50. It was begun by Caligula and finished by Claudius. It carried water to Rome for a distance of 68 kilometers (Cornell and Matthews 127).

One of the most famous Roman aqueducts is the one at Segovia in present day Spain. It brought water to Segovia from a source 16 kilometers away. This aqueduct in particular had the full cooperation of the citizens of this town. Another famous aqueduct is the one over the River Gard that delivered water to Nimes from a source near Uzes. The accuracy of the engineering of this aqueduct is very impressive. The water dropped only 17 meters over a distance of 50 kilometers, the length of the aqueduct (Cornell and Matthews 127). When aqueducts arrive at cities the water is collected in a basin. On the bottom of the circular basin were holes that led to pipes, these fed essential civil locations. Private users were connected to the basin by pipes on the sides of the basins (Cornell and Matthews 185).

Rome’s Punic Wars enemy Carthage was conquered and then an aqueduct was constructed that conveyed water over 50 kilometers from a source near Zaghovan to Carthage (Cornell and Matthews 185). When water to be directed to a location was at a lower level than the place where it to the Romans needed to be directed found a way the to raise water up. They used waterwheels to lift the water up. The wheels themselves were powered by treadmills (Cornell and Matthews 185).

Rome’s mill architecture was also very genius. They used waterwheels to turn millstones and produce flour. One mill could produce enough flour to satisfy a population of 80,000 (Cornell and Matthews 185).

Roman architecture forever shaped our modern architecture. Architecture in the Middle Ages was also influenced by it. Some of the world’s most famous buildings were built by Rome or influenced by it (Bernard 66).

With knowledge borrowed from the Greeks, Rome made impressive architectural achievements, these were namely major attributes of buildings, colossal structures, and a legacy that would influence later buildings (Cornell and Matthews 11).

The Romans succeeded in building some of the most architecturally sound buildings of ancient times. They ideas were the forerunners of architectural practices today.

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