

Similarities in architectural design between the Renaissance and Neoclassical periods

“The desire to penetrate the secrets of antique design and construction was a leading ambition of Italian Renaissance architects,” (P373, Watkin.)

“‘Architects should strive for the qualities shown by the Greeks – noble simplicity, calm grandeur and precision of contour,’ – J.J. Winkelmann, 1764 [German architect of the Neoclassical period].” (P223, Nuttgens)

By the time of the arrival of the Renaissance in 15th Century Italy, the earlier period of Gothic design seemed played out. The key to a new vision of life and architecture came from increased access to classical texts. During the Renaissance, scholars read widely in classical literature. It was believed that classical civilizations could serve as models for modern cultural rebirth. In Italy, indigenous classical architecture was a constant reminder for architects of this civilization.



Tempietto di San Pietro in Montorio, Rome, 1502, by Bramante and Temple of Vesta, Rome, 205 AD
- as the most important temple of Ancient Rome, it became the model for Bramante's Tempietto

Neoclassicism in its early forms (1640-1750) was a reaction to the emotional Baroque style and the overbred fluffiness and elaboration of Rococo styles. It was a reaction in the direction of order and restraint. Neoclassical, or "new" classical, architecture describes buildings that are inspired by the classical architecture of ancient Greece and Rome.

The Renaissance style of architecture was catalysed by the rediscovery of architectural styles and theories of Ancient Rome. In a parallel way, the Neo-Classical period in the 18th century saw the birth of archaeology. Renewed interest in Roman antiquity was aroused with these archaeological studies and a systematic exploration of Greek antiquity. The discovery of antique ruins stimulated an admiration of the civilization, art and glories of the Greek and Roman era.

As was to be expected, in both periods, the styles didn't simply copy Classical styles verbatim, they also retained all the engineering advances and new materials of their own era.

Renaissance architecture is the architecture of the period between the early 15th and early 17th centuries in different regions of Europe, in which there was a conscious revival and development of certain elements of ancient Greek and Roman thought and material culture.

The first depictions of this Classical architecture emerged in Italy during the early 15th century when a copy of *De Architectura* ("Ten Books Concerning Architecture") by the 1st century Roman architect Vitruvius, was suddenly unearthed in Rome. The obvious distinguishing features of Classical Roman architecture were adopted by Renaissance architects. However, the forms and purposes of buildings had changed over time, as had the structure of cities. The ancient orders were analysed and reconstructed to serve new purposes.

The Renaissance style places emphasis on symmetry, proportion, geometry and the regularity of parts as they are demonstrated in the architecture of Classical antiquity and in particular ancient Roman architecture. In the picture above of the *Tempietto di San Pietro* we can see some typical aspects of Renaissance architecture such as the orderly arrangements of columns, pilasters and lintels, as well as the use of semicircular arches, hemispherical domes and niches.

Put simply, Renaissance buildings were modelled on the classical architecture of the Greeks and Romans, but retained modern features of Byzantine and Gothic invention, such as complex domes and towers. In addition, while replicating and improving on Classical sculpture, they also incorporated modern mosaics and stained glass, along with outstanding fresco murals.

The Florentine architect and artist **Filippo Brunelleschi** (1377-1446) began studying ancient Roman designs, and was convinced that ideal building proportions could be ascertained from mathematical and geometrical principles. It was Brunelleschi's magnificent 1418 design for the dome of Florence's Gothic cathedral (1420-36) - now regarded as the first example of Renaissance architecture - which ushered in a new style based on the long-neglected placement and proportion rules of Classical Antiquity.

Along with the rebuilt St Peter's Basilica in Rome, the dome of Santa Maria Del Fiore, the cathedral in Florence, is among the greatest Renaissance-style structures. The dome is used frequently in Renaissance architecture, both as a very large structural feature that is visible from the exterior, and also as a means of roofing smaller spaces where they are only visible internally. Domes had been used only rarely in the Middle Ages.



*The dome of **Basilica di Santa Maria del Fiore**, Florence and **The Dome of St Peter's Basilica**, Rome.*

Renaissance external walls are generally of highly-finished ashlar masonry, laid in straight courses. The corners of buildings are often emphasised by rusticated quoins. Basements and ground floors were often rusticated, as modeled on the Palazzo Medici Riccardi (1444–1460) in Florence.



