

## **History of Architecture**

Name

Subject

Professor

Date

## Introduction

Architecture has been part of human civilization, whereby buildings, infrastructure, and art reflect the social, economic, cultural, and political agendas of a given period. Notably, architecture began in the prehistoric era in different parts of the world, whereby forms were designed for certain functions. The evidence of humans shaping natural rocks, caves, and using materials for the construction of shelters, worship buildings, political residences, and interior utilities reflect the modern-day form and functional elements of buildings despite the change in shape, size, and type of materials. Furthermore, the available technology and resource constraints determined the themes of architecture, whereby prosperity coincides with decoration and significant ornamentation. Thus, the history of architecture forms a vital element of human civilization story whereby the type, structure, and form of buildings reflect the intended roles, social, political, and economic times during the period of concept, construction, and use.

### **Prehistoric architecture (11,600 BCE to 1000 BCE)**

Prehistoric times range from 11,600 to 3,500 BCE, but architecture has been part of human civilization for much longer timelines. Humans used stones, earthen mounds, and wood, among other materials, to construct both permanent and temporary houses. The concepts implemented in prehistoric architecture depict an understanding of geometry, which was largely influenced by cosmic bodies and cycles. For instance, the circular shape appears in prehistoric structures, such as the Gobekli Tepe in modern-day Turkey.<sup>1</sup> However, the specific timelines for these ancient timelines are unknown but modern historians and archeologists estimate the prehistoric times to have begun around 11,600 BCE and ended around 3,500 BCE.

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<sup>1</sup> Haklay, Gil, and Avi Gopher. "Geometry and architectural planning at Göbekli Tepe, Turkey." *Cambridge Archaeological Journal* 30, no. 2 (2020): 343-357.

Ancient Egyptian architecture depicts the mastery of engineering, geometry, and cosmic knowledge and the utilization of local materials to create architectural forms that have outlasted the natural hazards. Notably, ancient Egypt was ruled by powerful Kings (Pharaohs) whose kingdoms had a long understanding of astrology and cosmic cycles. Using engineering and geometrical skills, the Egyptian architects designed the pyramids, which were constructed using granite and limestone. In this region, wood was rare due to the hot desert conditions, but limestone was abundant. Society had a high connection to the spiritual world and their economic potential enabled them to utilize the vast resources to construct pyramids and other monuments. For instance, the Pyramids found in the Giza are thought to be temples and tombs of the rulers, whereby granite and limestone were used to make interlocking blocks that were laid in geometrical patterns to yield the current pyramids as shown in figure 1.<sup>2</sup> Hieroglyphics, brightly colored frescoes, and carvings were the main artistic works included in the architectural forms. Thus, ancient Egyptian architecture reflects the mastery of geometry, cosmic knowledge, engineering skills, and the thriving economic period in the ancient kingdoms.

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<sup>2</sup> Ghousayni, F., Amer Ali, and Ali Bayyati. "Findings of Patterns in Prehistoric Architecture-Case Study of the Pyramid of Cheops." *Lebanese Science Journal* 19, no. 2 (2018): 247-257.



Figure 1: Pyramid of Khafre, Giza Egypt<sup>3</sup>.

### **Classical Architecture (850 BCE- 476 CE)**

Classical architecture emerged in 850 BCE and dominated ancient Greece and Rome until 476 CE. This period is known to have shaped the architectural approach in the western world and undergone multiple revivals. The Greece Empire flourished and the Kings and emperors advocated for lavish architecture for political and worship buildings. Architects were respected and believed to have special talents from the gods. The resources provided by the political leaders of the time enabled the architects to built temples such as the Parthenon (12

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<sup>3</sup> Craven, Jackie. "A Quick Tour Of Architectural Eras". *Thoughtco*, 2021.  
<https://www.thoughtco.com/architecture-timeline-historic-periods-styles-175996>.

AD).<sup>4</sup> Thus, classic architecture is a reflection of economic and political systems that became the foundation of western architecture.

The architects, such as Marcus Vitruvius, were great mathematicians and philosophers, who opined that builders ought to apply mathematical principles in the construction of temples to create symmetrical plans and proportions. The architecture of this period was dominated by elaborate column styles and entablature, whose characteristics depend on the classical order: Doric, Ionic, and Corinthian. These classic orders coincide with different economic periods such as the Hellenistic period (323 to 146 BCE), when the Greek empire was at the height of power.<sup>4</sup> The temples built were larger than those built in the Greek period (700 to 323 BCE). Moreover, the adoption of ornamentation and decoration was determined by economic periods of the empires, whereby the Roman period (44 BCE to 47 CE) depicts decorative brackets arches, domes, and vaults.<sup>4</sup> Hence, flourishing economic periods led to increased ornamentation and decoration, using styles and materials gathered from different parts of the conquered regions.



Figure 2: The Pantheon, 126 AD, Rome Italy depicting the classical architecture of temples<sup>4</sup>.

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<sup>4</sup> Dolan, Marion. "Art, Architecture, and Astronomy in Classical Greece." In *Decoding Astronomy in Art and Architecture*, pp. 147-170. Springer, Cham, 2021.