*Rusticated stone walls of the **Palazzo Medici Riccardi** and Palladio's **Palazzo della Ragione**. Palladio compared the use of the **Palazzo della Ragione** as a law court with the function of a Roman basilica.*

Andrea Palladio (1508–80) is often seen as the most influential architect of the whole Renaissance. (In its purest form, Neoclassicism is seen as a style principally derived from the architecture of Classical Greece and the architecture of Italian Andrea Palladio.)

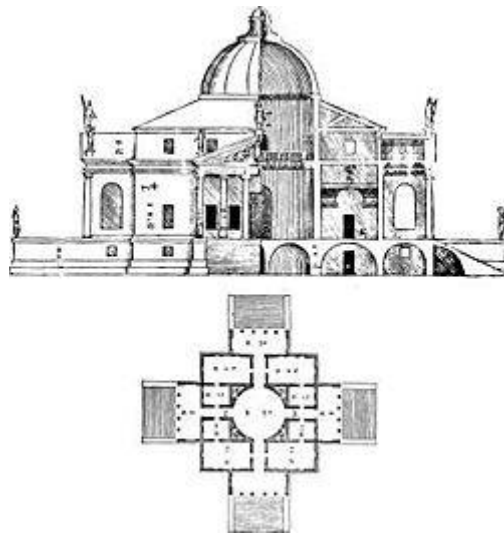
The Palladian style is one of consistency, order, logic in concepts, elegance and restraint in detail. While the architects of Florence and Rome looked to structures like the **Colosseum** and the **Arch of Constantine** to provide formulae, Palladio looked to classical temples with their simple peristyle form. Palladio's designs were characterized by calm and harmony. He published the measurements of his buildings and interiors with care.

The best known of Palladio's domestic buildings is **Villa Capra**, otherwise known as "**la Rotonda**", a centrally planned house with a domed central hall and four identical façades, each with a temple-like portico like that of the **Pantheon** in Rome.



Pantheon, Rome 126AD and Villa Capra La Rotonda, Vicenza 1565

Rotonda stands on an eminence that projects from the flank of a ridge overlooking the city of Vicenza. It is organised around the ideal of a classical temple portico, unique because it has four porticos, one for each cardinal point of the compass, radiating outward from a central dome. Each portico has a different view - mountains, hills, valleys, city, suburbs. Within each portico there are further refinements. Each is protected on the sides by diaphragm wall to protect from the sun, each wall is pierced by an arch to admit ventilation. Each portico is reached by a flight of steps. Despite the atmospheric principles, the villa is austere simple, flat walls, severe Ionic columns, an undecorated frieze. There are calculated proportional relationships between the rooms, between the length and the breadth of the room according to numerical ratios related to harmonic relationships within Greek musical scales. There is a feeling of harmony and grace.



Palladio's plan of Villa La Rotonda, in 'I Quattro Libri dell'Architettura' 1570.

The plans of Renaissance buildings have a square, symmetrical appearance in which proportions are usually based on a module. The development of the plan in secular architecture was to take place in the 16th century and culminated with the work of Palladio. **Rotonda** is a precise place for secular purpose showing the importance of secular and rational and beauty. Palladio controlled the classical rules not they him. There was an exactitude and centralization of plans but also an effortlessness that gives buildings their humanity.

Palladio's ideas became the model for architecture in Europe for many centuries. Such a combination of classical harmony with an appreciation of natural scenery was high among the qualities which endeared Palladio to Neoclassical architects in the 19th century.

Intellectually Neoclassicism was also symptomatic of a desire to return to the perceived "purity" of the arts of Rome, to the more vague perception ("ideal") of Ancient Greek arts but, also to 16th-century Renaissance Classicism itself. Neoclassicism took elements of Classical Renaissance architecture with an imposing and classical exterior. It is a severe, unemotional form of art but with a new elegance and simple sophistication.



Mereworth Castle, 1746 and Holkham Hall 1764

However, Neoclassical architects made a return to Classicism, not at first to the ancient forms of the Greeks or even the Romans but more to the Renaissance re-interpretations by Palladio. Colen Campbell (1676-1729) built a villa in Mereworth, Kent with a round central hall very similar to **Rotonda**. Holkham Hall in Norfolk had a Palladian portico entrance to the deer park. The association of architecture and its environment was an important part of the movement.