## 20<sup>th</sup> Century Architecture

Neoclassicism was the first major transition from classic architecture, and it emerged in Europe from 1730 to 1925. This period was characterized by a rejection of opulence of the minority middle class and an increase in the middle class, leading to political changes such as equality and democracy ideals. The period was inspired by Greece and Roman architecture, and renaissance architects such as Andrea Palladio stimulated the return of classical architectural themes across Europe and the United States<sup>3</sup>. Thus, most buildings that adopted neoclassic styles resemble Ancient Greece and roman architecture in both functional and aesthetic elements.

Art Nouveau or New Style arose in France between the 1890s and 1920s. This style was inspired by looking into the nature of architectural themes, adoption of asymmetry, decoration, and embracement of arts, graphic design, and fabrics as part of the architecture. As the new style philosophy spread throughout Europe, popular artists such as Henry van de Velde (1863-1957) advocated for rationality in architecture and a shift from the opulence of the few. For instance, in 1903, Henry wrote “Think rationally, cultivate artistic sensibility in each one of us today can do this for himself”.<sup>5</sup> In Germany, new style architects opined similar sentiments to Henry De Verde, such as writing by Hans Poelzig in 1906: “Life in the modern era is dominated by economic questions; thus the participation of the people and artists in architectural problems of this kind - from the private dwelling to town planning - is constantly growing.”<sup>5</sup> Thus, Art Nouveau was characterized by asymmetry, decoration, and widespread adoption of artistic works in architecture, reflecting the economic period that had shifted from industrial revolutions, making people immerse in art.

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<sup>5</sup> Conrads, Ulrich, and Michael Bullock. "Programs and Manifestoes on 20th-century Architecture." *Journal of Aesthetics and Art Criticism* 34, no. 4 (1976).



Figure 3: Hôtel Lutetia in Paris depicting Art Nouveau style<sup>3</sup>

Neo-gothic architecture emerged between 1905 and the 1930s, which depicted strong vertical lines, arches, pointed windows, carvings, pinnacles, and other decorative traceries. A decent example of the neo-gothic style is the Chicago Tribune tower (1924), which was designed by Architects John Howells and Raymond Hood. Neo-gothic styles were largely conservative, which differs significantly from another architecture style of the same period known as Art Deco (1925 to 1937).<sup>3</sup> Art Deco comprised sleek forms and embraced machine age and ancient architectural themes. For instance, the Chrysler building in New York adopts the art deco motifs, which were inspired by ancient Egyptian architecture.<sup>6</sup> Notably, Art Deco and neo-gothic

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<sup>6</sup> Petersen, Jessica, and Daniel Springer. "The Chrysler Building." (2021).

architecture emerged in times of new technologies, with machinery and industrial materials being adopted. For instance, the Chrysler building utilized materials such as glass as part of the decorative elements. Thus, neo-gothic and Art Deco styles emerged at close periods, but the advent of technological adoption led to significant differences between the two forms.



Figure 4 (a): Tribute tower, Chicago (Neo-Gothic)<sup>5</sup>.



Figure 4(b): Chrysler Building, New York (Art Deco)<sup>6</sup>

Modernist architecture emerged in the early 1900s and proceeded to modern times depicting the adoption of new ways of thinking whereby function is emphasized over form under ideologies such as deconstructivism, structuralism, and formalism. The styles apply scientific, analytical, technological, and artistic methods to design and build structures that serve modern-day functions at the most affordable and appropriate use of resources. During modernism, diverse ideologies emerged, and in some cases, philosophical arguments emerged on the right approach to architecture. Constructivists such as Naum Gabo/Antoine Pevsner rejected the new but a different opinion was written by Hundertwasser in 1958, opposing rationalism whereby he opines that everyone should be allowed to build and express their artistic abilities without a need to follow a set of rules.<sup>5</sup> Frank Lloyd Wright's works exemplify modernist architecture, such as the Guggenheim Museum in New York<sup>7</sup>. Thus, modernist architecture led to diversified ideologies, which were enabled by the widespread availability of information, change of politics, and advocacy for the adoption of technology and new materials in architecture.

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<sup>7</sup> Jones, Paul, and Suzanne MacLeod. "Museum architecture matters." *Museum and Society* 14, no. 1 (2016): 207-219.



Figure 5: Guggenheim Museum, New York<sup>7</sup>.

### **Conclusion**

20<sup>th</sup>-century architecture is influenced by the shift in economic, political, technological, and academic scope in Europe, which began with neoclassic architecture (the 1900s) to present-day modernism. This architectural period was defined by changing information-sharing methods leading to an increased number of architects, artists, engineers, and philosophers. Another factor leading to the shift was changing economic times, and urbanization led to shrinking land sizes. Furthermore, the industrial revolution led to the production of new architectural materials. Other factors such as increased population resulted in the adoption of multistory buildings due to limitations in land sizes. These factors led to a shift towards new architectural styles whereby function precedes form and adopting technology and new materials led to changes in forms appearance and design.

## Bibliography

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