English Palladianism: Stourhead House, East facade, based on Palladio's Villa Emo - from Colen Campbell's Vitruvius Britannicus

The Palladian style used a motif of a high semi-circular topped opening flanked with two lower square-topped openings and this can be seen also, as above, in Neoclassical structures. Windows are used to bring light into the building and in domestic architecture, to give views.



The Cathedral of Vilnius (1783) by Laurynas Gucevičius and The Cathedral of Helsinki (1852)

A Neoclassical building, with clear echoes of Renaissance and particularly Palladian design, is likely to have some (but not necessarily all) of these features: symmetrical shape, tall columns that rise the full height of the building, triangular pediment, domed roof. Many of these features can be seen in the photos above. In a reaction to the rich elaboration of Baroque and Rococo, there were straight not curved lines, restraint and subtlety and horizontals. All unnecessary ornament should be eliminated, it was functional not decorative. Neo-classicism did away with pilasters and decorative fripperies and was a conscious return to primitive and muscular forms.



Schinkel's Altes Museum, Berlin and Bank of England, London

International Neoclassical architecture was exemplified in Karl Friedrich Schinkel's buildings, especially the Old Museum in Berlin, Sir John Soane's Bank of England in London and the newly built White House and Capitol in Washington, DC in the United States.

The Neoclassical was the period of revolutionary movements and ancient Greek democracy was highly appreciated in this period. Neoclassical themes were based on virtues such as heroism, courage, honour, justice, devotion to duty and self-sacrifice. The rise of Neoclassical Art was of some importance in the American and French revolutions. It was both a timely support for ancient regimes throughout Europe, from St Petersburg to Vienna, and a model for youthful empires-to-come like the United States of America. In the late 1700s and early 1800s, the newly-formed United States drew upon classical ideals to construct grand government buildings as well as smaller private homes.



The West Front of the United States Capitol (begun in 1793.) Its 'wedding cake' cast iron dome draws heavily from the Renaissance dome of St. Peter's Basilica in the Vatican

The **United States Capitol Building**, begun in 1793, with its neoclassical frontage and dome, is one of America's most iconic structures. The dome and rotunda were initially built from

wood, but later replaced with stone and iron. The overall design was partly inspired by the **Pantheon** in Rome.



Monticello, 1772. The house, which Jefferson himself designed, was based on principles described in the books of Palladio.

Thomas Jefferson's version of the **Rotonda** at Monticello added projecting bays and odd shaped rooms as he'd seen in Paris hotels. Palladiad motifs however, such as the central dome, four porticos and columns, as can be seen from the picture above, are central.

Indoors, Neoclassicism made a discovery of the genuine Roman interior, inspired by the rediscoveries at Pompeii and Herculaneum, which had started in the late 1740s, but only achieved a wide audience in the 1760s, with the first luxurious volumes of tightly-controlled distribution of *Le Antichità di Ercolano*. The new interiors differed from the more ornate Palladian styles and sought to recreate an authentically Roman and genuinely *interior* vocabulary, employing flatter, lighter motifs, sculpted in low frieze-like relief or painted in monotonous *en camaïeu* ("like cameos"), isolated medallions or vases or busts or *bucrania* or other motifs, suspended on swags of laurel or ribbon, with slender arabesques against backgrounds, perhaps, of "Pompeian red" or pale tints, or stone colours.



Interior of the Rotonda and 19th Century Neoclassical interior design, Britain

Neoclassicism continued to be a major force in academic art through the 19th century and beyond— a constant antithesis to Romanticism or Gothic revivals. By the mid-19th century, several European cities - notably St Petersburg, Athens, Berlin and Munich - were transformed into veritable museums of Neoclassical architecture.

Although it can be clearly seen that there are many similarities between Renaissance, particularly Palladian, and Neoclassical styles. There were of course differences too. Many Neoclassical buildings are modelled after **ancient temples**. A temple-style structure generally features a peristyle (exterior columns surrounding the building), which is rarely seen in Renaissance work. Also, while many Neoclassical architects embrace the basic features of Palladio's villas, they are clearly larger and more elaborate than the works of Palladio himself. Architectural innovations like layered cupolas and inner cores added strength to domes (eg. US **Capitol**) and their dimensions increased, lending increased grandeur to civic buildings, churches, educational facilities and large private homes.

The strongest unifying principle in both Renaissance and Neo-Classical design was that in each period the goal was to move forward using the best human achievements of the Classical past.